

JOURNAL OF THE AMERICAN GERIATRICS SOCIETY

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AGS24

VIRTUAL

AGS Geriatrics
Healthcare
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Leading Change. Improving Care for Older Adults.

AGS 2024 VIRTUAL ANNUAL SCIENTIFIC MEETING

MEETING DATES: Thursday, May 9—Saturday, May 11

PRE-CONFERENCE DAYS: Tuesday, May 7 & Wednesday, May 8

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American Geriatrics Society 2024
Annual Scientific Meeting

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ABOUT THE AMERICAN GERIATRICS SOCIETY

WHO WE ARE: Founded in 1942, the American Geriatrics Society (AGS) is a nationwide, not-for-profit society of geriatrics healthcare professionals dedicated to improving the health, independence, and quality of life of older people. Our members include thousands of geriatricians, advanced practice nurses, social workers, family practitioners, physician assistants, pharmacists, and internists who are pioneers in advanced-illness care for older individuals, with a focus on championing interprofessional teams, eliciting personal care goals, and treating older people as whole persons.

The Society provides leadership to healthcare professionals, policymakers, and the public by implementing and advocating for programs in clinical care, research, professional and public education, and public policy that can support us all as we age.

OUR MISSION: To improve the health, independence, and quality of life of all older people.

OUR VISION FOR THE FUTURE: We are all able to contribute to our communities and maintain our health, safety, and independence as we age.

We all have access to high-quality, person-centered care informed by geriatrics principles and free of ageism.

We all are supported by and able to contribute to communities where ageism, ableism, classism, homophobia, racism, sexism, xenophobia, and other forms of bias and discrimination no longer impact healthcare access, quality, and outcomes for older adults and their caregivers.

STRATEGIES FOR ACHIEVING OUR VISION

1. Expanding the geriatrics knowledge base by disseminating basic, clinical, and health services research focused on the health of all older people.
2. Increasing the number of healthcare professionals employing geriatrics principles when caring for diverse older persons by supporting the integration of geriatrics concepts into health professional education.

3. Recruiting diverse healthcare professional trainees into geriatrics by focusing on the rewards and potential of a career caring for older people.
4. Advocating for public policy that promotes the health and independence of diverse older Americans, with the goal of improving health, quality of life, and healthcare systems serving us all as we age.
5. Creating awareness about the ways geriatrics can support diverse older people remaining active, independent, and engaged in our communities.
6. Working across our other strategic priorities in health care to identify and eliminate ageism, ableism, classism, homophobia, racism, sexism, xenophobia, and other forms of social and structural bias/discrimination given their impact on health, safety, and independence as we age.

LEARN MORE: Visit www.americangeriatrics.org to learn more about the Society and its programs.

MEMBERSHIP IN THE AMERICAN GERIATRICS SOCIETY:

Correspondence relating to membership should be addressed to the American Geriatrics Society, 40 Fulton Street, 18th Floor, New York, NY 10038. Membership is open to all physicians and others interested in the health care of the older adult and fields of research directed toward its advancement. For more information on the American Geriatrics Society or to become a member, visit www.americangeriatrics.org.

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Leading Change. Improving Care for Older Adults.

THE AMERICAN GERIATRICS SOCIETY
40 FULTON STREET, SUITE 809
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Dear Annual Meeting Attendee:

The American Geriatrics Society Annual Scientific Meeting is the premier educational event in geriatrics, providing the latest information on clinical geriatrics, research on aging, and innovative models of care delivery. The 2024 Virtual Annual Meeting will address the professional and educational needs of geriatrics professionals from all disciplines through state-of-the-art educational sessions and research presentations.

This supplement of the *Journal of the American Geriatrics Society* is devoted to abstracts of the scientific presentations that are scheduled for the 2024 AGS Annual Scientific Meeting. We are hopeful that this supplement will be helpful to those of you who are planning to attend the meeting so as to maximize your attendance at educational, research, and clinical presentations of interest to you.

We are also pleased to provide these abstracts to subscribers of the Journal. We believe that they are an important way of keeping JAGS readers up-to-date on the latest advances in the field.

Sincerely,

Anna Chang, MD
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Donna M. Fick, PhD, RN, GCNS-BC, AGSF, FGSA, FAAN
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AMERICAN GERIATRICS SOCIETY 2024 ANNUAL SCIENTIFIC MEETING**May 7 - 11, 2024****RESEARCH PRESENTATIONS
SCHEDULE AT A GLANCE****WEDNESDAY, MAY 8, 2024****7:00 PM – 8:00 PM EASTERN
POSTER SESSION A****THURSDAY, MAY 9, 2024****10:00 AM – 11:00 AM EASTERN
EPIDEMIOLOGY PAPER SESSION**

Association of Non-English Language with Surgical Wait Time and Post-Operative Outcomes Among Older Adults with Hip Fracture
Christina Reppas-Rindlisbacher, MD

Low Mid-Life Dietary Protein Intake Predicts Higher All-Cause Mortality Over Five Decades: The Kuakini Honolulu Heart Program
Pedro Joaquin Ayau Aguilar

Trajectories of Xanthine Oxidase Inhibitor Use and Cardiovascular Risk among Older Adults
Earl Morris, PharmD, MPH, PhD

Prevalence of Potentially Inappropriate Medications Among Community-dwelling Patients with Dementia and Associated Healthcare Utilization
Caroline M. Mak, PharmD candidate

**11:15 AM – 12:00 PM EASTERN
PLENARY PAPER SESSION**

FOXO3 Genotype Mitigates the Effect of Low Bioavailable Testosterone on Mortality: The Kuakini Honolulu Heart Program
Ayumi Emily Sakamoto, MD

Home Based Primary Care (HBPC) for Independence at Home Qualified (IAHQ) Veterans Lowers Costs and Expands Home and Community Based Services (HCBS)
Bruce Kinosian, MD

Decision Regret in Patients Considering Implantable Cardioverter Defibrillator
Tais Moreira Protasio, MD

**1:15 – 2:15 PM EASTERN
GERIATRIC EDUCATION PAPER SESSION**

Downward Trends in Geriatrics Education: A National Landscape Survey of Geriatrics Faculty Leaders at US Medical Schools
Beverly E. Tomita, Medical Student & Catherine Dawson, MD

Enhancing Geriatric Care: Insights from the UW ECHO in Geriatrics Program
Aylin Ozdes, PhD

Geriatrics Workforce Enhancement for Psychiatric Providers

Maria H. van Zuilen, PhD

Alignment of the ACGME Milestones for Internal Medicine and Family Medicine with Patient Priorities Care Core Skills

Timothy W. Farrell, MD, AGSF

3:45 – 4:45 PM EASTERN**DISPARITIES: CAN WE DO BETTER? PAPER SESSION****Improving Functional Status among Older Adults Living in Subsidized Housing: A Pilot Study**

Rebecca Brown, MD

Social Isolation in Adults with COPD is Associated with Higher All-Cause Mortality Risk

Angela Suen, MD

Sex-Related Differences in Exosomal Proteins Concentrations Throughout Age

Yuan P. Song, MSc

Transfers among Long-Stay Nursing Home Residents with Intellectual and Developmental Disabilities, Serious Mental Illness and Dementia

Ana Montoya, MD, MPH

5:00 - 6:00 PM EASTERN**PRESIDENTIAL POSTER SESSION B****FRIDAY, MAY 10, 2024****10:00 AM – 11:00 AM****DEPRESCRIBING: LET'S GET IT DONE! PAPER SESSION****Implementation Strategies of Deprescribing Electronic Case Reviews for Veterans at Risk for Falls**

Juliessa M. Pavon, MD, MHS

High Anticholinergic Burden of Hip Fracture Patients Reveals a Target Population for Deprescribing

Aidan McAnena

Development and Implementation of an Aspirin Deprescribing Algorithm for Primary Prevention of Cardiovascular Disease in Older Adults

Ugene Gabrielle Sano, PharmD

Adapting a Deprescribing Program for Older Adults with Type 2 Diabetes and Cognitive Impairment and their Caregivers

Clarissa Ferguson, MPH

12:15 PM – 1:15 PM**COGNITIVE IMPAIRMENT AND DEMENTIA PAPER SESSION****Frequency of Suboptimal Dementia Medication Prescriptions**

Robb D. Mcilvried, MD, MPH & Jennifer Beck

Relationship Between Hip Fracture and Post-Fracture Cognitive Impairment Using the National Health and Aging Trends Study

Priya Singh

APOE Epsilon Variants and Composite Risk of Dementia, Disability and Death in the Health and Retirement Study

Santiago Clocchiatti-Tuozzo, MD

Lower Urinary Tract Symptoms and Cognitive Impairment among Participants of the REasons for Geographic and Racial Differences in Stroke (REGARDS) Cohort Study

Belinda Williams, MD

2:45 PM – 3:45 PM

CLIN-STAR PAPER SESSION

A Role for Intraoperative Hypotension in Postoperative Blood-Brain Barrier Dysfunction in Older Non-Cardiac Surgery Patients

Michael J. Devinney, MD, PhD

Association Between Social Determinants of Health and Delivery of Post-Acute Rehabilitation to Older Survivors of Critical Illness

Snigdha Jain, MD

Prevalence of Unrecognized MCI and Dementia in Urban Federally Qualified Primary Care Clinics

Ambar Kulshreshtha, MD, PhD

Ambulatory Care Fragmentation After Emergency Department Visits Among Older Adults

Cameron Gettel, MD

2:45 PM – 3:45 PM

POSTER SESSION C (Students & Residents)

SATURDAY, MAY 11, 2024

10:00 AM – 11:00 AM

ENSURING SHARED DECISION MAKING WITH OLDER ADULTS PAPER SESSION

Amplifying Patient Wishes Through Scribe Outreach in Advance Care Planning

Anil Prasad, BA & Carolyn Chen

User-Centered Development of a Portal Based Advance Care Planning Tool for Persons Living with Cognitive Impairment and Their Care Partners: Usability Testing Study

Jennifer Gabbard

Geriatric Considerations in Treatment Conversations with Older Adults with Low-Risk Breast Cancer

Christina A. Minami, MD, MS

Impact of Goal-Directed Care in Patients with Functional Disabilities: A Quality Improvement Outcome Study

Caroline Blaum, MD, MS

1:00 PM – 2:00 PM

THE AGING HEART: TAKING CARE OF THE WHOLE PERSON PAPER SESSION

Preoperative Frailty, Operative Stress and Cardiac Complications After Non-Cardiac Surgery

Chan Mi Park, MD

Regulation of Cardiomyocyte Senescence by α 1A Adrenergic Receptors

Noah Rice, BS

Association of Egg Consumption with Mortality: Results of a 48-year Follow-Up

Donna Kritz-Silverstein, PhD

Patient Perspectives of Mobile Health Cardiac Rehabilitation Among Older Adults

Kirra KE Borrello, BS

2:15 PM – 3:15 PM

HEALTH SERVICE & POLICY RESEARCH PAPER SESSION

Frailty and Time at Home after Post-Acute Care in Skilled Nursing Facilities

Sandra Shi

Patterns of End-of-Life Care and Healthcare Spending Among Persons with Dementia in Medicare Accountable Care Organizations

Jessica J. Zhang

Changes in Health Care Use when Older Adults with Diabetes Develop Dementia: A Retrospective Cohort Study

Stephanie Nothelle

Influence of Hospice Enrollment on Exposure to Central Nervous System-Active Medications Among Medicare Decedents with Dementia

Lauren Gerlach, DO, MS

Paper Session EPIDEMIOLOGY

Thursday, May 9
10:00 am – 11:00 am

P1

Association of non-English language with surgical wait time and post-operative outcomes among older adults with hip fracture

C. Reppas-Rindlisbacher,^{1,5} A. Boblitz,² R. A. Fowler,⁵ L. Lapointe-Shaw,⁵ K. A. Sheehan,³ T. Stukel,² N. M. Stall,^{5,4} P. A. Rochon.^{5,4} 1. *Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, ON, Canada*; 2. *Institute for Clinical Evaluative Sciences, Toronto, ON, Canada*; 3. *Department of Psychiatry, University of Toronto, Toronto, ON, Canada*; 4. *Women's Age Lab and Women's College Research Institute, Women's College Hospital, Toronto, ON, Canada*; 5. *Department of Medicine, University of Toronto, Toronto, ON, Canada*.

Background: Patients with a non-English preferred language in English-dominant health care settings are at increased risk of adverse events that may result from communication errors and inequitable access to care. We examined whether non-English preferred language was associated with prolonged surgical wait time and post-operative outcomes in older patients undergoing hip fracture repair.

Methods: This was a population-based, retrospective cohort study of community-dwelling older adults (age ≥ 66 years) who underwent hip fracture surgery between January 1, 2017 and December 31, 2022 in Ontario Canada. We compared relative risks of operative delay beyond 24 hours, and post-operative outcomes such as delirium, length of stay and discharge destination by preferred language using overlap weighting on the propensity score to account for age, sex, comorbidities, and other baseline characteristics.

Results: Among 35,238 patients who had hip fracture surgery (mean [SD] age 84.6 [7.8] years, 69.6% women), 6,423 (18.2%) reported a preferred language that was not English. Compared to English speakers, patients with a non-English preferred language had a small increased risk of operative delay beyond 24 hours (51.7% vs. 50.3%, relative risk (RR) 1.04, 95% CI 1.01-1.06) and an increased risk of post-operative delirium (18.8% vs. 14.6%, RR 1.21, 95% CI 1.13-1.30). Non-English language was associated with longer length of stay (risk ratio 1.12, 95% CI 1.08-1.17) and nursing home placement (RR 1.15, 95% CI 1.02-1.30) but not with discharge to inpatient rehabilitation, 30-day mortality, or 30-day readmission.

Conclusions: Among Ontario older adults undergoing hip fracture surgery, having a non-English preferred language was associated with surgical wait time above 24 hours, delirium, longer length of stay, and new nursing home placement. Strategies to improve culturally sensitive and language-concordant care are required to reduce these inequities in hip fracture care.

P2

Low Mid-Life Dietary Protein Intake Predicts Higher All-Cause Mortality Over Five Decades: The Kuakini Honolulu Heart Program.

P. J. Ayau Aguilar,¹ R. Chen,^{2,1} T. Donlon,² A. Wen,¹ C. Takenaka,¹ K. Lubimir,¹ S. Christensen,¹ R. Allsopp,¹ B. Willcox,^{1,2} K. Masaki.^{1,2} 1. *Geriatric Medicine, University of Hawai'i System, Honolulu, HI*; 2. *Research, Kuakini Medical Center, Honolulu, HI*.

Background: The current Recommended Dietary Allowance (RDA) of dietary protein intake is 0.8 gm/kg body weight, but studies on the effect of dietary protein on all-cause mortality have had mixed results. We studied whether mid-life protein intake (total, plant, animal) predicted mortality over 5 decades of follow-up in an Asian male population.

Methods: The Kuakini Honolulu Heart Program (HHP) is a prospective cohort study of Japanese-American men in Hawaii. The baseline exam was conducted in 1965-68 in 8,006 men ages 45-68 years. Trained dietitians completed a 24-hour diet recall. Protein intake by kg body weight was calculated and stratified as plant or animal source. After excluding those missing data on diet or weight, our analytic sample included 7,486 men who were followed for mortality until December 31, 2022 (57 years). We created quintiles of protein/kg groups for analysis. The lowest quintile had mean total protein intake of 0.83 ± 0.17 gm/kg (range 0.13-1.05).

Results: Mean protein intake per kg body weight was 1.5 ± 0.6 gm/kg. Mean animal and plant protein intake per kg of body weight were 1.1 ± 0.5 gm/kg and 0.4 ± 0.2 gm/kg respectively. Age-adjusted mortality rates were 39.7, 38.2, 37.4, 36.7 and 36.8 per 1,000 person years, in the lowest to highest quintiles respectively (p for trend <0.001). Similar patterns were seen for quintiles of animal protein (p for trend=0.009) and plant protein (p for trend <0.0001). Using Cox regression, adjusting for baseline age, years of education, cardiovascular risk factors and prevalent CHD, stroke and cancer, there was a significant increase in mortality in the lowest quintile for both animal and plant protein intake (RR=1.08, 95%CI=1.00-1.17, p=0.039; and RR=1.13, 95%CI=1.05-1.22, p=0.001, respectively) using the highest quintile as reference. Age at death was also significantly lower in the lowest quintile of total (p for trend <0.001), animal (p for trend=0.032) and plant protein (p for trend <0.0001) respectively.

Conclusion: Low mid-life dietary protein intake was a significant independent predictor of all-cause mortality over 5 decades of follow-up in community-dwelling Japanese-American men in Hawaii. Both low plant and low animal protein intake were associated with increased mortality.

P3

Trajectories of Xanthine Oxidase Inhibitor Use and Cardiovascular Risk among Older Adults

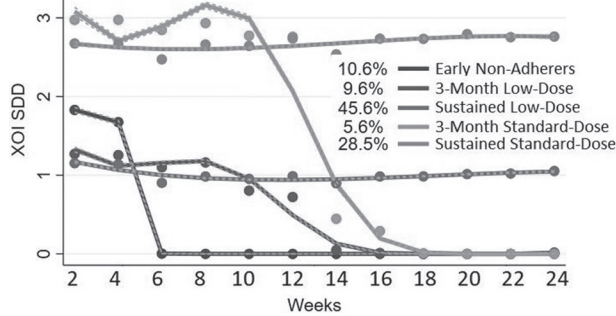
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Background: There remains controversy regarding the benefits of XOIs in cardiovascular risk prevention, and most previous studies have failed to account for XOI dose and duration of use. We aimed to 1) examine trajectories of XOI use and 2) evaluate cardiovascular outcomes according to trajectories.

Methods: Using 2011-2020 Medicare claims, we identified new users of XOIs. We used group-based trajectory modeling to identify XOI use patterns by calculating average standardized daily dose (SDD) for XOIs for each 2-week period in the first 6 months of use. We considered allopurinol 300 mg/day=febuxostat 40 mg/day=1 XOI SDD. We then constructed inverse probability of treatment weighted Cox survival models to compare time-to-incident MI/stroke across trajectories.

Results: We identified 68,840 beneficiaries (mean age: 75.6; 76.4% non-Hispanic white) who initiated XOIs and 5 XOI trajectories including: early non-adherers (10.6%), 3-month low-dose use (9.6%), sustained low-dose use (45.6%), 3-month standard-dose use (5.6%), and sustained standard-dose use (28.5%). Compared to early non-adherers, each of the other trajectories were associated with significantly lower risk of MI/stroke. Further, the 2 'sustained use' trajectories were associated with the lowest risk of MI/stroke (sustained low-dose, aHR: 0.92; sustained standard-dose, aHR: 0.91).

Conclusions: These findings suggest that older adults may benefit from interventions aimed at improving XOI adherence and further support a potential role for XOIs in cardiovascular risk prevention.



P4 Student Presentation

Prevalence of Potentially Inappropriate Medications Among Community-dwelling Patients with Dementia and Associated Healthcare Utilization.

C. M. Mak,¹ C. M. Clark,¹ D. M. Jacobs,¹ S. G. Feuerstein,¹ R. Singh,² R. G. Wahler.¹ 1. *Pharmacy Practice, University at Buffalo, Buffalo, NY*; 2. *University at Buffalo Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY*.

Background

Anticholinergics, antipsychotics, benzodiazepines, and non-benzodiazepine sedatives (Z-drugs) have been identified in the Beers Criteria as Potentially Inappropriate Medications which can worsen dementia or cognition (CogPIMs). While previous studies have characterized CogPIMs prevalence, little data exist associating healthcare utilization. The Medical Expenditure Panel Survey (MEPS), a nationally representative survey in the United States, includes medication and healthcare utilization. Our objective is to characterize the prevalence of CogPIMs in patients over 65 with dementia. Secondly, healthcare utilization will be evaluated based upon CogPIMs usage.

Methods

This was a cross-sectional analysis of data from MEPS between 2011-2015. Respondents aged 65 and above with a diagnosis of dementia were included. Exposure to CogPIMs was defined as any fill for one or more of the medications within the class during the study period. Survey-weighted procedures were used to generate population estimates of the prevalence of the studied CogPIMs. The Cochran-Armitage test for trend was used to assess trends in prevalence for each CogPIM over the study period. Logistic regression models were constructed to estimate odds ratios (ORs) with 95% confidence intervals (CIs) for any hospitalization. Negative binomial models were assembled to estimate incidence rate ratios (IRR) and 95% CI.

Results

This study included ~13 million community-dwelling older adults with dementia. The period prevalence of the studied CogPIMs was 11.5%, 7.5%, 15.9%, 3.8% for anticholinergics, antipsychotics, benzodiazepines, and Z-drugs, respectively. Benzodiazepines demonstrated a significant trend with an increase from 8.9% in 2011 to 16.4 in 2015 ($P=0.02$). Z-drugs were associated with increased odds of hospitalization (OR=2.57; 95%CI = 1.16-5.67; $P=0.02$). Exposure to antipsychotics was associated with an increased rate of hospitalizations (IRR=1.51; 95%CI=1.07-2.14; $P=0.02$).

Conclusions

These findings show that CogPIMs are used commonly among older adults with dementia. Antipsychotics and Z-drugs were associated with increased hospitalizations, suggesting the potential to be the target of future interventions to prevent medication associated harm.

Paper Session PLENARY

Thursday, May 9
11:15 am – 12:00 pm

P5 Student Presentation

FOXO3 Genotype Mitigates the Effect of Low Bioavailable Testosterone on Mortality: The Kuakini Honolulu Heart Program.

A. E. Sakamoto,¹ R. Chen,^{2,1} T. Donlon,² B. Morris,^{1,2} A. Wen,¹ R. Allsopp,¹ B. Willcox,^{1,2} K. Masaki.^{1,2} 1. *Geriatric Medicine, University of Hawai'i System, Honolulu, HI*; 2. *Research, Kuakini Medical Center, Honolulu, HI*.

Introduction: Studies have found that age-related decline of testosterone is associated with increased risk of all-cause mortality. The gene *FOXO3* regulates numerous homeostatic pathways, and the minor allele (*G*) of SNP *rs2802292* has been associated with longer lifespan compared to major allele homozygote (*TT*). We studied whether bioavailable testosterone levels predict all-cause mortality in an older Asian male population, and are the first to examine its interaction with *FOXO3* genotype.

Methods: The Kuakini Honolulu Heart Program is a longitudinal cohort study of Japanese-American men in Hawaii since 1965. Serum testosterone was measured at Exam 4 (1991-93) when subjects were 71-93 years old. Bioavailable testosterone levels were calculated and quintiles were used for analysis. After excluding those missing data on hormone levels or *FOXO3* genotype, our analytic sample included 3,138 men who were followed for mortality until December 31, 2022 (32 years). We also performed stratified analyses by *FOXO3* genotype.

Results: Age-adjusted mortality rates were significantly higher in lower quintiles of bioavailable testosterone (Q1=110.5, Q2=98.4, Q3=97.6, Q4=98.0, and Q5=93.5 per 1,000 person-years of follow-up, p for trend=0.0012). Multivariate Cox regression adjusted for baseline age, cardiovascular risk factors, prevalent chronic diseases (coronary heart disease, stroke, cancer, dementia) and *FOXO3* genotype found an increased risk of total mortality in Q1 (HR=1.20, 95% CI=1.07-1.36, $p=0.003$), using Q5 as reference. There was a significant interaction with *FOXO3* genotype ($p=0.029$). When stratified by *FOXO3* genotype, we found a significant association between bioavailable testosterone and total mortality in the *FOXO3 TT* group (HR=1.34, 95% CI=1.14-1.59, $p<0.001$). However, in *FOXO3 G* allele carriers, there was no significant association between bioavailable testosterone and mortality. Mortality was not associated with bioavailable estradiol levels.

Conclusion: Low bioavailable testosterone was associated with increased total mortality in older Japanese-American men with *FOXO3 TT* genotype, but not in those who were *FOXO3 G* allele carriers. The findings suggest a potentially protective role of the longevity-associated *FOXO3 G* allele by mitigating the adverse effects of low testosterone.

P6

Home Based Primary Care (HBPC) for Independence at Home Qualified (IAHQ) Veterans Lowers Costs and Expands Home and Community Based Services (HCBS)

B. Kinoshian,¹ S. Schmitt,² O. Intrator,³ C. Phibbs.²
1. *GECDAC-Philadelphia VAMC, Philadelphia, PA*;
2. *GECDAC-Palo Alto, Palo Alto, CA*;
3. *GECDAC-Canandaigua, Canandaigua, NY*.

Background Whether the Department of Veterans Affairs (VA) Home-Based Primary Care (HBPC) program with a broad interdisciplinary team (IDT) reduces total care cost (TCC) for high need Veterans remains uncertain.

Methods Using combined VA and CMS data for Veterans receiving primary care from VA, we applied IAHQ criteria (hospitalization and post-acute care in the prior 12 months, 2+ Activities of Daily Living impairments and 2+ chronic conditions) to identify high need Veterans. We used the HBPC Masterfile to identify those newly receiving HBPC. We used coarse matching (Year/month of HBPC admission or first IAHQ date, age, JEN Frailty Index (JFI), dementia status, and Veteran Integrated Service Network) to avoid exacerbating unobserved selection in the control cohort. We assembled VA and Medicare costs before and after HBPC admission, adjusting to 2020 dollars. Cost regressions included risk scores, past utilization, demographics, and 37 diagnostic clusters, to predict the change in Per Veteran Per Month (PVP) cost from the 12 months before to the 12 months after index. A similar process was applied to Veterans receiving primary care in 2016-18.

Results Among 34,533 IAHQ Veterans in 2012-2014, 3,453 were incident HBPC (9.9%). Despite matching, HBPC Veterans had higher HCC scores (3.5, SD 1.7 versus 2.9, SD 1.5), JFI (7.5, SD 1.8 v 7.2, SD .6) and probability of death (.22, SD .18 v .14, SD .05). TCC pre-index averaged \$6,740 PVP (SD \$9,954). The change in VA TCC (difference in differences) was \$331 PVP (7.9%) lower for HBPC Veterans, while VA and Medicare TCC was \$1,066 PVP (17.5%) lower. Among 18,467 IAHQ Veterans in 2016-18, 2,059 were incident HBPC (11%). The change in VA and Medicare TCC was \$2,321 PVP (29%) lower for HBPC Veterans, with HBPC reducing TCC by \$1148 PVP ($p < .0001$) for terminal year Veterans (29%); non-terminal year HBPC was not significant. Hospitalizations were 12% lower among HBPC veterans compared to IAHQ non-HBPC Veterans without matching, and 30% lower after matching ($p = .018$). Between 2012-4 and 2016-18, \$558 (58%) of increased HBPC PVP cost was for new HCBS services.

Conclusion For High Need Veterans, HBPC lowered hospitalizations and TCC, with a greater effect for Veterans in their terminal year.

P7 Resident Presentation

Decision Regret in Patients Considering Implantable Cardioverter Defibrillator

T. Moreira Protasio,¹ L. Helmkamp,² B. Wallace,² D. Matlock.^{2,3}

1. Internal Medicine, University of Colorado System, Denver, CO; 2. Adult and Child Consortium for Health Outcomes Research and Delivery Science, Aurora, CO; 3. University of Colorado Anschutz Medical Campus, Aurora, CO.

Background: Over 200,000 implantable cardioverter-defibrillators (ICDs) are implanted annually in the US. ICDs can prevent death, but have been associated with decreased quality of life. This study aimed to describe regret among patients who were offered an ICD and secondarily evaluate factors that could affect regret, such as being shocked by a defibrillator, knowledge around ICDs, anxiety and depression.

Methods: This study is a secondary analysis of the DECIDE-ICD Trial (Decision Support Intervention for Patients offered ICDs), which was a pragmatic, type 2 implementation-effectiveness hybrid, stepped-wedge randomized controlled trial, and enrolled patients between 2018 and 2021. Participants were enrolled from 6 centers across the US and followed for 6 months. Participants were adults who were offered ICD implantation, ICD replacement, or cardiac resynchronization therapy with defibrillator for primary prevention of heart failure. Baseline, 1- and 6-month surveys were completed, including the Decision Regret Scale, Decision Quality Knowledge Scale, "ICD experiences" questionnaire, PHQ-2, and GAD-2. Analysis was done using chi-squared tests and log binomial regression models.

Results: 533 participants were included in this study. Patients had a mean age of 65 years, were 29% female, 85% identified as white, 11% as black and 3% as Hispanic. 96% of patients graduated High School. Overall regret was found to be low. Less than 11% of

participants showed significant regret at 6 months. Regret was lower in the defibrillator group when compared to the no device group (RR (95%CI): 0.19 (0.10, 0.38)). In the no-device population, higher regret was associated with lower knowledge at baseline. Regret was not significantly associated with being shocked, although we observed a trend of increasing regret with increasing number of shocks. Regret rates were also significantly higher in those with depression (RR (95% CI): 1.90 (1.08, 3.36)).

Conclusions: Regret was low among patients offered an ICD. Regret was higher in the population who did not receive a device, and in this population, lower knowledge was associated with higher regret. Providers should educate patients on the benefits but also the risks of receiving a device in order to reduce decision regret.

Paper Session

GERIATRIC EDUCATION

Thursday, May 9

1:15 pm – 2:15 pm

P8 Student Presentation

Downward trends in Geriatrics Education: A national landscape survey of geriatrics faculty leaders at US medical schools

B. Tomita,⁶ A. Schwartz,^{4,3} A. M. Sullivan,^{5,3} C. M. Dawson.^{1,2}

1. New England Geriatric Research Education and Clinical Center, VA Bedford Healthcare System, Bedford, MA; 2. Medicine, Boston University Chobanian & Avedisian School of Medicine, Boston, MA; 3. Harvard Medical School, Boston, MA; 4. New England Geriatric Research Education and Clinical Center, VA Boston Healthcare System Jamaica Plain Campus, Boston, MA; 5. Shapiro Institute for Education and Research, Beth Israel Deaconess Medical Center, Boston, MA; 6. Carle Illinois College of Medicine, Urbana, IL.

Background: Prior studies have found that US medical schools are more likely to offer geriatrics education as an elective than as a requirement. Experts have advocated for all medical students to acquire skills in geriatrics prior to graduation, and Minimum Geriatrics Competencies for medical students have been proposed and updated. However, the extent to which US medical schools are currently implementing geriatrics education is unknown. This national study of geriatrics faculty leaders closes a significant gap in the extant literature.

Methods: An electronic survey targeting geriatrics faculty leaders was disseminated to all 191 accredited allopathic and osteopathic medical schools in the US in 2021. The survey explored the presence of geriatrics curricular elements and geriatrics faculty attitudes. Survey results were analyzed using RStudio.

Results: Fifty seven percent of US medical schools participated (107/191). Table 1 presents results from this study (2021) compared with geriatrics education trends over time (2005: Warshaw et al, JAGS 2007; 2010: Bragg et al, JAGS 2012).

Conclusion: Compared to prior studies, there has been a downward trend in geriatrics clinical activities at US medical schools. Geriatrics educators, medical school leadership, school accreditation bodies, and lawmakers must collaborate to address pressing imperatives for training the healthcare workforce to care for our nation's older adults. Amidst ongoing geriatrics workforce shortages, the need is only more urgent for medical students to graduate with fundamental skills in evidence-based geriatric care.

Table 1. Percentage of US medical schools offering elective or required clinical activities over time via geriatrics faculty self-report, presented with reference population data from the US Census Bureau

	2005	2010	2021
Required geriatrics-specific clerkship	23% (23/99)	27% (26/95)	10% (11/107)
Required geriatrics activity embedded into another required clerkship	48% (48/99)	Not reported	38% (41/107)
Elective geriatrics clerkship	89% (88/99)	87% (83/95)	71% (76/107)
US Population age 65 and above	12.4%	13.1%	16.9%

**P9
Enhancing Geriatric Care: Insights from the UW ECHO in Geriatrics Program**

A. Ozdes,^{1,2} A. L. Teply,¹ C. Carrico,¹ C. McKibbin.¹ 1. *Psychology, University of Wyoming, Laramie, WY*; 2. *Psychology, Tekirdag Namik Kemal Universitesi, Tekirdag, Turkey*.

Background. The aging demographic in the US amplifies the need for specialized healthcare for older adults. Yet, the number of specialists is inadequate to meet the need and underlines the urgency of increasing knowledge and skills for geriatric care among healthcare providers (Rowe, 2021). The Extension for Community Healthcare Outcomes (ECHO) model offers a promising solution, utilizing innovative methods, including video conferencing, to provide specialty training, mentoring, and consultation to primary care clinicians (Bennett, 2018).

Method. Our study analyzed the recommendations from interprofessional UW ECHO in Geriatrics hub team members to identify the salient needs of cases presented to the network. Case presentations were guided by the Institute for Healthcare Improvement’s Age-Friendly framework, specifically, the 4Ms of geriatric healthcare—What Matters, Mentation, Mobility, Medication. Cases included 44 older adults (30 female, $M_{age} = 76.53$, $SD_{age} = 11.14$) residing in various settings. A content analysis of hub team recommendations was conducted by two coders. Interrater reliabilities were established for What Matters (ICC = .97), Medication (ICC = .99), Mentation (ICC = .96), and Mobility (ICC = .88).

Results. Hub members provided recommendations for the patients, covering the 4Ms. The mean frequency of recommended 4Ms was 11.55 (SD = 7.47) for What Matters, 4.80 (SD = 6.65) for Medication, 5.84 (SD = 7.76) for Mentation, and 1.16 (SD = 2.22) for Mobility. A new thematic element emerged during the coding process, focusing on the well-being of healthcare providers. The mean frequency of recommended well-being for healthcare providers was 0.50 (SD = 1.15), emphasizing the relationship between patient care and the welfare of healthcare providers.

Conclusions. By analyzing the recommendations for care from the ECHO hub team, this study identifies salient workforce training needs, particularly in the most frequent area of recommendation - What Matters to the older adult. Other areas of frequent recommendation requiring more guidance included Medication and Mentation with less emphasis on Mobility. Beyond the 4Ms framework, there’s a need for training focusing on the well-being of healthcare providers. Addressing these insights may help to optimize the impact of ECHOs addressing geriatric care.

**P10
Geriatrics Workforce Enhancement for Psychiatric Providers**
C. Fernandez,² M. H. van Zuilen,^{1,6} R. Rodriguez,³ C. Callaway-Lane,⁴ S. Nasr,⁷ J. Kramer.⁵ 1. *Medical Education, University of Miami Miller School of Medicine, Miami, FL*; 2. *Gainesville VA GRECC, Gainesville, FL*; 3. *Psychology, Durham VA Health Care System, Durham, NC*; 4. *Tennessee Valley VA GRECC, Nashville, TN*; 5. *Greater Los Angeles VA GRECC, Los Angeles, CA*; 6. *Miami VA GRECC, Miami, FL*; 7. *VISN 8 VA Sunshine Healthcare Network, St Petersburg, FL*.

Background: The Geriatric Scholars Program (GSP) is a workforce development initiative to infuse geriatrics into the Department of Veterans Affairs (VA) primary care settings. In 2022, we piloted the Psychiatric track (GSP-P) in VISN-8 with funding from the VHA Office of Rural Health. The program has since been approved for national expansion. We present an overview of the development, implementation, and evaluation of the program.

Methods: In the initial phase, a working group identified education/training needs from the perspectives of general psychiatry, geriatric psychiatry, geriatric medicine and geropsychology. We then designed a multimodal program based on adult learning principles. Participants, comprised of VA psychiatric prescribing providers, earn the designation of Geriatric Scholar upon completion of the core GSP-P program components: 1) A 5-day live, virtual review course on geriatric psychiatry competencies that includes a 1-day intensive workshop in quality improvement (QI); and 2) A 6-month mentored implementation of a QI project in the Scholar’s local environment. Participants completed satisfaction surveys and pre/post-conference self-evaluations of their confidence in geriatric psychiatry competency domains.

Results: Two cohorts of general psychiatric providers completed the training (N=24). Twenty (83% response rate) completed post-conference evaluations immediately following the review course. Of these, 100% endorsed that: their competence/knowledge of the session topics had been enhanced; the knowledge acquired would lead to making changes in their clinical practice; or the knowledge acquired would improve patient outcomes. Satisfaction ratings for the individual instructional activities were high. Following the review course, 15 participants (63%) initiated QI projects, with 8 of these being completed and the rest in progress.

Conclusions: Our findings suggest that this innovative educational model improves competence among VA psychiatrists and equips them with skills to implement local QI projects that have had tangible impacts on their clinics, teams, and mental health care provided to older adults.

**P11
Alignment of the ACGME Milestones for Internal Medicine and Family Medicine with Patient Priorities Care Core Skills**
J. Ouellet,¹ N. Sanders,² R. Ben,² O. Preston,² M. Tinetti,¹ T. W. Farrell.² 1. *Internal Medicine (Geriatrics), Yale School of Medicine, New Haven, CT*; 2. *Medicine (Geriatrics), University of Utah Health, Salt Lake City, UT*.

Background: There is a critical need to educate health professions trainees in core geriatrics principles. The John A. Hartford Foundation and The Institute for Healthcare Improvement created the Age Friendly Health System initiative to disseminate evidence-based principles of the 4Ms of geriatrics – What Matters, Medications, Mentation, and Mobility. Patient Priorities Care (PPC) is an evidence-based approach to operationalize “What Matters” into actionable decision making and has been shown to reduce overall treatment burden, medications taken, and number of new self-management and diagnostic studies ordered. We describe a process in which Internal Medicine (IM) and Family Medicine (FM) ACGME milestones were evaluated to identify their alignment with the core skills that comprise a PPC curriculum.

Methods: Using the knowledge of PPC framework of decision making, we examined ACGME milestones for IM and FM. Next, we identified those milestones that overlap with core skills of PPC and created a crosswalk that maps the milestones to the core skills of PPC to identify how PPC training moves learners move from lower to higher skill levels within each aligned milestone.

Results: The 4 core PPC skills align with 13 of the 21 IM ACGME milestones and 10 of the 19 FM ACGME milestones. PPC addresses ACGME IM/FM milestones in patient care (PC), medical knowledge (MK), systems-based practice (SBP), practice-based learning and improvement (PBLI), and interpersonal and communication skills (ICS) (Table). A PPC curriculum helps learners achieve levels 3-5 in all aligned milestones.

Conclusions: A PPC curriculum aligns with more than half of the IM and FM ACGME milestones. Next steps include conducting focus groups with IM and FM residents, program directors, and geriatrician clinician-educators to understand their perceptions of how a PPC curriculum can meet residents' needs.

Overlap of PPC Core Skills with IM and FM Residency ACGME Milestones

PPC Core Skill	FM Milestones	IM Milestones
Transform values into specific and realistic health outcome goals	PC 3: Health Promotion and Wellness (level 5) PC 4: Ongoing Care of Patients with Undifferentiated Signs, Symptoms or Health Concerns (level 4) PBLI 1: Evidence-Based and Informed Practice (level 4)	PC 5: Patient Management - Outpatient (level 5) PBLI 1: Evidence Based and Informed Practice (level 4)
Change complex decision-making to includes broad consideration of factors impeding goal attainment	PC 1: Care of the Acutely Ill Patient (level 5) PC 2: Care of Patients with Chronic Illness (level 5) PC 3: Health Promotion and Wellness (level 5) MK 1: Demonstrates Medical Knowledge of Sufficiency Breadth and Depth to Practice Family Medicine (level 3) SBP 3: Physician Role in Health Care Systems (level 3) PBLI 1: Evidence-Based and Informed Practice (level 4) ICS 1: Patient and Family-Centered Communication (level 5) ICS 2: Interprofessional and Team Communication (level 5)	PC 1: History (level 5) PC 3: Clinical Reasoning (level 4) PC 4: Patient Management - Inpatient (level 4) PC 5: Patient Management - Outpatient (level 5) MK 1: Applied Foundational Sciences (level 5) MK 2: Therapeutic Knowledge (level 4) MK 3: Knowledge of Diagnostic Testing (level 4) SBP 2: System Navigation for Patient Centered Care (level 3) SBP 3: Physicians' Role in Health Systems (level 3) PBLI 1: Evidence Based and Informed Practice (level 4) ICS 1: Patient and Family Centered Communication (level 4) ICS 2: Interprofessional and Team Communication (level 5)
Change in communication with patients and other health professionals	PC 2: Care of Patients with Chronic Illness (level 5) PC 4: Ongoing Care of Patients with Undifferentiated Signs, Symptoms or Health Concerns (level 4) MK 1: Demonstrates Medical Knowledge of Sufficiency Breadth and Depth to Practice Family Medicine (level 3) SBP 2 (level 3) SBP 3 (level 3) ICS 1: Patient and Family-Centered Communication (level 5) ICS 2: Interprofessional and Team Communication (level 5)	PC 5: Patient Management - Outpatient (level 5) SBP 2: System Navigation for Patient Centered Care (level 3) SBP 3: Physicians' Role in Health Systems (level 3) ICS 1: Patient and Family Centered Communication (level 4) ICS 2: Interprofessional and Team Communication (level 5)
Change in documentation to be focused on patient priorities	PC 3: Health Promotion and Wellness (level 5) ICS 2: Interprofessional and Team Communication (level 5)	PC 4: Patient Management - Inpatient (level 4) PC 5: Patient Management - Outpatient (level 5) PC 6: Digital Health (level 3) ICS 2: Interprofessional and Team Communication (level 5)

**Paper Session
DISPARITIES: CAN WE DO BETTER?**

**Thursday, May 9
3:45 pm – 4:45 pm**

**P12
Improving Functional Status among Older Adults Living in Subsidized Housing: a Pilot Study**

R. Brown,¹ Q. Lu,¹ D. Xie,¹ T. Guevara,¹ J. Kalman,¹ D. Reyes-Farias,¹ B. Resnick,² C. Reid,³ D. Mechanic-Hamilton,¹ K. Rascovsky,¹ S. D. Stites,¹ J. Long.¹ 1. *UPenn, Philadelphia, PA;* 2. *University of Maryland, Baltimore, MD;* 3. *University of California, Berkeley, CA.*

Background:

Among the nearly 2.9 million older Americans with lower incomes living in subsidized housing, there are high rates of functional impairment. To address this issue, we adapted an existing physical and functional activity intervention for older adults (Function Focused Care) and pilot tested its feasibility, acceptability, fidelity, and preliminary effectiveness for improving functional status for older adults living in subsidized apartment buildings.

Methods:

The 2-month intervention included 4 components implemented by a nurse facilitator and subsidized housing staff member: (1) assessments conducted with housing staff to recommend changes in site policies and environment to optimize older adults' physical activity and function; (2) education for housing staff and older adults; (3) establishing function-focused goals for older adults; and (4) mentoring and motivating older adults to increase activity. Due to the COVID pandemic, the intervention was delivered remotely. Surveys and enrollment data were used to measure feasibility (ability to achieve recruitment goal [N=70]), fidelity (delivery of intervention as intended), acceptability (5-point Likert scale; 5, most acceptable), and preliminary effectiveness (self-reported change from baseline to 2 months in ability to perform 7 activities of daily living [ADLs], 5 instrumental ADLs, and 3 mobility tasks; range, 0-30, higher scores indicate more severe impairment). Change was assessed using Fisher's exact test.

Results:

A total of 75 older adults from 12 housing sites were enrolled in the intervention. Mean age was 72.4 years, 32% identified as Black, and 23% as Latinx. Seventy-six percent of enrolled participants completed all intervention components. Acceptability was rated as 5 of 5 (IQR, 1). Disability scores were 3.3 at baseline and 2.6 at follow-up (p=.001). The improvement in disability score was driven by a reduction in mobility task disability.

Conclusions:

In this pilot study, an adapted Function-Focused Care intervention for older adults living in subsidized housing was feasible, acceptable, had high fidelity, and improved self-reported functional status.

**P13
Social Isolation in Adults with COPD is Associated with Higher All-Cause Mortality Risk**

A. Suen,¹ A. Kotwal.² 1. *Pulmonary and Critical Care, University of California San Francisco, San Francisco, CA;* 2. *University of California San Francisco, San Francisco, CA.*

Social isolation and loneliness are gaining increasing recognition as important social determinants of health in adults across multiple chronic conditions. Social isolation is an objective deficit in the frequency of contact with family, friends, and community, and loneliness is the subjective emotional distress from feeling that one's social life is inadequate. Our objective was to examine the association of social isolation and loneliness with all-cause mortality in adults with COPD.

We used the Health and Retirement Survey (2006-2020 waves). COPD was self-reported. We defined social isolation using a previously published 15-item scale, and loneliness using the UCLA 3-item Loneliness Scale. The primary outcome was all-cause mortality. We used Cox proportional hazard regression and Kaplan-Meier to examine the association between loneliness, social isolation and mortality. Multivariate adjustment was determined a priori and included age, sex, race and ethnicity, education level, comorbidities, cognitive impairment, supplemental oxygen use, and depression. We excluded tobacco use history and number of impairments with activities of daily living as we determined that these covariates likely lie on the causal pathway.

Participants (n=1,221) were on average 69 (range 36-96) years old. 50% were female, 72% were White. Overall, 15% reported social isolation and 18% loneliness. After median follow up of 5.3 years, 512 (42%) deaths occurred. Hazard regression models demonstrated that both moderate and severe social isolation was associated ($p < 0.001$) with an elevated all-cause mortality risk (HR 1.14, 95% CI: 0.64-1.54 and HR 2.69, 95% CI: 1.55-4.67, respectively) compared to persons without social isolation. In contrast, loneliness was not associated with higher mortality (HR 1.05, 95% CI 0.84-1.32, $p = 0.6$).

Adults with COPD who were socially isolated had a higher risk of all-cause mortality. Given the higher prevalence of social isolation amongst adults with COPD, these results support screening for social isolation as part of routine management of COPD. There appears to be a dose dependent risk in between social isolation and mortality and so those who experience severe social isolation may benefit most from interventions to reduce isolation.

P14 Student Presentation

Sex-Related Differences in Exosomal Proteins Concentrations throughout Age

Y. Song,^{6,1} G. D. Pinilla Monsalve,^{5,1} O. Monchi,^{5,1} L. Varshney,² A. Hoshino,³ A. Hanganu.^{4,1} 1. *Institut Universitaire de Geriatrie de Montreal, Montreal, QC, Canada*; 2. *Department of Electrical and Computer Engineering, University of Illinois Urbana-Champaign, Urbana, IL*; 3. *Tokyo Iryo Gakuin Daigaku Toshokan, Tama, Japan*; 4. *Department of Psychology, Universite de Montreal Faculte des Arts et des Sciences, Montreal, QC, Canada*; 5. *Department of Radiology, Universite de Montreal, Montreal, QC, Canada*; 6. *Department of Psychology, Universite de Montreal, Montreal, QC, Canada*.

Background. Exosomes, extracellular vesicles carrying molecules such as proteins (*i.e.* exosomal proteins), have shown in the recent years to be promising biomarkers for diagnosis detection and prediction, notably in cancer and Alzheimer's disease. Yet, our understanding of exosomes' association with age and sex remains unclear. Exosomes are synthesized by organ activity, which is influenced by hormonal concentrations. We thus hypothesize sex-related disparities in the association with aging. Specifically, we aim to identify correlations between protein concentrations and age, as well as differences in age-related changes between sexes.

Methods. Mass spectrometry was used on blood samples from healthy individuals aged between 2 and 91 years (N = 434, males = 214, females = 220) to obtain exosomal proteins concentrations for all participants. 45 proteins were used for the analyses and were present in all participants. Spearman correlations and ANOVAs were run to assess age-related trends and sex differences in proteins concentrations.

Results. Statistical analyses revealed that for the female subsample, only two proteins showed a significant association with age. On the other hand, in the male subsample, statistically significant strong positive correlations (Spearman's Rho, $\rho > .4$, $p < .05$) were observed between age and 29 out of the 45 proteins. Finally, significant interactions between sex and age on protein concentrations were found in both sexes.

Conclusions. Our preliminary results suggest that sex and age have a significant interaction on protein concentration both in women and men. Nevertheless, exosomal protein concentrations increase with age, mostly in men.

P15 Student Presentation

Transfers among Long-Stay Nursing Home Residents with Intellectual and Developmental Disabilities, Serious Mental Illness and Dementia

D. McWilliam, P. Park, J. Bynum, A. Montoya. *University of Michigan, Ann Arbor, MI.*

Background: Long-stay nursing home (NH) residents receive continuous care in NHs. Transferring long-stay NH residents can compromise their quality of life and has been associated with negative consequences including functional and cognitive decline, increased isolation, behavioral problems, and hospitalizations. Some residents may be at particular risk of transfer. Objectives: a) to determine whether the risk of NH-to-NH transfer is higher among long-stay NH residents with Intellectual and Developmental Disabilities (IDD), or Serious Mental Illness (SMI), and/or Alzheimer's Disease and Related Dementias (ADRD), and b) to assess the factors associated with transfer for residents with these diagnoses.

Methods: Cross-sectional study; Michigan long-stay NH residents in 2019. Using Minimum Data Set (MDS), residents who had a NH-to-NH transfer were allocated into five groups: 1) IDD; 2) SMI+ADRD; 3) ADRD; 4) SMI; 5) 'all others'. We examined transfer rates for each group. We assessed the odds of transfer for each group after adjusting for age, sex, race, marital status, Medicaid enrollment, clinical indicators, and facility characteristics. We undertook stratified analysis to determine factors associated with transfers within each group.

Results: N = 37,638 long-stay NH residents; 2.3% had a NH-to-NH transfer (1.9% for IDD; 2.8% for SMI+ADRD; 1.9% for ADRD; 2.6% for SMI; 2.5% for 'all others'). After adjusting for above characteristics, residents in the SMI+ADRD group were 38% percent more likely to transfer than those in the 'all others' group (AOR 1.38; 95%CI [1.14-1.68]). In stratified analysis, factors associated with transfers varied by group. Being married (in SMI+ADRD,ADRD), experiencing hallucinations or wandering (in ADRD), or rejecting care (in IDD) were associated with higher odds of transfer. Being older (>75y)(in SMI+ADRD,ADRD,SMI), experiencing falls (in SMI+ADRD,ADRD,'all others'), living in a NH with more beds (in SMI+ADRD,SMI), having mod/sev depression (in ADRD), or mod/sev cognitive impairment (in ADRD,'all others') were associated with lower odds of transfer.

Conclusions: Considering Michigan long-stay NH residents in these groups, residents with both SMI and ADRD are at the highest risk for transfer to another NH. Factors associated with transfers varied in each group. Further research focused on these potentially vulnerable groups is needed to help inform NH transfer policies.

Paper Session DEPRESCRIBING: LET'S GET IT DONE!

Friday, May 10
10:00 am – 11:00 am

P16 Implementation Strategies of Deprescribing Electronic Case Reviews for Veterans at Risk for Falls

J. M. Pavon,^{1,2} M. Pepin,² W. Bryan,² R. Sloane,² J. Bailey,² I. Igwe,² C. Colón-Emeric.^{1,2} 1. Duke University, Durham, NC; 2. VA GRECC, Durham, NC.

Background: Deprescribing programs targeting Falls Risk Increasing Drugs (FRIDs) (e.g benzodiazepines, antidepressants, antipsychotics, and anticholinergics) can reduce medication burden and falls risk. Yet, implementing these programs in health systems faces challenges, including time and resource intensity. This study compares implementation strategies and assesses the change in FRID drug burden over one year.

Methods: Prospective cohort evaluation comparing three FAME Deprescribing Program implementation strategies with a control cohort. FAME, a pilot deprescribing program targeting medication safety in veterans aged ≥ 65 at high fall risk and on ≥ 1 FRID, involved electronic case reviews and deprescribing recommendations by a multi-disciplinary team. Strategy #1: Electronic Health Record (EHR) note with recommendations sent to primary care and/or mental health provider (PCP/MH), patient telephone counseling by pharmacist and nurse, new prescription orders entered by team, and a mailed patient educational letter. Strategy #2: EHR note to PCP/MH, provider implements deprescribing recommendations at the next visit, and patient letter. Strategy #3: Patient letter only. Primary outcome: change in FRID burden measured by modified Drug Burden Index (DBI) at 1 year, comparing all strategies to the control group.

Results: Strategy #1 involved patient cases (n=235) and matched controls (n=235) based on age, FRID medication category, and date of FAME review; Strategy #2 had n=166; and Strategy #3 had n=177. The mean change in DBI at 1 year for each strategy was compared to the control group, resulting in -0.32 (p=0.16) (Strategy #1); -0.46 (p<0.01) (Strategy #2); -0.46 (p<0.01) (Strategy #3), and -0.19 (controls). The odds of decreasing DBI by a clinically significant threshold of 0.5 compared to the control group were OR 1.25 (95% CI [0.9,1.8]), 1.50 [0.99,2.3], and 1.73 [1.2,2.6] for Strategies #1, #2, and #3, respectively.

Conclusions: All strategies led to a notable reduction in FRID drug burden after one year. Even low-resource strategies demonstrated significant and clinically meaningful reductions compared to controls, highlighting that strategy intensity may not be the key factor. Deprescribing strategies targeting high-risk patients, along with patient and provider education, show potential for effectively reducing medication burden.

P17 Student Presentation High Anticholinergic Burden of Hip Fracture Patients Reveals a Target Population for Deprescribing

A. McAnena,¹ A. R. Zullo,² R. Joshi,² S. Berry.³ 1. UMass SOM, Worcester, MA; 2. Brown SPH, Providence, RI; 3. HMS, BIDMC, Boston, MA.

Common drugs such as antidepressants and antipsychotics may block the action of acetylcholine. These anticholinergic drugs can cause adverse effects including cognitive dysfunction and falls. Older adults with hip fractures are at risk for adverse events and should undergo a drug review upon hospitalization. This study aims to describe the anticholinergic burden (ACB) of patients hospitalized for hip fracture.

A retrospective cohort study was conducted using a population of Medicare beneficiaries aged ≥ 66 who were hospitalized for hip fracture and discharged to receive post-acute care in a skilled nursing facility. Hip fractures were identified using MedPAR. Anticholinergic drug use in the 100 days prior to fracture was identified using Part D claims. Each anticholinergic drug was assigned a score of 1-3 according to the validated ACB scale. The number of anticholinergic drugs and total ACB score at time of hip fracture were summed for each patient. ACB scores were categorized as none (0), moderate (1-2), or high (≥ 3).

Among 360,926 adults with hip fracture, mean age was 84.3 yrs, 76.9% were female, and 92.1% were white. Median number of anticholinergic drugs was 2 (IQR 1-3) with a maximum of 12. Fig. 1 provides the distribution of ACB scores with a median score of 2 points (IQR 1-4) and maximum of 20. 21.5% of patients had no ACB, 39.7% had moderate ACB, and 38.8% had high ACB.

Four out of ten patients had high ACB at time of hip fracture; these patients represent a target for deprescribing. High ACB may indicate a lack of consensus on how to deprescribe anticholinergics and suggests a need to develop and disseminate standards for deprescribing in acute and post-acute care.

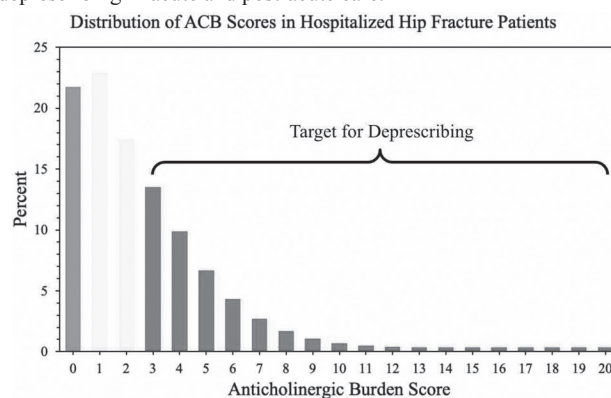


Fig 1. Distribution of ACB scores at time of fracture.

P18 Resident Presentation Development and implementation of an aspirin deprescribing algorithm for primary prevention of cardiovascular disease in older adults

U. Sano,¹ J. A. Bente,¹ M. Uricchio,¹ T. Redling,² N. Zeffren.²
1. Pharmacy, Cooperman Barnabas Medical Center, Livingston, NJ;
2. Geriatrics, Cooperman Barnabas Medical Center, Livingston, NJ.

Purpose: Recent literature has demonstrated that the use of low-dose aspirin for primary prevention of atherosclerotic cardiovascular disease (ASCVD) in older adults has been associated with a higher incidence of bleeding events without additional benefit compared to standard ASCVD prevention strategies. This study evaluated the impact of an aspirin deprescribing algorithm on inappropriate aspirin use in patients older than 70 years old across two primary care offices.

Methods: This IRB-approved, pre- and post-interventional study included patients 70 years and older on low-dose aspirin indicated for primary prevention of ASCVD with office visits scheduled from April 1, 2023–March 30, 2024. An aspirin deprescribing algorithm was developed by an interdisciplinary team to guide prescribers with deprescribing. The pharmacist identified patients eligible for deprescribing via chart review of visits from April 2023–October 2023 and alerted the prescriber via chart note. The post-interventional phase began November 2023. The primary endpoint is incidence of inappropriate aspirin use, defined as patients taking aspirin without documented ASCVD history. Secondary endpoints include patients eligible for aspirin deprescribing, incidence of major and minor bleeds

based on the International Society on Thrombosis and Hemostasis criteria, major cardiovascular events, and cardiovascular-related hospitalizations. Major cardiovascular events were defined as non-fatal myocardial infarction and non-fatal stroke.

Results: 474 patients were included in the study. The mean age was 81.9 years and males were 30%. The incidence of inappropriate aspirin use in the pre-implementation group was 29.1% and 138 patients were eligible for deprescribing. For the post-implementation group, data as of November 2023 shows 9 patients have had aspirin deprescribed, resulting in 27.2% inappropriate aspirin use. No occurrences of major and minor bleeds, major cardiovascular events, and cardiovascular-related hospitalizations have been observed. We plan to continue to track this data as the deprescribing program continues.

Conclusion: Through the use of a deprescribing algorithm, pharmacists can play a role in reducing the incidence of inappropriate aspirin use in older adults for the indication of primary ASCVD prevention.

P19

Adapting a Deprescribing Program for Older Adults with Type 2 Diabetes and Cognitive Impairment and their Caregivers

C. Ferguson,¹ J. J. Mejia,² R. Grant,² R. Sudore.¹ 1. University of California San Francisco, San Francisco, CA; 2. Kaiser Permanente, Oakland, CA.

Background: Strategies are needed to improve deprescribing for older adults with Type 2 Diabetes (T2D) and early Alzheimer’s disease and related dementias or mild cognitive impairment (ADRD-MCI). Among older adults with early ADRD/MCI, we assessed the feasibility of and barriers to a PREPARE for Your Diabetes Care deprescribing program (PREPARE-T2D), adapted from the evidenced based PREPAREforYourCare.org program.

Methods: Eligible patients from Kaiser N. CA were ≥75 years old, prescribed insulin or sulfonylureas, had a HbA1c < 8%, and early ADRD/MCI (chart review/validated assessments). We also included caregivers. Dyads were shown 4 brief videos and written action plans designed to teach them how to discuss T2D deprescribing with clinicians. We conducted qualitative thematic analysis of barriers, facilitators, and implementation suggestions.

Results: We included 9 patient/caregiver dyads (Patients: mean age 85 (±5.4), 33% were women, 33% minorities; Caregivers: 78% women, 22% minorities). Four themes emerged. (1) PREPARE-T2D meets unmet needs including understanding T2D, monitoring hypoglycemia, medication risks/side effects, and how to discuss with clinicians; (2) Barriers: Caregivers are not empowered to ask clinicians questions, are unsure of which clinician to ask, and lack understanding of ADRD-MCI; patients with ADRD-MCI reported difficulty understanding and remembering PREPARE-T2D without help from caregivers. (3) Facilitators: PREPARE-T2D videos and written action plans were brief and easy to understand for caregivers. (4) Implementation: Add reminders to schedule a provider visit to discuss deprescribing and view PREPARE-T2D 1 day before a visit; shorten PREPARE-T2D by removing repetition; mention action plans to talk with clinicians sooner in PREPARE-T2D; provide PREPARE-T2D in a range of formats (online, smartphones, written); consider shorter videos and/or written only information for patients with early ADRD-MCI without caregivers.

Conclusions: The PREPARE for Your Diabetes Care program meets unmet patient/caregiver needs in diabetes medication deprescribing for older adults and is easy to use for caregivers and caregiver/patient dyads. Refinements are required to add more information about ADRD-MCI, to provide multiple formats (online, written), and to simplify for patients with ADRD-MCI without caregivers.

Paper Session

COGNITIVE IMPAIRMENT AND DEMENTIA

Friday, May 10

12:15 pm – 1:15 pm

P20 Student Presentation

Frequency of Suboptimal Dementia Medication Prescriptions

J. Beck,² R. McIlvried.¹ 1. Geisinger Health, Danville, PA;

2. Geisinger Commonwealth School of Medicine, Scranton, PA.

Background

Dementia medications, acetylcholinesterase inhibitors and memantine, are often prescribed without the recommended dose escalation or at an incorrect frequency. Clinical trials have shown that the maximum benefit for these medications is at the standard maintenance dose. Lower doses have either been shown to have less benefit, no benefit, or have not been studied. Individuals taking these medications at lower doses may experience adverse effects without receiving any benefit. This study investigated the frequency of incorrect or suboptimal dosing regimens for dementia medications and examined trends according to the ordering provider’s specialty.

Methods

A retrospective study was conducted by reviewing data from all outpatient prescriptions for donepezil, rivastigmine, galantamine, memantine, and memantine/donepezil in Geisinger Health System between 2018 and 2023. Criteria for optimal maintenance doses were established based on drug package inserts and clinical trials.

Results

1,739 patients received incorrect maintenance doses of dementia medications, comprising 26.9% of all patients. Of a total of 27,752 prescriptions, 16.6% were prescribed at suboptimal doses. Most (64.9%) were written by primary care providers. The proportion of prescriptions written with nonoptimal doses differed according to the ordering provider’s specialty (neurology, primary care, psychiatry) ($\chi^2=811.18$; $df=4$; $p<.001$). Donepezil had the highest number suboptimal scripts (2,596). Rivastigmine had the highest rate of nonoptimal prescriptions at 27.5%.

Conclusions

Many patients receiving dementia medications (26.9%) are prescribed incorrect or suboptimal doses. Quality improvement measures including chart alerts on patients with long-term, nonoptimal dosing or feedback to providers with high frequencies of incorrect scripts may be warranted.

Prescriptions at non-optimal doses

Medication type and dosing error	Total no. prescriptions	No. Non-optimal prescriptions	% non-optimal prescriptions
Donepezil	16,424	2596	15.8
<10mg daily		2502	15.2
>10 (excluding 23 mg)		94	0.6
Rivastigmine	2241	617	27.5
Once daily		17	0.8
<6mg twice daily		434	19.4
Transdermal 4.6 mg		166	7.4
Galantamine	390	101	25.9
Short acting once daily		14	3.6
Short acting <4mg twice daily		50	12.8
Long acting <8mg daily		37	9.5
Memantine	8635	1278	14.8
Short acting once daily		223	2.6
Short acting <10mg twice daily*		866	10
Long acting <28mg daily		107	1.2
Not adjusted for renal impairment		82	0.9
Memantine/donepezil	62	4	6.5
<28/10mg daily*		4	6.5

*unless renally adjusted

P21 Student Presentation

Relationship between hip fracture and post-fracture cognitive impairment using the National Health and Aging Trends Study
 P. Singh, J. Poeran, D. A. Forsh, B. Stern. *Icahn School of Medicine at Mount Sinai, New York, NY.*

Background

Hip fractures impose high morbidity and mortality and are more common in those with dementia, but there is likely a complex relationship with cognition, such that a fracture may also precipitate cognitive decline. This study analyzed the association between hip fracture and new onset of post-fracture cognitive impairment using a national sample of older adults.

Methods

This retrospective cohort study included Medicare beneficiaries aged 65+ from the National Health and Aging Trends Study (NHATS). We used the NHATS dementia classification (normal, possible dementia, probable dementia). All hip fracture patients were living in the community or non-nursing home settings with pre-fracture normal cognition. Hip fractures were identified in Rounds 2012-2019 of the survey, and the cognitive outcome was extracted from the same round in which the participant reported a hip fracture in the past 12 months. Eligible controls were those not in the hip fracture group and who had normal cognition in Rounds 2011-2013 and a cognitive measure available for the outcome in Round 2014. The association between hip fracture and onset of possible/probable dementia was examined using unadjusted and adjusted survey-weighted logistic regression. For the adjusted analysis, we performed a propensity score analysis using inverse probability weighting. Study variables used were age, gender, education, race/ethnicity, Medicaid status, living arrangement, multimorbidity, frailty, and depression. We report odds ratios (ORs) with 95% confidence intervals (CI).

Results

Of the hip fracture patients (weighted n=906,112), 14.9% had possible/probable dementia compared to 5.8% of eligible controls (weighted n=18,590,032). The unadjusted odds of developing possible/probable dementia were increased for those who had a hip fracture versus controls (OR=2.8, CI 1.6-5.1, p=0.001). After adjusting for potential confounders, the association was attenuated but remained significant (OR=2.1, CI 1.1-4.2, p=0.03).

Conclusion

Sustaining a hip fracture was associated with increased likelihood of a transition from normal to possible/probable dementia in older adults. However, we cannot rule out pre-fracture cognitive decline that was undetected by the NHATS dementia classification. Understanding the relationship between hip fracture and post-fracture cognitive impairment can guide prevention and rehabilitation efforts.

P22

APOE Epsilon Variants and Composite Risk of Dementia, Disability and Death in the Health and Retirement Study
 S. Clocchiatti-Tuozzo,¹ N. Szejko,² C. Rivier,³ D. Renedo,³ S. Huo,³ K. Sheth,³ T. Gill,¹ G. J. Falcone.³ *1. Geriatrics, Yale University Department of Internal Medicine, New Haven, CT; 2. Warszawski Uniwersytet Medyczny Wydział Lekarski, Warszawa, Poland; 3. Yale School of Medicine, New Haven, CT.*

Background: In geriatric medicine, dementia, disability, and death are key patient-centered outcomes. Genetic variants, like the *APOE* epsilon (ϵ) alleles, can influence the efficacy of interventions in clinical trials targeting these outcomes. We tested the hypothesis that *APOE*- $\epsilon 4$ status is linked with an elevated risk, whereas *APOE*- $\epsilon 2$ status is linked with a reduced risk, of a composite outcome of dementia, disability, and death.

Methods: We evaluated clinical and genomic data from the Health and Retirement Study collected between 1992 and 2020. We used genetic data from the rs429358 and rs7412 variants to determine

APOE genotypes, modelled dominantly (carriers/non-carriers). We used survival analysis and multivariable Cox proportional hazards models with a composite endpoint of dementia, disability, and death. Our primary analysis evaluated persons with genetic data and no previous dementia or disability. In secondary analyses, we focused on persons without a history of heart disease or stroke, who start contributing time at 75 years, a population subgroup increasingly important in clinical trials of older adults.

Results: We included 14,981 participants in the primary analysis. Over a mean follow-up time of 22 (SD 9.1) years, 7,318 (49%) persons developed the composite outcome. In multivariable Cox regressions, *APOE*- $\epsilon 4$ was associated with a higher risk (HR 1.12, 95%CI 1.07-1.18) of the composite outcome while *APOE*- $\epsilon 2$ was associated with a lower risk (HR 0.93, 95%CI 0.86-0.99). In the secondary analysis, 4,661 persons were included. Over a mean follow-up time of 17 (SD 8.7) years, 2,710 persons (58%) developed the composite outcome. In multivariable Cox analyses, *APOE*- $\epsilon 4$ was associated with a higher risk (HR 1.16, 95%CI 1.06-1.26) of the composite outcome, while *APOE*- $\epsilon 2$ was associated with a non-significant lower risk (HR 0.92, 95%CI 0.82-1.03).

Conclusions: *APOE*- ϵ variants are linked to the risk of dementia, disability, and death in older adults. By examining these variants in clinical trials, we can better elucidate how they might alter the effectiveness of tested interventions. Importantly, this genetic information may guide us in selecting participants more likely to benefit from interventions.

P23

Lower Urinary Tract Symptoms and Cognitive Impairment among Participants of the REasons for Geographic and Racial Differences in Stroke (REGARDS) Cohort Study

B. Williams,¹ S. Elgayar,¹ Y. Zhang,³ K. L. Burgio,³ R. Kennedy,³ V. J. Howard,³ M. Crowe,³ A. D. Markland.^{1,2} *1. Geriatric Medicine, The University of Alabama at Birmingham, Birmingham, AL; 2. Birmingham/Atlanta GRECC, Birmingham, AL; 3. The University of Alabama at Birmingham, Birmingham, AL.*

Background: Little is known about the association of cognitive impairment in older adults with lower urinary tract symptoms (LUTS). To address this gap, we examined the association of cognitive impairment in older adults with and without LUTS in the REGARDS study.

Methods: REGARDS is a national, longitudinal cohort of 30,239 Black and White adults aged 45+ years, who were assessed for vascular risk factors initially in 2003-2007 and again in 2013-2016. We analyzed data from a subsample of 6062 women and 4438 men who answered validated LUTS questionnaires (ICIQ-Female-LUTS and Male-LUTS; range 0-28) in 2019-2020. We dichotomized LUTS as none/very mild (0-3) or mild/moderate/severe (4-28). Cognitive impairment was assessed using validated telephone assessments from the Six-Item Screener (SIS) and MoCA for global cognitive domains, as well as Animal Naming, Letter F naming, word list learning, and delayed recall for specific cognitive domains. Lower scores represent more cognitive impairment. We performed multivariable linear regression models (beta coefficients and 95% confidence intervals) adjusting for sociodemographic variables (age, race, education, income and urban/rural setting) for participants with LUTS versus those without.

Results: Overall, 70% of women reported LUTS (mean age 69.4±7.8 years, 41% Black, 59% White) and 62% of men reported LUTS (mean age 62.8±7.3 years, 32% Black, 68% White). From the SIS (score ≤4), 6.2% (n=260) of women and 8.2% (n=225) of men had cognitive impairment. Participants who reported LUTS had lower cognitive scores for all the specific (p<0.01), but not global cognitive domain tests (Table).

Conclusions: Participants with LUTS had consistently lower scores on all specific cognitive domains. Recognizing subtle changes in cognition among older adults with LUTS may impact treatment decisions. Future work should analyze longitudinal changes in cognition and LUTS.

Cognitive Domains and Scores for REGARDS Participants with LUTS

	Beta Coefficient for Participants with LUTS	95% Confidence Interval	p-Value
Six-item Screener, range 0-6	0.08	0.05, 0.12	<0.001
Modified Montreal Cognitive Assessment (MoCA), range 0-11	0.06	0.00, 0.12	0.070
Animal Naming, range 0-42	-0.27	-0.47, -0.08	0.006
Letter F naming, range 0-31	-0.28	-0.45, -0.11	0.002
Word list learning, range 0-30	-0.31	-0.50, -0.13	0.001
Delayed recall scores, range 0-10	-0.11	-0.19, -0.04	0.004

**Paper Session
CLIN-STAR**

**Friday, May 10
2:45 pm – 3:45 pm**

P24

A role for intraoperative hypotension in postoperative blood-brain barrier dysfunction in older non-cardiac surgery patients.
M. J. Devinney,^{4,1} M. Wong,⁴ M. Wright,⁴ E. Marcantonio,² N. Terrando,⁴ H. Whitson,^{1,3} H. Cohen,^{1,3} M. Berger.^{4,1} *1. Center for the Study of Aging, Duke University, Durham, NC; 2. Division of General Medicine and Gerontology, Department of Medicine, Beth Israel Deaconess Medical Center, Boston, MA; 3. Division of Geriatric Medicine, Department of Medicine, Duke University School of Medicine, Durham, NC; 4. Department of Anesthesiology, Duke University School of Medicine, Durham, NC.*

Introduction: We previously demonstrated that 24-hour postoperative increases in blood-brain barrier (BBB) permeability are independently associated with greater postoperative delirium risk. However, it is unclear what factors lead to increased postoperative BBB dysfunction. Because hypotension can disrupt the tight junctions between endothelial cells essential to BBB function, we hypothesized that intraoperative hypotension is correlated with increased postoperative BBB dysfunction.

Methods: As part of the IRB-approved INTUIT (NCT03273335) and ACTIVATE (NCT01993836) studies, 207 age >60 non-cardiac, non-neurologic surgery patients underwent pre- and postoperative cerebrospinal fluid (CSF) and blood sampling. CSF and plasma albumin levels were measured with immuno-turbidimetry and bromocresol purple dye-binding, respectively, at baseline and 24 hours postoperatively. BBB dysfunction was assessed by the ratio of CSF to plasma albumin (CPAR). The duration of intraoperative hypotension (mean arterial pressure <65 mm Hg) was examined in 44 patients with arterial lines.

Results: We found that hypotension duration was correlated with increased pre- to 24-hour changes in CPAR (Spearman $\rho=0.31$; 95% CI 0.02, 0.56; $p=0.035$). Between patients with >25th percentile and ≤ 75 th percentile pre- to 24-hour postoperative CPAR change, there was no difference in average intraoperative phenylephrine dose (Wilcoxon $p=0.267$) or the use of other vasopressors (chi-squared $p=0.155$).

Conclusion: Intraoperative hypotension is correlated with increased postoperative blood-brain barrier dysfunction in older surgical patients. Multivariable analyses, accounting for other perioperative factors, to determine if intraoperative hypotension is independently associated with postoperative BBB dysfunction could inform interventions for preventing postoperative BBB dysfunction.

P25

Association between Social Determinants of Health and Delivery of Post-Acute Rehabilitation to Older Survivors of Critical Illness
S. Jain,¹ T. E. Murphy,² J. R. O’Leary,¹ L. Leo-Summers,¹ J. R. Falvey,³ L. Ferrante.¹ *1. Yale University School of Medicine, New Haven, CT; 2. The Pennsylvania State University, University Park, PA; 3. University of Maryland Medical Center, Baltimore, MD.*

Background: Older adults with socioeconomic disadvantage develop greater disability following hospitalization with a stay in the intensive care unit (ICU) than their less vulnerable counterparts. Whether delivery of rehabilitation among those referred for post-acute care differs by social determinants is unknown.

Methods: We identified community-dwelling older adults in the National Health and Aging Trends Study (NHATS) and linked Medicare data to identify ICU hospitalizations with discharges to skilled nursing facilities (SNFs) or home health (HH). We calculated the rate of therapy delivered in the first 100 days after discharge as the total minutes of physical and occupational therapy (PT/OT) divided by number of eligible days (days in facility for SNF; days alive and at home for HH). We constructed Poisson regression models to evaluate the association between rate of therapy and social determinants including 1) dual-eligibility for Medicare and Medicaid, 2) race, 3) education, 4) limited English proficiency (LEP), and 5) rural residence; adjusting for age, sex, mechanical ventilation and organ dysfunction during ICU hospitalization, and disability and cognitive function at initial assessment in the Minimum Data Set and the Outcome and Assessment Information Set.

Results: Of 1,618 ICU hospitalizations, 295 were discharged to SNFs and 231 to home with home health. The median length of stay at SNFs was 27 days (IQR: 15, 54) and a median of 74.9 minutes of therapy/day (IQR: 62.3, 100.1) was delivered. Among participants discharged to home health, the median number of days alive and at home was 99 (IQR: 89, 100) and a median of 2.25 minutes of therapy/day (IQR: 0, 5.4) were delivered. Social determinants were not significantly associated with the rate of therapy in either setting in unadjusted or multivariable analyses.

Conclusion: In this nationally representative cohort study, older ICU survivors discharged to post-acute rehabilitation received modest amounts of physical and occupational therapy in SNF and HH settings in the first 100 days after discharge. The delivery of rehabilitation to those referred for post-acute care did not differ by social determinants.

P26

Prevalence of Unrecognized MCI and Dementia in Urban Federally Qualified Primary Care Clinics.

A. Kulshreshtha,¹ E. Parker,² A. Owora,² N. Fowler,² M. Boustani.² *1. Emory University, Atlanta, GA; 2. Indiana University, Bloomington, IN.*

Background: With two recent breakthroughs in cognitive care, the FDA approval of disease modifying treatment, and the Centers for Medicare and Medicaid services approval of an alternative payment model for comprehensive dementia care model, there is an ongoing need for equitable early detection of Mild Cognitive Impairment (MCI) and Dementia in Federally Qualified Health Centers (FQHC).

Methods: We conducted a cross-sectional study that enrolled 204 patients aged 65 and older served by FQHC affiliated safety net healthcare system in Indianapolis Indiana who had no documentation of the presence of cognitive impairment. All subjects underwent a comprehensive cognitive assessment that included completion of structured patient and care partner interviews, medical record reviews, neurological examinations, and neuropsychological testing. The diagnoses of normal cognition, MCI, or dementia was defined from a combination of “gold standard” which used clinician diagnoses along with a medical record review in a consensus conference and the result of the Clinical Dementia Rating global staging. Chi-squared and ANOVA tests were used for statistical comparisons.

Results: We had a total of 204 patients enrolled in the study that underwent cognitive evaluation (“gold standard” and CDR combo vs CDR alone). Average age of the sample was 70 years, 62% female, 53% African American, mean years of education was 13 years, and mean area deprivation index score of 78.7/100 (indicating higher level of neighborhood disadvantage). Cardiovascular risk factors and conditions were highly prevalent in the group including 52% with diabetes, 93% hypertension, 23% heart disease, and 10% with a history of cerebrovascular disease. Mean MOCA score was 21.8, FAQ was 3.8, and mean NPI-Q score of 3.8/40 indicating lower level of psychiatric symptoms. Approximately, 62% of patients had MCI, 12% had dementia, and 25% had no cognitive problems. African Americans were more likely to be classified with MCI or mild-moderate dementia.

Conclusions: Under detection of MCI and dementia is high in FQHC especially among African Americans.

P27

Ambulatory care fragmentation after emergency department visits among older adults

C. Gettel, Y. Song, C. Rothenberg, C. Kitchen, Y. Liang, A. Venkatesh. *Emergency Medicine, Yale University School of Medicine, New Haven, CT.*

Objectives: Prior work suggests that highly fragmented ambulatory care leads to subsequent emergency department (ED) visits, yet the reverse relationship addressing ED-to-community care transitions has not been explored. We sought to characterize fragmentation experienced in the ambulatory care setting by older adults after receiving emergency care.

Methods: We performed a retrospective cohort study of ED visits by patients aged 65 years and older using the 2015-2019 Medicare Current Beneficiary Survey, a continuous survey of Medicare beneficiaries that links to healthcare utilization claims data. As our primary outcome, fragmentation was described by the number of follow-up ambulatory care visits as well as the number of unique providers within 7 and 30 days after the ED visit. We quantified fragmentation scores after each ED visit using the reverse Bice-Boxerman Index (rBBI), capturing the spread and relative share of ambulatory care visits across providers, with higher scores reflecting more fragmentation on a scale of 0 to 1. We estimated a quasi-binomial regression model for rBBI within 30 days of an ED visit, controlling for key beneficiary characteristics.

Results: Among a sample of 52,129 ED visits by older adults, 21.1% obtained ambulatory care follow-up within 7 days; of those with at least one follow-up visit, older adults had a median (IQR, min., max.) of 1 (1-1, 1, 5) ambulatory care visits within 7 days of an ED visit. Within 30 days of an ED visit, 40.6% of older adults obtained ambulatory care follow-up; of those with at least one follow-up visit, older adults had a median (IQR, min., max.) of 2 (1-3, 1, 22) ambulatory care visits within 30 days of an ED visit. The mean rBBI for 7 days and 30 days after an ED visit respectively were 0.788 and 0.746, reflecting fragmented care in the time period following emergency care. Having at least 2 chronic conditions (OR, 1.22; 95% CI, 1.11-1.33) and non-White race (OR, 1.22; 95% CI, 1.07-1.38) were associated with increased ambulatory care setting fragmentation within 30 days of an ED visit.

Conclusions: After emergency care, older adults experience limited ambulatory care access and a high degree of fragmented care. These findings highlight a potential increased need for coordination among ambulatory care providers as older adults navigate ED-to-community care transitions.

Paper Session ENSURING SHARED DECISION MAKING WITH OLDER ADULTS

Saturday, May 11

10:00 am – 11:00 am

P28 Student Presentation

Amplifying Patient Wishes through Scribe Outreach in Advance Care Planning

A. Prasad,¹ C. Chen,¹ A. Li,¹ S. Kavitha Suresh,¹ M. Sheffrin,¹ V. Periyakoil,¹ S. Tee.² *1. Stanford University School of Medicine, Stanford, CA; 2. Stanford University, Stanford, CA.*

Introduction: Advance care planning (ACP) documentation informs healthcare teams of patients’ wishes and preferences for medical care. As of November 2022, one-third of patients in our outpatient geriatrics clinic did not have an uploaded Advance Directive (AD) in the Electronic Medical Record. Of those, one-third were Limited English Proficient (LEP) patients. We aimed to determine if 1) AD upload would be improved by having trained scribes perform scheduled patient outreach, and 2) compare AD upload rates between English-speaking and LEP patients.

Methods: Clinic patients who did not have any uploaded AD forms were mailed AD forms in prepaid return envelopes. Patients were randomized to the control arm or scribe-intervention arm. In the control arm, patients only received the mailed AD. In the scribe-intervention arm, four scribes followed up with patients up to five times in two-week intervals. Scribes had a robust training program on ACP, including online training modules, peer practice, and standardized patient practice. During outreach, they scheduled phone ACP discussions and assisted patients in uploading AD to the medical record.

Results: The intervention was completed over 4.5 months, Dec 2022 to April 2023, and included 135 patients of two geriatricians who were randomized (control arm=69, scribe-intervention arm=66). Overall, 34% (23 of 66) of patients in the scribe-intervention arm uploaded their AD, compared to 14% (10/69) in the control arm, which was statistically significant (p<0.05). Among LEP patients, 39% (11/28) in the intervention arm uploaded AD, compared to only 7% (2/28) in the control arm. Among English-speaking patients, 32% (12/38) in the intervention arm uploaded their AD, compared to 21% (8/39) in the control arm.

Conclusion: We observed a large and statistically significant increase in AD upload rate when trained scribes conducted outreach to help with AD completion and upload. There was also a significant increase in AD completion in LEP patients who had scribe outreach compared to usual care. This model of trained scribed outreach for ACP can be used in other clinics to promote AD completion and documentation, particularly for LEP patients who may benefit from extra outreach.

P29

User-Centered Development of a Portal Based Advance Care Planning tool for Persons Living with Cognitive Impairment and their Care Partners: Usability Testing Study

J. Gabbard,¹ A. M. Chandler,² N. M. Pajewski,² K. Callahan,³ K. L. Foley,⁴ A. Moses,⁵ E. Sutfin,² E. Kirkendall,⁵ E. Lawrence,¹ J. D. Williamson.¹ *1. Internal Medicine-Gerontology and Geriatric Medicine, Wake Forest University School of Medicine, Winston-Salem, NC; 2. Department of Social Sciences and Health Policy, Division of Public Health Sciences, Wake Forest University School of Medicine, Winston-Salem, NC; 3. Wake Forest University School of Medicine, Winston-Salem, NC; 4. Department of Implementation Science, Division of Public Health Sciences, Wake Forest University School of Medicine, Winston-Salem, NC; 5. Center for Healthcare Innovation, Atrium Health Wake Forest Baptist, Winston-Salem, NC.*

Background: Digital ACP interventions have many potential advantages, but few have been specifically designed for or rigorously evaluated in persons living with cognitive impairment (PLCI). The goal of this study was to conduct usability testing of a portal-based Advance Care Planning Tool (ACPVoice) using a user-centered design approach among community-dwelling PLCI and their care partners.

Methods: This was a mixed-method user centered design with quantitative (pre/post) intervention surveys with semi-structured usability interviews following a Think-Aloud Protocol. A deductive, thematic analysis approach, framed by the Technology Acceptance Model and the Task-Technology Fit Model was used to analyze qualitative data. Three rounds of usability testing were conducted. Rapid qualitative analysis was used to identify key areas of changes needed and ACPVoice tool was adapted after each round. The System Usability Scale (SUS) was used to rate usability.

Results: Thirty participants were enrolled from May 2022 to September 2023. The mean age for PLCI was 79.3 (SD 8.6), 53.3% were female, 13.3% were Hispanic, and 26.7% were African-American. The mean age of care partners was 66.2 (SD 13.5), 66.7% were female, 6.7% were Hispanic and 26.7% were African-American. The final mean SUS score was 82.8 (SD 18.8), which equates to excellent usability and 85.7% rated the tool easy to use. Revisions were made to the number of questions, question stems/answers, and to the portal message to improve navigational ease as well as question comprehension and response.

Conclusion: Overall, participants were receptive to the ACPVoice tool and found the tool easy to use. Further studies are currently underway to examine the intervention's feasibility and acceptability at improving ACP among PLCI.

P30

Geriatric Considerations in Treatment Conversations with Older Adults with Low-Risk Breast Cancer

C. A. Minami,³ A. Revette,¹ B. Nava-Coulter,¹ M. Schonberg.² *1. Dana Farber Cancer Institute, Boston, MA; 2. Beth Israel Deaconess Medical Center, Boston, MA; 3. Brigham and Women's Hospital, Boston, MA.*

INTRODUCTION

Women ≥ 70 years with low-risk (early-stage, hormone receptor-positive (HR+)) breast cancer face multiple, nuanced surgical and adjuvant therapy decisions. Geriatric considerations, such as life expectancy, should also be integrated into treatment decision-making. The objective of this study was to determine how geriatric considerations are integrated into treatment conversations in this population.

METHODS

Women ≥ 70 with clinical T1-2N0 HR+ disease presenting for an initial consultation were recruited between 10/2020-3/2023 at a large academic cancer center. Their consults with their surgical, medical, and radiation oncologists were audio-recorded and transcribed. Pre-consult questionnaires were used to assess baseline demographics,

frailty (Geriatric-8), life expectancy (Schonberg Index), decision-making preferences (Control Preferences Scale (CPS)), and preferences regarding health care use (Medical Maximizer-Minimizer Scale). Transcriptions were coded for conversational content and dynamics, applying both deductive codes from the domains of the comprehensive geriatric assessment, and inductive codes that emerged from the data. After iterative coding, themes regarding conversational content and dynamics were identified.

RESULTS

Of 48 eligible patients approached, 29 (66%) participated, resulting in 44 audio-recorded treatment consults; 25 were with surgical oncologists (n=8), 16 with medical oncologists (n=9), and 3 with radiation oncologists (n=3). Overall, 14 (48%) were ≥ 75 years, 23 patients were Non-Hispanic White (76%), 7 were Black (24%), 9 (31%) had < 10 -year life expectancy, 12 (41%) were at risk for frailty, and 20 (69%) were medical maximizers. Per the CPS, patients preferred to share (n=15, 58%) or make their own decisions about treatment (n=10, 39%). Despite this, only 8 (19%) of conversations contained an explicit treatment choice presented by oncologists. Chronologic age was discussed in 90% of conversations, while at least one geriatric consideration was discussed in 30 (68%) of conversations (physiologic age: 39%; functional status: 41%; quality of life: 21%; life expectancy: 9%).

CONCLUSION

Future interventions focused on improving shared decision making and integration of geriatric considerations into treatment conversations are needed.

P31

Impact of Goal-Directed Care in Patients with Functional Disabilities: A Quality Improvement Outcome Study

C. Blau,¹ X. Zhou,² D. Lawton,² H. Resnick,⁴ E. Giovannetti,³ S. Scholle.⁵ *1. Performance Measurement, National Committee for Quality Assurance, Washington, DC; 2. Research & Analysis, National Committee for Quality Assurance, Washington, DC; 3. Clinical Care Transformation Data and Evaluation, MedStar Health, Columbia, MD; 4. Resnick, Chodorow and Associates, Silver Spring, MD; 5. Leavitt Partners, Salt Lake City, UT.*

Background: Goal-directed care based on a patient's preferences is an essential element of person-centered care delivery for patients with multimorbidity. The objective of this study was to determine if a goal-directed care intervention improved patient-reported outcomes (PROs) or reduced utilization among adults with multimorbidity.

Methods: The study was a non-randomized controlled quality improvement intervention. Three community-based care management programs, one geriatric primary care practice, and matched control programs provided claims and survey results. Participants were 857 patients (384 intervention, 473 control) with 2 or more mental or physical conditions and impairments in either activities of daily living or instrumental activities of daily living. The intervention designed to increase goal-directed care (identifying and documenting a goal and care plan and measuring goal progress) was implemented in the intervention group with comparison patients receiving standard care. Outcomes included care experiences and well-being assessed by surveys as well as hospitalization and emergency department visits assessed using claims 6 months pre/post intervention.

Results: The survey was available for 392 patients (160 intervention, 232 comparison); claims were available for 778 (319 intervention, 459 comparison). Mean scores for care planning (74 vs. 67, $p=0.06$) and patient activation (84 vs. 75, $p=0.01$) were significantly higher in the intervention vs. control arm. Claims-based analysis of hospitalization and emergency department use showed a significant decrease (multi-level model, interaction effect = 0.45, $p<0.001$) in hospital admissions for the intervention arm pre/post (38% vs. 23%) compared to the comparison group (33% vs. 34%) with a

non-significant decrease in emergency department visits pre/post (Intervention: 43% vs. 39%; Comparison: 56% vs. 58%).

Conclusions: Implementation of goal-directed care planning improved some outcomes and reduced hospital admissions in complex patients with functional disabilities. This approach warrants further investigation and replication.

Paper Session
THE AGING HEART: TAKING CARE OF THE WHOLE PERSON

Saturday, May 11
1:00 pm – 2:00 pm

P32
Preoperative frailty, Operative Stress and Cardiac Complications After Non-Cardiac Surgery.

C. Park,¹ J. Lie,² D. Kim.¹ 1. *Hebrew SeniorLife, Boston, MA;* 2. *The University of British Columbia, Vancouver, BC, Canada.*

BACKGROUND

Postoperative cardiac complications are a significant source of morbidity and mortality among older adults undergoing surgical procedures. This study investigates the association of operative stress and preoperative frailty with postoperative cardiac complications.

METHODS

Using 5% random sample of Medicare fee-for-service beneficiaries who underwent surgical procedures, we created 3 cohorts based on the absence of atrial fibrillation (Afib), heart failure (HF), and myocardial infarction (MI) at the time of the surgery. Exposures were Operative Stress Score (OSS; range:1 [e.g., arthroscopy] to 5 [e.g., pneumonectomy]) and frailty (range: 0 to 1; non-frail <0.15, pre-frail 0.15-0.24, frail ≥0.25) using claims-based frailty index. For each cardiac outcome of interest, the analysis was conducted within the cohort that was initially free of the specific outcome. Adjusted risk ratio (RR) for experiencing postoperative Afib, MI, and HF by frailty category was estimated within each OSS category.

RESULTS

Three cohorts were identified based on the absence of Afib (n=82,923; mean age [SD], 75 [7.0]; female, 53%; white, 88%), MI (n=493,013; age, 74 [6.5]; female, 58%; white, 88%), and HF (n=739,091; age, 74.8 [6.7]; female, 54%; white 87%) at baseline. On average, the distribution of OSS categories (1 to 4-5) for three cohorts is approximately 20%, 48%, 28%, and 3%, respectively. Patients with frailty who underwent low to moderate stress procedures had higher risk of postoperative Afib, MI, HF (adjusted RR [95% CI], Afib: 3.4 [2.8-4.0], MI:5.8 [4.4-7.5], and HF: 4.5 [3.6-5.7]) compared to robust patients (Table 1). For high stress procedures, patients with frailty had higher risk of postoperative MI and HF, but not Afib, which was statistically not significant.

CONCLUSION

This study advocates for meticulous cardiac screening in frail older patients undergoing surgery, recognizing frailty as a critical, and independent risk factor for postoperative cardiac complications irrespective of operative stress level.

Table: Cardiac Complications After Non-Cardiac Surgery and Procedures by Operative Stress and Frailty

Operative Stress Level	Frailty Level	Atrial Fibrillation (n=82,923)			Myocardial Infarction (n=493,013)			Heart Failure (n=739,091)		
		Total (n, %)	Risk Ratio ¹	Ref	Total (n, %)	Risk Ratio ²	Ref	Total (n, %)	Risk Ratio ³	Ref
1 (Very low stress)	Robust	70,104	174, 0.3	Ref	54,223	71, 0.1	Ref	69,599	90, 0.1	Ref
	Pre-frail	78,697	542, 0.7	1.9 (1.6-2.3)	38,918	294, 0.7	2.7 (2.0-3.6)	69,599	322, 0.5	2.3 (1.8-3.0)
2	Robust	19,918	291, 1.5	2.3 (1.8-2.9)	5,199	140, 2.7	4.3 (3.0-5.9)	11,147	110, 1.0	3.0 (2.2-4.1)
	Pre-frail	174,327	258, 0.2	Ref	140,050	105, 0.1	Ref	174,084	152, 0.1	Ref
3	Robust	183,341	933, 0.5	2.2 (1.9-2.6)	95,881	463, 0.9	3.3 (2.6-4.1)	165,538	693, 0.4	2.5 (2.1-3.1)
	Pre-frail	42,434	586, 1.4	3.4 (2.8-4.0)	11,573	247, 2.1	5.8 (4.4-7.5)	24,079	263, 1.1	4.5 (3.6-5.7)
4-5 (Very high stress)	Robust	66,350	371, 0.6	Ref	53,988	148, 0.3	Ref	65,483	180, 0.3	Ref
	Pre-frail	128,810	1798, 1.4	1.7 (1.5-1.9)	67,692	768, 1.1	2.2 (1.8-2.6)	112,196	980, 0.9	2.0 (1.7-2.3)
4-5 (Very high stress)	Robust	40,908	1061, 2.6	2.0 (1.8-2.3)	12,369	351, 2.8	2.7 (2.2-3.3)	25,216	418, 1.7	2.4 (1.9-2.9)
	Pre-frail	7,248	576, 2.2	Ref	5,487	45, 0.8	Ref	7,115	58, 0.8	Ref
4-5 (Very high stress)	Robust	12,627	491, 3.6	1.3 (1.0-1.5)	5,949	128, 2.0	1.5 (1.0-2.1)	10,851	223, 1.9	1.6 (1.2-2.2)
	Pre-frail	4,167	185, 4.2	1.2 (0.9-1.5)	1,117	51, 4.3	1.8 (1.1-2.8)	2,377	78, 3.1	1.8 (1.2-2.6)

^{1,2,3} Adjusted for age, sex, race, elective/emergent, cardiometabolic disease, smoking and obesity.

P33 Student Presentation, Encore Presentation
Regulation of Cardiomyocyte Senescence by α1A Adrenergic Receptors

N. Rice,¹ B. Jensen.^{2,3} 1. *The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC;* 2. *Medicine, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC;* 3. *Pharmacology, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC.*

Background: Cellular senescence is a critical feature of cardiac aging and develops in an accelerated fashion in heart failure (HF). Regulation of cardiac senescence is understudied and poorly understood. Activation of α1A-adrenergic receptors (α1A-ARs) may protect against the development of HF, and mice overexpressing these receptors have longer lifespans. No prior studies have examined whether α1A-ARs regulate cardiomyocyte senescence. We aimed to determine if genetic loss of α1A-ARs contributes to cardiomyocyte senescence.

Methods: RNA was isolated from the hearts of young and old wild type (WT) and α1A-AR knockout (AKO) mice. Senescence and senescence-associated secretory phenotype (SASP) factor gene expression was analyzed via quantitative reverse transcriptase PCR (qRT-PCR).

Results: Old AKO mice exhibited a 1.5-fold increase in mRNA expression of senescence genes compared to old WT mice (p<0.01). *CDKN2A*, which codes for the tumor suppressor protein p16 and is a well-studied senescence marker, was upregulated 20-fold in the old AKO group (p<0.05). Old AKO mice demonstrated a 50-fold increase of SASP factor mRNA expression compared to old WT counterparts (p<0.05). Significant differences in senescence and SASP factor mRNA expression were not seen between young WT and young AKO mice.

Conclusion: Our results suggest α1A-ARs might play a role in cardiomyocyte senescence, predominantly in older mice. Further investigation is warranted to confirm these findings and to better understand the putative role of α1A-ARs in regulating cardiomyocyte senescence, an important problem for which there are no extant treatments. Such work could lead to the development of novel targeted therapies to prevent or delay aging-associated diseases in the heart.

P34
Association of Egg Consumption with Mortality: Results of a 48-year Follow-up

D. Kritiz-Silverstein. *School of Public Health, University of California San Diego, La Jolla, CA.*

Background: The association of egg consumption with mortality remains controversial. This study examines the association of egg consumption with risk of all-cause, cardiovascular disease (CVD) and coronary heart disease (CHD) mortality in a community-dwelling cohort followed for 48 years.

Methods: Participants were 2943 men and 3382 women (N=6325) from the Rancho Bernardo cohort who were initially enrolled in 1972-74 when egg consumption and demographic information was obtained, and glucose, total cholesterol, triglycerides, and blood pressures were measured. These individuals were followed through 2021 via mailed surveys, follow-up visits, and death certificates. Causes of death were coded by a nosologist using the ICD-9; codes 401-414, 426-438, and 440-448 were categorized as CVD deaths, and codes 410-414 were categorized as CHD deaths. Cox proportional hazard models were used to examine associations of egg consumption with risks of all cause, CVD and CHD mortality after adjustment for covariates, and after stratification by sex, and by 10-year age categories.

Results: Average egg consumption/week was 3.6±3.0; men consumed more eggs than women (p<0.0001) and had higher BMI, glucose, cholesterol, triglycerides, and blood pressure (p's<0.0001). During follow-up, there were 4474 deaths, of which 1807 were from CVD and 982 from CHD. Unadjusted comparisons showed there

were no differences in all-cause, CVD, or CHD mortality by categorical (0, 1, 2, 3, 4, 5, 6, ≥7) egg consumption, p-trends=0.51, 0.43, 0.71, respectively). Cox models adjusted for age showed egg intake was associated with a small increased risk for all-cause mortality (HR=1.013, CI:1.002-1.023). However, this was no longer significant after further adjustment for sex, education, BMI, ever smoked, glucose and total cholesterol (aHR=1.001, CI:0.990-1.012). Egg consumption was not associated with risk of CVD (aHR=0.995, CI:0.978-1.012) or CHD (aHR=0.997, CI:0.977-1.020) mortality. Likewise, there were no associations of egg consumption with all-cause, CVD or CHD mortality after stratification by sex, and stratification by 10-year age categories.

Conclusions: Results of this study which followed a community dwelling cohort for up to 48 years are reassuring and suggest that egg consumption is not associated with all-cause, CVD, and CHD mortality. Furthermore, there are no associations of egg consumption within either sex, or across the lifespan.

P35 Student Presentation

Patient Perspectives of Mobile Health Cardiac Rehabilitation Among Older Adults

K. Borrello,¹ C. Johaneck,² L. A. Jennings,³ S. Adhikari,² J. Whiteson,² A. Pierre,² B. George,² L. Kovell,² G. Sweeney,² A. Schoenthaler,² P. Placido,² J. Dodson.² *1. John A. Burns School of Medicine, University of Hawai'i System, Honolulu, HI; 2. NYU Langone Health, New York, NY; 3. The University of Oklahoma College of Medicine, Oklahoma City, OK.*

Background

The usability of digital health application use by older adults has not been well documented. We used qualitative analysis to characterize patient perspectives on mobile health cardiac rehabilitation (mHealth-CR) using data from the RESILIENT study, a randomized trial of mHealth-CR vs. usual care.

Methods

At a 3-month follow-up survey, intervention arm patients were asked to provide open-ended feedback about their experience with mHealth-CR. Feedback responses were transcribed verbatim, then independently coded and categorized into emerging themes by two investigators. To ensure consistency between coders, meetings were held to resolve any discrepancies by consensus.

Results

Of 142 patients who completed the survey, 76 (54%) provided comments for qualitative analysis. The mean age of participants was 70.6 years old, 22% were female, and 25% were non-White. Seven major themes emerged (Table): 1) Patients enjoyed phone calls from their physical therapists, and reported feeling supported and held accountable by the program, 2) Patients learned valuable information about health, fitness, and the use of technology, 3) Patients felt the program helped them with motivation and goal setting, 4) Patients found the system to be confusing and not user-friendly, 5) Patients reported wanting more instructions on exercise regimens and more training with technology, 6) Patients who were not competent with technology found the program to be difficult, and 7) Patients compared the mHealth-CR intervention to in-person cardiac rehabilitation.

Conclusion

Patients reported positive experiences with mHealth-CR although there were technical challenges that served as barriers to optimal implementation. Future mHealth-CR products that specifically address current limitations may enhance usability.

Theme	Patient perspective
1) Patients enjoyed the phone calls from their physical therapists, and reported feeling supported and held accountable by the program (n=36)	"I loved the Fitbit and its accountability and the app accountability to take my blood pressures... I would do the program again if asked."
2) Patients learned valuable information about health, fitness, and the use of technology (n=17)	"I thought it was a great starting point for an ageable person to go to work and to learn how to do exercise and how to just do the work even if for 15 minutes. Now with the training of this program, I feel like I can use other technology that I haven't used before."
3) Patients felt the program helped them with motivation and goal setting (n=21)	"Enhanced motivation for me to consciously stick with what my program was... It was helpful."
4) Patients found the system to be confusing and not user-friendly (n=30)	"If the system worked the way it was supposed to it would be a lot better/easier... It needs a better program and needs to be more user friendly. There were a lot of issues with syncing and logging in. Basic things were not working and the software itself was very primitive."
5) Patients reported wanting more instructions on exercise regimens and more training with technology (n=19)	"I would like more guidance on how many exercises to do, not just how many reps of the one exercise. I wanted more of a workout plan... The videos were good but a program to tell you the order to listen to them would be helpful." "Not enough training with Fitbit...Want better instructions"
6) Patients who were not competent with technology found the program to be difficult (n=17)	"I had problems with the technology... I don't think everybody could do this, some older people never had this experience and are not inclined at a certain age."
7) Patients compared the mHealth-CR intervention to in-person cardiac rehabilitation (n=8)	"The program is really good. I think the technology is good. But, I like going to in-person physical therapy. I like the resistance bands and feel like I can remember the moves in the future." "I did like being able to stay home and not worried about getting to therapy in person"

Paper Session

HEALTH SERVICES & POLICY RESEARCH

Saturday, May 11

2:15 pm – 3:15 pm

P36

Frailty and Time at Home after Post-Acute Care in Skilled Nursing Facilities

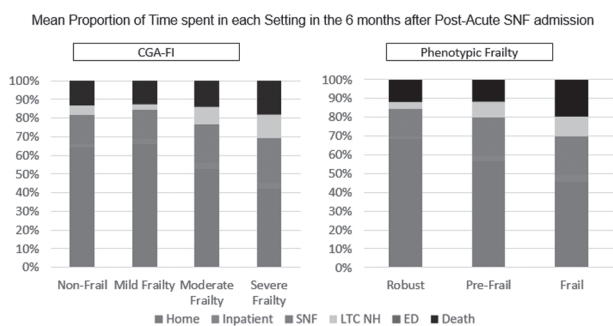
S. Shi,¹ G. Oh,¹ J. Bean,² E. Mccarthy,¹ D. H. Kim.¹ *1. Hebrew SeniorLife, Boston, MA; 2. Veterans Health Administration, Washington, DC.*

Background: One in five older adults receive post-acute care in a skilled nursing facility (SNF) after hospitalization. Many have underlying frailty. However, the impact of pre-existing frailty on post-acute care outcomes is not established.

Methods: We leveraged the National Health in Aging Trends Study (NHATS) to examine fee-for-service (FFS) Medicare Beneficiaries who had a post-acute SNF stay within 6 months of their NHATS survey assessment. Using survey assessments, we calculated a deficit accumulation frailty index (CGA-FI), and phenotypic frailty. Our primary outcome was Time at Home, defined as days alive out of hospital (Inpatient), emergency department (ED), SNF, or long-term nursing home (LTC NH) in the 6 months (183 days) following SNF admission. All analyses accounted for the complex sampling design and were weighted to reflect national estimates.

Results: Over 7 years of follow-up, 643 had a post-acute SNF stay within 6 months of their survey (64.3% were age ≥ 80, 60.6% female, and 84.0% White). By CGA-FI, 120 (19.7%) were non-frail, 121 (22.0%) had mild frailty, 125 (18.2%) had moderate frailty, and 273 (39.8%) had severe frailty, with a mean Time at Home 114.0 days (standard deviation [SD] 64.5), 117.2 days (59.6), 93.6 days (67.0) and 74.7 days (71.0), respectively. By phenotypic frailty, 60 (11.1%) were robust, 305 (48.2%) were pre-frail, and 272 (39.8%) had frailty, with a mean time at home of 122.1 days (SD 58.6), 100.4 days (67.1), and 82.2 days (71.9), respectively. As frailty increased, the proportion of time spent in SNF and long-term care increased, particularly for those with frailty by CGA-FI [Figure].

Conclusions: Older adults with moderate and severe frailty have extremely short time at home, compared to those who are robust or non-frail at baseline. Clinical frailty assessments may provide valuable risk stratification for post-acute SNF care.



P37

Patterns of end-of-life care and healthcare spending among persons with dementia in Medicare Accountable Care Organizations

J. J. Zhang,^{1,2} H. Gotanda,³ D. B. Reuben,⁸ A. M. Walling,^{1,4} D. S. Zingmond,¹ C. L. Damberg,⁵ N. S. Wenger,¹ H. Xu,¹ R. Ikesu,^{1,6} S. Kaneshiro,¹ Y. Tsugawa.^{1,7} 1. General Internal Medicine and Health Services Research, University of California Los Angeles, Los Angeles, CA; 2. National Clinician Scholars Program, University of California Los Angeles, Los Angeles, CA; 3. General Internal Medicine, Cedars-Sinai Medical Center, Los Angeles, CA; 4. Greater Los Angeles Veterans Affairs Healthcare System, Los Angeles, CA; 5. RAND Corporation, Santa Monica, CA; 6. Epidemiology, UCLA Fielding School of Public Health, Los Angeles, CA; 7. Health Policy and Management, UCLA Fielding School of Public Health, Los Angeles, CA; 8. Multicampus Program in Geriatric Medicine and Gerontology, University of California Los Angeles, Los Angeles, CA.

Background: Medicare Accountable Care Organizations (ACO) aim to incentivize high quality care at lower spending. We compared patterns of end-of-life (EOL) care and healthcare spending among persons with dementia in ACO vs non-ACO.

Methods: Cross-sectional study of Medicare beneficiaries with dementia ≥ 66 years who died in 2016-2019 ($n=362,644$). Exposure was ACO. Outcomes were 1) advance care planning (ACP); 2) palliative care counseling or hospice (last 180d of life); 3) hospital death or high-intensity care at EOL (i.e., last 30d of life ED visit, hospitalization, ICU admission, CPR or mechanical ventilation, feeding tube); 4) healthcare spending (last 6mo of life). We used multivariable linear regression models adjusting for beneficiary characteristics.

Results: 23% of decedents were in ACO. Decedents in ACO had higher ACP (15.2% for ACO vs 14.0% for non-ACO; difference +1.1 percentage points [pp]; 95%CI +0.8 to +1.4 pp; $p<0.001$) and ED visits (52.3% vs 51.6%; +0.7 pp; 95%CI +0.3 to +1.1 pp; $p<0.01$). Decedents in ACO had lower hospital deaths (15.9% vs 16.4%; -0.5 pp; 95%CI -0.8 to -0.1 pp; $p<0.05$) and feeding tube (1.4% vs 1.5%; -0.2 pp; 95%CI -0.3 to -0.1 pp; $p<0.05$). No evidence that other outcomes differed by ACO status. Healthcare spending was lower in ACO vs non-ACO (\$40,827 vs \$43,005; -\$2,178; 95%CI -\$2,489 to -\$1,868; $p<0.001$).

Conclusions: Decedents with dementia in ACO vs non-ACO had higher proportion of ACP and ED visits and lower proportion of hospital death and feeding tube. Total healthcare spending in the last 6mo of life was lower for decedents in ACO vs non-ACO. Medicare ACO may deliver marginally less intensive care at EOL and lower healthcare spending for persons with dementia.

P38

Changes in Health Care Use when Older Adults with Diabetes Develop Dementia: A Retrospective Cohort Study

S. Nothelle,¹ H. Kleijwegt,² E. Bollens-Lund,² K. Covinsky,³ C. Ankuda.² 1. Johns Hopkins University, Baltimore, MD; 2. Icahn School of Medicine at Mount Sinai, New York, NY; 3. University of California San Francisco School of Medicine, San Francisco, CA.

Background. Up to 40% of persons living with dementia have diabetes. Incident dementia in the setting of diabetes is associated with increased hospitalization, however, little is known about health care use in years leading up to and following development of dementia. We aimed to describe changes in health care utilization in the three years pre- and post- development of dementia among older adults with diabetes.

Methods. We used data from the National Health and Aging Trends Study linked to Medicare fee-for-service claims from 2011-2018. We included community-dwelling adults 65 years and older who had diabetes without dementia. We matched older adults who developed dementia at the year of incident dementia to controls using coarsened exact matching. We matched on age, sex, presence of 3+ Elixhauser comorbidities, and presence of diabetes in 2011 vs. later. Dementia was identified using a validated probable dementia algorithm. We examined annual use of outpatient visits, emergency department (ED), hospitalization, post-acute skilled nursing facility (SNF) in the three years pre- and three years post-incident dementia or matching.

Results. We included 195 (15%) older adults with diabetes who developed dementia and 1107 (85%) matched controls. Older adults in both groups had a mean age of 81.6 years and were 56.4% female. Older adults with dementia were more likely to be of minority racial and ethnic groups (26.7% vs. 21.3% Black, non-Hispanic, 15.3% vs 6.7% other race or Hispanic).[s1] Outpatient visits decreased in both groups over time, with a larger decrease in the dementia group, (mean visits: 6.8 (SD 2.6) to 4.6 (SD 2.3) dementia; 6.4 (SD 2.6) to 5.5 (SD 2.7) controls). Hospitalization, ED visits and post-acute SNF days were consistently higher in the dementia group, and rose similarly in both groups (e.g. mean inpatient days 3.1 (SD 3.4) to 6.4 (SD 8.3) dementia; 1.6 (SD 2.3) to 3.2 (SD 4.3) controls).

Conclusions. Older adults with diabetes who developed dementia had decreasing rates of outpatient use over time. However, older adults with diabetes who develop dementia have higher rates of acute and post-acute care use than peers without dementia, even up to three years prior to dementia development.

P39

Influence of Hospice Enrollment on Exposure to Central Nervous System-Active Medications Among Medicare Decedents with Dementia

L. Gerlach,¹ L. Zhang,¹ J. Teno,² D. Maust.¹ 1. Psychiatry, University of Michigan, Ann Arbor, MI; 2. Brown University, Providence, RI.

Background: Central nervous system (CNS)-active medications are widely prescribed to patients living with Alzheimer's disease and related dementias (ADRD), but potential harms may outweigh benefits. While previous studies have examined CNS-active medication prescribing among patients with ADRD, considerably less is known about their use within hospice care. We explored the extent to which hospice enrollment is associated with CNS-active medication exposure among Medicare decedents with ADRD.

Methods: This cross-sectional study used data from Medicare decedents with ADRD in 2017. We examined the likelihood of CNS-active medication exposure in the last 6 months of life by hospice enrollment status using logistic regression models adjusting for beneficiary age, sex, race/ethnicity, rurality, and medical and psychiatric comorbidity. Results are presented as predictive margins, which represents the average adjusted prescribing rate if the entire sample had been in a given group.

Results: Among 399,408 Medicare decedents with ADRD in 2017, 60.6% were enrolled in hospice in the 6 months prior to death. Hospice enrollment for decedents with ADRD was more common among those 85+ years, female, and non-Hispanic white. After adjusting for differences, exposure to benzodiazepines (72% hospice vs. 29% non-hospice, $p < 0.001$), antipsychotics (55% hospice vs. 26% non-hospice, $p < 0.001$), opioids (77% hospice vs. 43% non-hospice, $p < 0.001$), antidepressants (65% hospice vs. 58% non-hospice, $p < 0.001$), and antiepileptics (44% hospice vs. 40% non-hospice, $p < 0.001$) were significantly higher among ADRD decedents enrolled in hospice.

Conclusions: We found that ADRD decedents enrolled in hospice were significantly more likely to be exposed to CNS-active medications, including more than twice as likely to receive benzodiazepines and antipsychotics. While hospice is an increasingly utilized benefit for a growing number of patients with ADRD, findings highlight the need for better ways to manage ADRD care in hospice settings and consider more nuanced prescribing approaches to reduce potentially inappropriate medication exposure.

POSTER SESSION A

Wednesday, May 8
7:00 pm – 8:00 pm

A1

Severe hypercalcemia leading to altered mental status as a presenting feature of sarcoidosis: A case report and review of literature

K. P. Joshi,¹ D. Joshi,³ P. Priyambada.² 1. Hematology/oncology, Singing River Health System, Pascagoula, MS; 2. Singing River Health System, Pascagoula, MS; 3. Tribhuvan University Institute of Medicine Maharajgunj Medical Campus, Maharajganj, Nepal.

Introduction:

Severe hypercalcemia is a medical emergency due to the risk of major acute medical complications like acute renal failure and altered mental status. Hypercalcemia can be seen in about 6% of sarcoidosis and presentation with severe hypercalcemia is uncommon.

Case presentation:

A 69-year-old male came to the emergency room with altered mental status for 2 days. He was feeling weak and tired for 1 month, worsening over 1 week before presentation. He also reported diffuse body pain as well as constipation for 1 week. He was confused and his altered mental status worsened ultimately needing intubation and mechanical ventilation for airway protection.

Labs at admission showed calcium was critically elevated at 18.7gm/dl. Creatinine was elevated to 5.16, and PTH was normal. The parathyroid-related peptide was not significantly elevated. His Myeloma work-up was unremarkable. Blood counts were unremarkable. He had a history of prostate cancer status post prostatectomy, so PSA was done to look for recurrence and PSA was 0. He received Calcitonin and a dose of Denosumab for hypercalcemia. Further workup with PET scan showed multifocal bony uptakes and hypermetabolic nodal uptake in the retroperitoneum mesentery, left axilla, and right lower neck. Retroperitoneal biopsy was suggestive of sarcoidosis.

His calcium started trending down with Denosumab and he was evaluated by rheumatology for sarcoidosis. Initially, he needed Denosumab every month but after methotrexate and hydroxychloroquine were stated for sarcoidosis, his calcium returned to normal, and did not require any Denosumab.

Discussion:

Severe hypercalcemia is usually associated with hypercalcemia of malignancy. Nonmalignant causes like sarcoidosis need to be investigated for the etiology of severe hypercalcemia for appropriate treatment.

A2

The Great Masquerader: The misdiagnosis of dementia in the depressed.

D. Meshoyrer, A. Panagiotou, K. Sharma. *Geriatrics, Morristown Medical Center, Morristown, NJ.*

Introduction:

Geriatric depression often presents with somatic symptoms such as body aches, difficulty sleeping, and decreased cognition, making it challenging to diagnose. At times, cognition can become so impaired that it is misdiagnosed as dementia. This case discusses a patient whose first episode of major depressive disorder (MDD) was misdiagnosed as neurocognitive disorder with behavioral disturbance, leading to improper management and further decline. However, through proper history it became apparent that she was having a MDD episode that was exacerbated with polypharmacy. Once effectively managed, the patient recovered cognitively and functionally.

Case:

An 83-year-old woman with atrial fibrillation and hypertension was hospitalized from a skilled nursing facility (SNF) for altered mental status. A month prior, she was admitted for poor intake and weight loss. Workup was unrevealing, and she was discharged to SNF. There she was started on olanzapine and mirtazapine. She had no prior psychiatric history and had never taken psychotropics. The family was concerned with initiation of psychotropics and requested discontinuation. Post discontinuation, she exhibited aggression and was found wandering around disrobed, triggering the current hospitalization.

On admission, she was hemodynamically stable but extremely anxious and delusional. Diagnostic work-up was non-revealing. She received two doses of sodium valproate over the course of 6 days, and began to exhibit catatonia. A diagnosis of delirium with catatonic features and possible underlying MDD was made. Scheduled low-dose lorazepam and olanzapine were initiated with improvement. Patient began to speak and more history revealed depressive symptoms and recent negative life events. Aripiprazole was started, and she was discharged back to a SNF.

At 2 month follow-up, she was in a positive mood and had gained weight.

Discussion:

When late life depression occurs it becomes challenging to distinguish it from dementia, as both these diagnoses have overlapping symptoms, especially when depression affects cognition. This patient's first depressive episode occurred at the age of 83. This case highlights how delirium and severe depression can be misdiagnosed as major neurocognitive disorder. Furthermore, it shows the importance of reviewing pre-admission medications and obtaining a thorough history from collaterals.

A3

A Rare Side Effect Of Pimavanserin

O. Bansode, P. Solomon, N. Shukla. *Geriatrics and Palliative Care, Northwell Health, New Hyde Park, NY.*

Introduction: Parkinson's Disease-related psychosis, known to be associated with increase in morbidity and mortality, had no FDA-approved treatment until approval of pimavanserin in 2016. The most common reported adverse effects of pimavanserin-treated patients are nausea, peripheral edema, confusion, constipation, prolonged QT interval and gait disturbances.

Case Presentation: 79-year-old male with PMH of Parkinson's Disease-related psychosis, pre-diabetes presented with altered mental status and acute hypoxemic respiratory failure. Patient's wife reported tongue and lip swelling on presentation. Pimavanserin was recently started outpatient for treatment of Parkinson's related psychosis. Home medications were reconciled and none had a clear link to angioedema; physical exam with clear lung fields and unremarkable blood work. CT Head showed mild chronic microvascular changes

and chest x-ray was unremarkable, ruling out pulmonary causes of hypoxemia. ENT was consulted and indirect laryngoscopy was unsuccessful due to patient agitation. Patient was admitted to hospitalist service for suspicion of Pimavanserin-related angioedema and the medication was held. Neurology was consulted and agreed to hold pimavanserin. Supportive treatment with oxygen therapy was initiated that lead to clinical improvement.

Discussion: Most antipsychotics' mechanism of action involve dopamine receptors. Pimavanserin has a unique mechanism of action with no affinity for dopamine receptors and is a combination of inverse agonist and antagonist activity at the serotonin 2A receptors. This offers advantages in regards to the potential worsening of motor symptoms in Parkinson's disease. It is not recommended to use pimavanserin with CKDIV or hepatic impairment. Coadministration of pimavanserin and strong CYP3A4 inhibitors increases the plasma concentration of pimavanserin. This drug significantly reduced PD-associated psychotic symptoms compared with placebo in clinical studies and is the only FDA-approved treatment for this condition. Angioedema is listed as a potential adverse effect of pimavanserin on the package insert. However, there have been no reports of angioedema as an adverse event in any of the pimavanserin clinical trials in PD psychosis. This is the first case in literature to report such a rare adverse effect.

Conclusion: This case describes a rare presentation of pimavanserin related side effect, angioedema.

A4

Shrinking Brain- A Sequela of Traumatic Brain Injury

H. M. Mohamed,¹ T. Kaur,² V. leung.¹ *1. Geriatrics, University of Illinois Chicago, Chicago, IL; 2. Medicine, University of Illinois COM at Chicago, Mokena, IL.*

Background: Cerebral atrophy in response to traumatic brain injury is a documented phenomenon in both case reports and review articles. A generalized total brain loss of 5% per year has been described following moderate-to-severe brain trauma. The etiology is part of the secondary phase of brain injury involving a complex biochemical cascade of events associated with inflammation, swelling, and increased intracranial pressure. The clinical presentation can be quite similar to Alzheimer's disease but elucidated through thorough history taking.

Case Report: A 62-year-old Persian female with no past medical history was referred to the geriatrics clinic due to advanced dementia. She was evaluated at an outside institution for which she was diagnosed with Alzheimer's dementia after all other causes of dementia were ruled out. At the time of the presentation to our clinic, she had lost the ability to speak English, which she was previously fluent in, and lost significant vocabulary in Persian. She was dependent on all ADLs and IADLs. With thorough history taking, the family gave a history of head trauma in a motor vehicle accident in the past. A few months after the accident, her sister noted some personality changes; however, her symptoms were not significant enough to warrant medical attention. Four years later, she continued to have progressive cognitive and functional decline until she quit work as a chemistry teacher and, subsequently, moved in with her sister when she was 58 years old. She continued to decline until she was totally dependent around seven years post-accident.

The patient's brain imaging prior to the head trauma for paresis was normal and showed no brain atrophy. Other images done five- and six-years post-head trauma showed significant brain atrophy.

Conclusion: Traumatic brain injury is not limited to acute functional loss that is detected right after a trauma. A secondary phase of brain injury involves a complex biochemical cascade of events, eventually leading to brain atrophy and functional decline. This can become clinically evident as neuro-cognitive decline within years to decades. Understanding a patient's projected atrophy pattern may

provide physicians the opportunity to better prepare patients and their families for possible injury outcomes, including dementia, aphasia, or even behavioral and mood alterations.

A5

Very Late Breast Cancer Recurrence after Mastectomy and Tamoxifen Therapy

J. Windholtz, J. Wei, P. Mendiratta. *Geriatrics, University of Arkansas for Medical Sciences, Little Rock, AR.*

Background: Advancements in breast cancer treatment have significantly improved outcomes, but late recurrence remains a challenge. Late recurrence, defined as recurrence after 5 years from surgery, poses diagnostic difficulties. Risk factors include high lymph node burden, large tumor size, hormone receptor positivity, and low Ki67. Despite a 40% risk reduction with postoperative tamoxifen, the incidence rates of late or very late recurrent breast cancer remain unclear.

Methods: We present a case of an 85-year-old female with a history of breast cancer in 1994, undergoing mastectomy, reconstructive surgery with saline implants a few years and 5 years of tamoxifen therapy. Twenty-nine years later, she presented with recurrent metastatic breast cancer. Physical exams and mammograms were routinely normal. Symptoms prompted imaging, revealing an infiltrating mass in the neck and mediastinum, encasing major vessels. Biopsy confirmed metastatic breast adenocarcinoma.

Results: The patient's health was otherwise good. Imaging showed an extensive infiltrative mass, and biopsy confirmed metastasis from breast primary. The patient was diagnosed with clinical stage IV (rcT0, cN0, cM1) ER/PR-positive, ERBB2-negative breast cancer. She is being treated with anastrozole and CDK-inhibitor ribociclib. She was referred to RT for palliative radiation to her brachial plexus pain caused by the tumor.

Her brain imaging was negative for metastasis, but coincidentally showed en-plaque meningioma-which will be addressed with neurosurgery.

Conclusions: Late breast cancer recurrence challenges traditional follow-up protocols. Recommendations for tamoxifen therapy duration are typically 5 years, but late recurrences suggest continued adjuvant treatment. Biomarker assays aid in guiding treatment decisions, emphasizing the importance of extended endocrine therapy in select patients. Geriatric patients, especially those with reconstructive surgery, require vigilant monitoring, as deep recurrences may be concealed. Current surveillance lacks specific imaging recommendations for mastectomy patients, necessitating careful consideration of signs and symptoms.

A6

Too Little Too Late; Physician-Patient Communication Matters

C. Arrendell,¹ S. Huston.² *1. Johns Hopkins University, Baltimore, MD; 2. Veterans Health Administration, Baltimore, MD.*

Introduction: Physician-patient communication is a critical function in providing high quality patient care. We present a case showing the importance of effective communication while also highlighting the potential for a negative outcome if productive communication is delayed.

Case: A 65 year old male with PMH of HFrEF, A-fib, and ESRD on HD presented to a hospital with multiple complaints. He was found to be in A-fib with RVR and out of his medications for one week. He had multiple recent hospitalizations and frequently missed appointments and dialysis sessions. A geriatric/palliative care consult was placed for a goals of care discussion. A decision was made to arrange a family meeting.

The family meeting was done with his medical team, cardiology, geriatric/palliative care, patient and patient's fiancé. Patient stated that his health had declined over the past six months. It was unearthed that

he was intermittently adherent to his medications and would not allow his fiancé to help. He expressed feelings of hopelessness and a lack of understanding of his medical conditions. Cardiology patiently and thoroughly outlined possible treatment options including heart and kidney transplants. It was also explicitly explained that adherence to his medications and appointments would be imperative for the next treatment steps to occur. He was also gently encouraged to speak with psychotherapy about his mood and feelings and he agreed. The family meeting was extremely successful and the patient expressed a better understanding of his medical conditions and what is required to move forward with treatment, he felt motivated and assured his family and the team that he would be on top of his care and accept help at home.

After his discharge home, he was compliant with medications and presented to all appointments. Unfortunately, he returned to the hospital a short time later with shortness of breath and chest pain despite his compliance and passed away.

Discussion: This patient had a 3-year period of declining health and non-adherence before effective communication took place. Unfortunately, the years of non-adherence and disrupted communication with physicians in combination with other factors lead to the development of end stage disease processes and his untimely passing. Effective doctor-patient communication is largely physician dependent and if it had been done as an early intervention, may have been able to prevent this mortality.

A7

Silent killer of brain cells: An under-explored cause of dementia

H. DALIA, M. Khan. *Geriatrics, The MetroHealth System, Cleveland, OH.*

Introduction:

In this case study, we are going to explain the carbon monoxide (CO) poisoning as an under-explored cause of cognitive impairment.

Case:

62 years old woman came to memory clinic with concerns of progressive memory loss leading to increasing forgetfulness and missing appointment. She has past medical history of hypertension, hyperlipidemia and claustrophobia. She has multiple emergency department visits in past one year.

On quantitative screening test, she performed poorly on abstraction, visuospatial, memory component test without functional impairment. She denied any abnormal movement disorder, tremors, sleep disturbances, hallucinations or mood changes. Physical examination was grossly intact. CBC, TSH, BMP, B12, LFT, and Hepatitis, HIV/syphilis serology were within normal limit. Neuropsychic evaluation showed no identifiable, untreated, or under treated mental health disorder. No concerns for substance use disorder.

MRI brain was not completed due to claustrophobia. CT head showed generalized brain parenchymal loss. On further review of hospital records, we found history of CO poisoning when she was 56 years old. During that hospitalization, she has CO level 32.5. She underwent hyperbaric oxygen chamber treatment. CT scan of the head without contrast showed a thin liner decreased attenuation at the periventricular white matter of the left temporal region (figure 1) and areas of bilateral globus pallidus necrosis (figure 2).

Discussion:

CO poisoning can cause hippocampal necrosis, demyelination of the cerebral white matter, and spongy necrosis of the globus pallidus and cerebral cortex. This case report highlights the association between the development of delayed neurological sequelae after brain injury from CO poisoning.

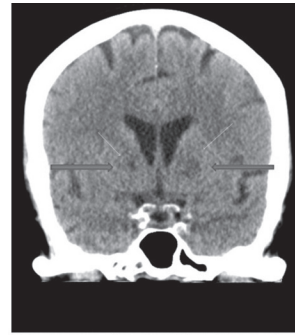


Figure 1: Area lacunar infarctions at the lenticulostriate nucleus (red arrow), subacute infarction at the white matter at the left temporal region.

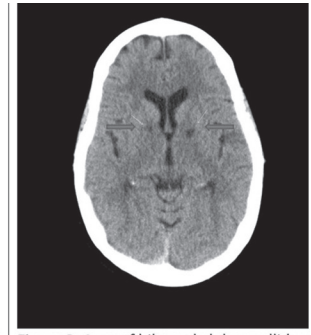


Figure 2: Area of bilateral globus pallidus necrosis (red arrow)

CT scan of Head

A8

The hand that feeds the mouth: A case of self-cannibalism in a patient with dementia

K. Dere, C. VILLA, R. Motarjemi. *Geriatrics, ucsd, San Diego, CA.*

Background:

Self-cannibalism, an extremely rare form of self-mutilation, is associated with various psychiatric diseases. This study reports a case of self-cannibalism in a patient with dementia.

Case:

A 65-year-old male with history of stroke, seizures, chronic kidney disease, and vascular dementia was brought in from a residential care facility with wounds on his right hand. There had been inconsistent reports of the patient chewing on his hands. At baseline, the patient is bed bound, incontinent of bowel and bladder, and speaks few words. Initial evaluation revealed fever and extensive wounds on the fingertips of his right hand. Imaging showed soft tissue infection without osteomyelitis. Wound and blood cultures grew staphylococcus aureus, and he completed a course of antibiotics. The patient also received wound care and physical and occupational therapy. He continued to bite his fingers, and the right hand was placed in a mitten. He did not attempt to bite his left hand. This behavior persisted up until discharge. He was otherwise pleasant, followed commands, and showed no signs of psychosis or agitation. His wounds healed significantly, and he was discharged to another facility for wound care.

Discussion:

One hypothesis for the patient's behavior was that he had inadequate nutrition, and due to his dementia, he found his fingers to be the most accessible. Speech therapy cleared him for oral intake, and he was given double portions and monitored by the nutrition team. He was found to have iron deficiency anemia and was treated with IV iron. Neither of these interventions changed his behavior. He was evaluated by neurology, who ruled out focal seizures. After extensive work up and observation, the only explanation found for his hand-biting behavior was self-cannibalism due to dementia. Self-cannibalism has been described in only a handful of patients with dementia. However, prior studies have found that self-mutilation in dementia occurs in as many as 22% of nursing home patients.¹ Neurochemical hypotheses have proposed that disruptions in serotonergic and/or dopaminergic pathways may lead to such behaviors; case reports have described treatment with SSRIs or antipsychotics.²

1. de Jonghe-Rouleau AP. Self-injurious behavior in nursing home residents with dementia. *Int J Geriatr Psychiatry* 2005;20:651-657.

2. Warnock JK, Burke J, Hueter C. Self injurious behavior in elderly patients with dementia: Four case reports. *Am J Geriatr Psychiatry* 1999;7:166-170.

A9

Mitigating Firearm Risks in Older Adults with Delirium through Preventive Measures

Y. Cui,^{1,2} P. Mendiratta,¹ O. Ahrendsen.² *1. Geriatrics, University of Arkansas for Medical Sciences, Little Rock, AR; 2. Geriatrics, Geriatric Evaluation and Management Center, Eugene J Towbin Veterans Affairs Healthcare Center, Little Rock, AR.*

Background: Firearm-related injuries (FRI) rank as the second leading cause of trauma-related deaths in the United States. A significant proportion of older adults either own firearms or live with them.

Case report: This case involves an 81-year-old male with a medical history of osteoarthritis and atrial fibrillation who reported progressive weakness and worsening right hip pain over several months. Initially, the patient fell at home, prompting hospital admission, where he received treatment for a urinary tract infection with fluoroquinolones. During this hospitalization, the patient was also found to be delirious. Despite being discharged home with family support, there was concern that the patient's mental status did not return to his baseline.

For the patient's ongoing hip pain, a family member provided a massage gun, which the patient kept at his bedside. Four days later, the patient inadvertently grabbed his loaded firearm that he also kept within reach instead of the intended massage gun, resulting in an unintentional self-inflicted gunshot wound to his right hip. This led to a level 1 trauma hospitalization with a right subtrochanteric femur fracture requiring intramedullary nail insertion. Additionally, due to ongoing altered mental status, a head CT was ordered, and the patient was diagnosed with a subacute stroke. Prior to discharge, the patient and family received extensive education on firearm safety.

Conclusion: This case highlights the importance of inquiring about firearm ownership and counseling patients about the safe storage and use of firearms. Implementing firearm safety protocols, especially for patients experiencing changes in mentation, could help prevent inadvertent firearm-related injuries.

A10

Flying High with Sacral Neuromodulation

Y. Youssef, S. Sehgal. *UCI Medical Center, Orange, CA.*

Introduction: Overactive bladder (OAB) is a common urologic syndrome frequently presenting in the geriatric population manifested by symptoms of urinary urgency, frequency, and nocturia and may present with or without incontinence. First, second and third-line approaches to therapy have been established in a stepwise manner to help manage these symptoms and improve a patient's quality of life.

Case: This is a case of a 67-year-old male with past medical history of bladder cancer, interstitial cystitis, benign prostatic hyperplasia and overactive bladder symptoms. In addition to lifestyle modifications, pharmacotherapy with beta agonists and anticholinergics were initiated, however he continued to endorse severe urinary frequency and urgency that was refractory to first and second-line therapies. His disruptive voiding symptoms were not only affecting his quality of life, but they were inhibiting him from achieving his goal of regaining his pilot's license. He was referred to a Neuro-Urologist who recommended placement of a sacral neuromodulator, which was successfully implanted. During his first post-operative appointment, he reported a greater than fifty percent improvement in his symptoms. Most importantly, he was able to discontinue taking all overactive bladder medications and successfully reobtain his pilot's license.

Discussion: The prevalence of overactive bladder in the geriatric population continues to rise with estimates of about 30% of adults 65 years of age and older. Unfortunately, the symptoms of OAB can be mistaken as a normal consequence of aging especially if associated with urinary incontinence. Sacral neuromodulation (SNM) is considered a third line treatment to OAB symptoms that have been refractory to primary lifestyle changes and pharmacological interventions.

SNM has an efficacy of 80-85% improvement in women, however the efficacy in men is not well documented due to underuse in this patient population. The procedure is considered successful if the patient reports greater than 50% improvement of symptoms. New devices may last up to 15 years or more, providing an alternative, long-term treatment for OAB symptoms and most importantly, improving patients' quality of life and helping them achieve their goals.

A11

Synergy between High-functioning Systems and Well-trained Individuals: A Case Study of an Embedded Geriatrics Team in Assisted Living Making the Difference for a Patient with Cushing's Syndrome

S. O. Ayo, S. Howd. *Geriatrics, University of Rochester Medical Center, Rochester, NY.*

Background: The medical complexity of assisted living (AL) residents is increasing over time. Additionally, individuals residing in AL will usually experience increasing complexity of their medical problems and new geriatric syndromes during their stay. Despite this, the provision of medical services within AL facilities remains highly variable, owing in part to inconsistent regulatory oversight and shortages of geriatrics-trained professionals. This population is vulnerable to misdiagnosis and decline when experiencing fragmented, non-geriatrics care. We describe a patient with complex symptoms who benefited from a high-quality, embedded geriatrics practice within an AL.

Case: A previously healthy 72-year-old woman experienced subacute cognitive decline, gait instability, and falls. Her decline in function necessitated transition from her home to an AL. In parallel, she developed new onset hypertension refractory to triple therapy, new onset type 2 Diabetes, lower extremity edema, myopathy and fatigue. The initial visit with the AL Geriatrician also noted facial plethora, hirsutism, and central obesity on exam. After repeated hospitalizations for falls, the Geriatrician coordinated a workup with the inpatient team, which revealed elevated blood cortisol, suppressed ACTH and a 7 cm adrenal mass. An adrenalectomy was performed, confirming the diagnosis of a Severe Adrenal Cushing's syndrome secondary to an Adrenocortical Carcinoma. With appropriate treatment, the patient's symptoms and physical/cognitive function have globally improved.

Discussion: Older patients with complex syndromes often go undiagnosed and untreated, as a result of individual and systemic factors, such as cognitive biases and ageism in individual practitioners and a fragmented healthcare system that does not prioritize longitudinal relationships. The patient described went undiagnosed until she met a geriatrics team that was embedded in her new AL, had the specialty training in geriatrics necessary for diagnosing a complex problem, and was able to coordinate management between outpatient and inpatient care. As our population ages and AL has become the largest provider of long-term care in the US, health systems need to prioritize embedding medical providers with Geriatrics expertise in assisted livings in order to assure best care of medically complex patients.

A12

Bone Cement Implantation Syndrome (BCIS): A Complication of Hip Fracture Surgery with Poor Outcomes

M. Mastoi, A. Lebelt, T. Dharmarajan. *Geriatric Medicine, Montefiore Medical Center, New York, NY.*

Background

Bone cement implantation syndrome (BCIS) is a rare peri-operative complication after orthopedic surgery; it follows the implantation of a cemented prosthesis stem and is often followed by adverse outcomes. The syndrome needs recognition.

Case

A 74-year-old female with heart failure and end-stage renal disease on dialysis was hospitalized with chest pain and dyspnea after missed dialysis sessions. Shortly, she reported an inability to bear weight on

the right hip. CT showed a femoral neck fracture (intertrochanteric). Orthopedic surgery followed with right hemiarthroplasty (RHA). During surgery when the femoral head was impacted onto the stem, the patient became hypotensive, responding to fluid resuscitation. Post-op cardiac arrest followed, and revived. An echocardiogram confirmed a dilated right ventricle with hypokinesis. After a stay of 38 days, she died.

Discussion

Bone cement is an acrylic substance including methyl methacrylate, barium sulfate, and benzyl peroxide. BCIS is a rare complication of hip orthopedic surgery characterized by hypoxia, hypotension, and loss of consciousness, during the procedure of femoral reaming, cement implantation, prosthesis insertion, or joint reduction. Pathophysiology is complex; it involves increased intramedullary pressure, cement exothermic reaction, and release of vasodilatory mediators. Medullary lavage before insertion of cement reduces mediators release and must be considered in all patients. BCIS for hip HA has a total incidence of 25-38% for all cemented HA. Risk factors: age, physical status, impaired cardiac function, pulmonary hypertension, osteoporosis, bony metastases, intertrochanteric fracture, and surgical techniques. Cemented HA is preferred as there is a decreased risk of reoperations due to fewer infections, periprosthetic fractures, aseptic loosening, and dislocations in older people. Prevention through optimal volume status, oxygenation, hemodynamic monitoring, and proper surgical techniques.

Key Points

*BCIS is a rare complication of hip fracture surgery and is associated with poor outcomes.

*Identifying high-risk patients by pre-operative evaluation and optimization, including discussions between surgeon and anesthesiologist may help minimize dreaded complications of BCIS.

Reference

Moldovan F et al. Bone Cement Implantation Syndrome. A rare disaster following Cement Hip Arthroplasties. *J Pers Med.* 2023;13:1381

A13

The Forty-Six-Year-Old Wound

O. L. Glistner. *Division of Geriatrics and Palliative Care, The George Washington University, Washington, DC.*

Background: According to a recent article in the journal, *Advanced Wound Care*, “One to two percent of the population in developed countries will experience a chronic wound due to increased life expectancy coupled with a rise in comorbidities.” Critical wound care decisions after initial standard of care surgical and infectious disease methods treating a chronic, poorly-healing wound should also include newer methods using autografts and allografts, which are available to wound care specialists. These include the Graftix PL Prime Lyopreserved placental membrane allograft from human placental tissues; as well as the 3C Patch autograft, formed using a centrifuge from a patient’s own blood and utilizing its native fibrin, white blood cells and platelets. A 67 year-old African American female who was walking while barefoot, stepped with her left foot onto glass on a sidewalk in Washington, D.C. in 1976. This led to a left midfoot plantar wound that has lasted for 46 years. She has a complex past medical history including HIV since age 23 years old, morbid obesity (BMI 48.9 kg/m²), type 2 diabetes mellitus for 2 years, GERD, Barrett’s esophagus, esophageal stricture, history of lap band surgery, opioid induced constipation from treatment of chronic foot pain and migraine HA, hypertension and hyperlipidemia.

Methods: She underwent initial surgical debridement, curettage and attempted skin grafting to the site multiple times ineffectively. Her condition required wearing surgical shoes most of the next 46 years to ambulate and frequent wound care for the chronically open wound. She was diagnosed with Type 2 diabetes in 2022. Her workup also included biopsies of the foot and a negative evaluation for vascular cause of her wound.

Results: The wound has decreased in size radically with continued standard of care and new care with the Graftix PL Prime Lyopreserved placental membrane allograft. Wound care specialists caring for the patient are reevaluating the wound and considering transition to the 3C Patch autograft, once the size of the wound improves to a smaller diameter.

Conclusion: The case highlights the importance of consideration of the newest advances in wound care when serving underrepresented minority populations, including the elderly. Uncommon methods of treatment should become more common at the primary care level and especially in the Geriatric population, which continues to grow and is at increasing risk for these wounds.

A14

“How do I look?” asked the 97 year old patient

P. Ghaj,¹ N. Mujahid,^{2,1} I. Neupane.^{2,1} *1. Division of Geriatric and Palliative Care Medicine, Brown University, Providence, RI; 2. Medicine, Brown University Warren Alpert Medical School, Providence, RI.*

Introduction: The World Health Organization (WHO) defines ageism as the stereotypes, prejudice, and discrimination towards others or ourselves based on age. Older adults commonly face ageism in social and healthcare settings. New or worsening disabilities, lower psychological wellbeing and higher probability of death have been associated with ageism. Stereotyping also affects memory and cognitive performance negatively.

Case: A 97 year old male with a history of cerebrovascular accidents without residual deficits presented to the hospital after a fall down two steps, face first while entering his driveway. He was found to have multiple rib fractures, a vertebral compression fracture, and a displaced bilateral nasal bone fracture. Once admitted to the hospital, multidisciplinary team including Geriatrics, Plastic Surgery, and Neurosurgery were involved. His mental status and vitals remained stable. Pain was well managed. His nose, which appeared crooked, did not cause pain or difficulty in breathing. During rounds, he was asked if he would “want” to undergo a closed nasal reduction. The patient replied, “Listen, I want you to know something [pointing to the ceiling], I am going to live to be 100 years old unless the big man upstairs has anything to say about it.” When asked if he had seen his nose yet, he replied “No! What does it look like?” Upon seeing his nose, he immediately said, “Fix it! Now! I have friends and a family, I take care of myself and I cannot look like this.” A closed nasal reduction was performed at the bedside without complications. He was happy with the results.

Discussion: This patient had no contraindications. However, he was reluctantly offered the option of choosing a procedure that potentially improved his appearance. Would this have been the case had the patient been younger? Was it assumed that appearance at his age was not important to him? The patient’s choice to disagree with this stereotype is a powerful concept as it leads to a shift in the provider’s perspective of the patient. Once his values and state of health were recognized, the bedside procedure was performed.

Conclusion: Ageism can easily become an implicit bias as demonstrated. Objectively presenting treatment options and engaging the older adult in decision making is vital. As we continue to provide care to our aging demographics, we as healthcare providers need to be more cognizant.

A15

When Lead Is Your Friend And Enemy

B. R. Nashed,¹ M. Rossi.^{1,2} *1. Geriatric Medicine, UPMC, Pittsburgh, PA; 2. VA Pitt Health System and GRECC, PITTSBURGH, PA.*

Lead toxicity remains a health concern. Exposure to high lead levels acutely or small levels in chronic matter can result in healthcare hazards such as anemia and neurologic disorders.

Case

A 75-year-old male with PMH of Afib, and Lyme disease presented for evaluation of memory impairment. For a year, the patient has reported a decline in memory and a change in behavior. He has become irritable, less sociable, and very easily annoyed by his family. He leads an active lifestyle, walking two miles daily and continuing to engage in hunting and consumption of wild game like deer and rabbits. Three years ago, the patient was diagnosed and treated for his first episode of Lyme. Around 16 months ago, he complained of paresthesia in both hands, memory impairment, and poor balance. He was IgM negative and IgG positive for Lyme. His infectious disease physician wanted him to get evaluated by Psych to establish a diagnosis of memory impairment and then he was started on a 3-week-course of Rocephin which resulted in improvement of his numbness but his mental fog remained the same. With worsening cognition, he got further testing in early 2023 showing positive IgM which led to a 21-day doxycycline regimen. His cognition didn't improve. On his initial evaluation early in 2023, he scored 20 out of 30 in MOCA, showing deficits in visual-spatial skills, naming, attention, language, abstraction, and delayed recall. Due to his history of using lead ammunition and eating wild game, we obtained a lead level which was 12.6 mcg/dl. He was advised to avoid hunting to decrease lead exposure. We started him on escitalopram even though he didn't show typical signs of depression. CT brain showed mild to moderate chronic small vessel ischemic disease, remote right thalamic, right lateral parietal cortical infarctions and mild volume loss for the patient's age. When seen again two months ago, they mentioned improved irritability though still present. He had ceased using lead ammunition and recently used steel ammunition. His Lead level has decreased to 8.8 mcg/dl. His MOCA score improved to 23 from 20, and he was encouraged to increase his dose of escitalopram although we think his symptoms are thought to be due to lead toxicity and will work on deprescribing on our next visit.

Conclusion

This case study aims at spotting the light on hunting with lead ammunition as a source for lead toxicity which can lead to memory impairment and depression.

A16

Hospital at Home: Prioritizing What Matters Most

S. I. Ing,¹ C. Kao,¹ E. Zavala.² *1. Medicine, The University of Chicago Medicine, Chicago, IL; 2. Medicine, University of Chicago Pritzker School of Medicine, Chicago, IL.*

Background: Hospital at Home is a care model that has been implemented in the United States since the 1990's. The overall goal of this model is to improve patient centered outcomes, especially in older patients who may be more susceptible to risks of hospitalization and improve patient experience. In the summer of 2023, University of Chicago launched its own Hospital at Home (HaH) Program.

Methods: Retrospective review of electronic medical records.

Results: A 95-year-old male presented to the emergency room with loss of consciousness after choking on a piece of chicken. He received the Heimlich maneuver in the field with expulsion of the chicken and was subsequently taken to the hospital. He had a history of idiopathic dilated cardiomyopathy with an EF of 37%, complete heart block with a pacemaker, and chronic kidney disease stage 3a. In the emergency room he was found to have significant lower extremity edema in the setting of not taking diuretics for two weeks in the setting of low blood pressure readings. He was intravenously diuresed for three days before being offered transfer to the HaH program. His daughter served in the caregiver role and received education regarding checking vitals and monitoring for concerning symptoms that would require prompt escalation. A tablet was set up for direct communication with the dedicated HaH triage nurse. RN visited the patient in-person at home twice a day and the HaH attending did virtual visit once per day.

With intravenous diuresis at home, he continued to have sufficient urine output and decreased peripheral edema. Five days later, he was discharged from the HaH with cardiology and primary care follow-up and supplemental oxygen. Both the patient and the caregiver enjoyed the experience in the program. He later established care with a local geriatrics clinic and discussed what mattered most to him, which included time at home and avoiding hospitalization even if it was life-saving. He was referred for hospice and a POLST documenting his preference for DNR-DNI was completed.

Conclusions: HaH may represent a meaningful middle-ground for patients with advanced disease, bridging the gap between hospitalization and hospice, while preserving patient-centered outcomes, such as spending time at home with family, and reducing risks that are associated with prolonged hospitalization.

A17

The Red Eye of the Perfect Storm

M. Christy, F. Perez. *Geriatrics, Indiana University School of Medicine, Indianapolis, IN.*

Case: 82 y/o female with H/O anxiety, depression, and unspecified dementia was admitted to the hospital from a neuropsychiatric facility for a fall with hip fracture. In the emergency department, she became physically aggressive and received opioids, benzodiazepines, and droperidol. She underwent operative repair the next day. She remained extremely agitated, screaming in her bed - even when alone in her room - and repeating the same phrases over and over, some of which suggested paranoia +/- audiovisual hallucinations. She was unable to engage in conversation. She would stay awake almost all night screaming despite trazodone and melatonin. Medical management with antipsychotics was challenging given a prolonged QTc interval, and further benzodiazepines were not desirable given risk of paradoxical worsening of agitation. There were no overt lab abnormalities, no evidence of infection, and head CT was unremarkable. Her son shared that one week ago, they took a red-eye flight across the country (resulting in an abrupt 3-hour time change) to move her into assisted living. Her son noticed a rapid decline in her mental state after the flight, so she was transferred to a neuropsychiatric facility and then sent to the hospital less than 24 hours later. Oxybutynin had been started 3 months before admission. Venlafaxine, trazodone, donepezil, and 0.5mg qpm lorazepam were abruptly stopped on arrival to the neuropsychiatric facility. Her hyperactive delirium was likely the result of a perfect storm of acute fracture/pain, surgery, benzodiazepines, droperidol, poor sleep, very recent cessation of multiple psychoactive meds, and precipitated by a recent red-eye flight with sudden time change. She had a prolonged hospital course requiring discussion with cardiology to adjust her QTc for her LBBB, shared-decision making with son regarding antipsychotics, and multiple adjustments of her medications before returning to baseline. Her final regimen consisted of valproate, quetiapine, escitalopram, donepezil, and methylphenidate.

Discussion: With delirium's wide array of predisposing and precipitating factors, it is challenging to assess for all elements that came together to form the "perfect storm" in each case. The purpose of this article is not to suggest that the flight was the sole cause of this patient's delirium. Rather, it highlights the importance of travel as a novel precipitating factor, and thus may suggest that patients with dementia and their caregivers should be counseled on travel risks.

A18

No Good Options: Acute Cholecystitis Management in Patients with Advanced Dementia

A. Nizinski, C. Glatz. *University of Rochester Medical Center, Rochester, NY.*

INTRODUCTION: Early cholecystectomy is widely accepted as the preferred treatment for acute cholecystitis (AC) in young, robust individuals¹, however there is ongoing debate regarding the surgical

management of older adults, with a paucity of data to guide clinical decisions for those with dementia. While percutaneous cholecystostomy tubes (PCTs) are increasingly utilized in older, frailer patients as destination therapy, they pose longer-term risks that warrant thoughtful consideration.

CASE: A 73-year old nursing home resident with advanced dementia and multimorbidity was hospitalized for AC and treated with PCT, deemed a poor surgical candidate. In the several months following, the patient was hospitalized twice after pulling out her PCT, and after the second time it was not replaced. She later returned to the hospital with severe sepsis and CT revealed a perforated gallbladder with adjacent abscesses. General surgery felt the patient remained too high risk for operative management and recommended repeat PCT and abscess drain. Clinically she improved, though required hand mitts to maintain placement of her tubes. After initial stabilization and discharge, she ultimately died a few days later.

DISCUSSION: Older adults are often at higher risk for perioperative complications and mortality given their underlying comorbidities and diminished physiological reserves, leading some to advocate for PCTs as a perceived safer alternative for the management of AC in this population. However, this viewpoint is challenged by studies that found increased 30-day and 1-year mortality rates and rates of major complications for older patients treated with percutaneous drainage compared to laparoscopic cholecystectomy^{2,1}. Our case illustrates that longer-term issues with PCTs are not trivial and can include infection and dislodging. Older patients should not be discounted as cholecystectomy candidates following short-term PCT, and comprehensive preoperative geriatric assessment and optimization can aid in this process.

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A19

Post-Traumatic Brain Injury Psychotic Disorder: An In-Depth Case Analysis

P. Javidiparsijani,¹ R. Serdenes,² S. Yasar.¹ *1. Geriatrics, Johns Hopkins Medicine, Baltimore, MD; 2. Psychiatry, Johns Hopkins Medicine, Baltimore, MD.*

Introduction: Traumatic brain injury (TBI) is associated with various neuropsychiatric symptoms, including mood disorders and, rarely, psychotic disorders¹. The distinct neurobiological features of post-TBI psychotic disorders set them apart from conditions like schizophrenia. Additionally, TBI is associated with post-traumatic epilepsy (PTE), which can manifest with psychotic symptoms². This case study explores a nuanced presentation of psychotic disorder following TBI, highlighting its clinical evolution and diagnostic intricacies.

Case Presentation: A 65-year-old female, without any psychiatric history or significant medical illness, suffered a TBI from a mechanical fall two years ago. While initial CT scans showed no abnormalities, subsequent vestibular dysfunction, cognitive impairment, migraines, persecutory delusions, and multimodal hallucinations (auditory, visual, and olfactory) emerged and persisted. MRI revealed subtle subcortical white matter changes. Initially, she was diagnosed with Charles Bonnet syndrome, but Visual Evoked Potential results were normal. In addition to treating her with Galcanezumab for migraines, the patient was trialed on clonazepam, risperidone, aripiprazole, and nortriptyline. Despite interventions, persecutory delusions, hallucinations, and motor abnormalities persisted with

minimal improvement. Comprehensive evaluation indicated a broad differential diagnosis that included TBI-induced psychotic disorder, neurodegenerative processes (e.g., Lewy body dementia), and focal temporal lobe seizures. Physical examination revealed mild bilateral intentional tremor, bradykinesia, bradyphrenia, hypomimia and retropulsion. MOCA score was 26/30 in which test she lost one point on attention, one on abstraction and two on delayed recall. Single Photon Emission Computed Tomography using Ioflupane (DaTScan) did not show dopamine uptake deficit. Repeat brain MRI showed unchanged few white matter hyperintensities and no atrophy and EEG results were pending at the time of evaluation.

Conclusion: This case underscores the rare but severe consequences of TBI related psychosis on patients' lives. Evaluation of psychosis after TBI necessitates a comprehensive diagnostic approach for effective management. Ongoing investigations, including repeated imaging and EEG, aim to elucidate the underlying pathophysiology and guide targeted interventions.

A20

Transition of care: A key contributor to polypharmacy

A. Rajpal, G. Ruff, J. Drost. *Geriatric Medicine, Summa Health System, Akron, OH.*

Introduction

Polypharmacy is more common in older adults and increases the risk for delirium, falls, and harmful drug interactions. Medication errors can lead to polypharmacy and occur during the transition of care (TOC) process. The purpose of this case is to highlight the importance of TOC in preventing polypharmacy and its sequelae.

Case presentation

A 72 year old female with history of hypothyroidism, coronary artery disease, peripheral arterial disease, and stroke presented to the emergency department with altered mental status (AMS) from an assisted living facility (AL). On physical exam, she was oriented to self only and a chronic tremor was noted. Labs showed normal CBC, CMP, troponin and lactic acid. ESR and CRP were elevated at 116 and 214, respectively. CT abdomen / pelvis and CT head showed no acute findings. She was admitted.

Chart review showed she was taking multiple contributory medications including baclofen, tizanidine, buspirone, trazodone, hydroxyzine, alprazolam, duloxetine, levothyroxine, pregabalin, oxycodone/acetaminophen, and clonidine as needed. Geriatric medicine was consulted for AMS. Upon admission, baclofen, hydroxyzine, clonidine, tizanidine, alprazolam, duloxetine, pregabalin and oxycodone were discontinued. Her symptoms improved. Due to the concern for medication withdrawal, she was re-started on lower doses of baclofen, tizanidine, alprazolam, oxycodone, pregabalin and trazodone. Duloxetine was re-started at the same dose. Her tremor resolved. She was slightly foggy and tizanidine was discontinued. She slowly returned to baseline, and was discharged home with plan to continue to taper her medication. In conversation with AL, it was discovered her medication reconciliation was not performed appropriately upon AL admission. Medications from multiple admissions were continued leading to polypharmacy.

Discussion

This case was unique in the high degree of polypharmacy that was seen. This patient was taking multiple muscle relaxants, benzodiazepines, and opioids, among others. The disappearance of her tremor with a decrease in medication indicates this was a drug side effect or interaction. This case highlights the need for diligent efforts to be made during TOC, specifically the medical reconciliation process, to decrease medication errors. Interventions that decrease errors include improved clinician to clinician communication during TOC, and pharmacy involvement during medication reconciliation.

A21

Oral and Dental [Goals of] Care in Older Adults and Evolving Stages of Dementia

S. Phull,^{1,2} E. Schwab,^{1,2} 1. *Internal Medicine, Penn Medicine, Philadelphia, PA*; 2. *Corporal Michael J Crescenz VA Medical Center, Philadelphia, PA*.

Background:

Oral and dental health is an extremely important part of geriatric care, but when neglected, there can be significant consequences including tooth decay, periodontal disease, xerostomia, and conditions from underlying medical conditions or prescribed medications. Older adults with dementia are particularly high-risk for suboptimal dental care given the cost of care, lack of insurance and resources, and challenges associated with progressive functional and cognitive decline. As the prevalence and severity of dementia grows among older adults, providing adequate oral and dental care to this population will become more challenging.

Case Discussion:

A 98 yo female with moderate dementia, CVA with aphasia, osteoporosis, complete upper and partial lower dentures presented to the dentist after her bonded natural lower incisor and canine teeth spontaneously fell out. Prior to this the patient refused dental care for the past 4 years due to progression of dementia. Family and medical providers agreed the goal was to restore and maintain function using minimally invasive techniques. The remaining 6 natural roots were removed under local anesthesia in the dentist office and the patient was fitted for new lower dentures. The medical team decided against implants due to poor bone health and level of invasiveness.

Discussion/Conclusion:

Oral and dental care can become increasingly more difficult to provide in older adults with dementia especially as their cognition and function decline. The Seattle Care Pathway (2013), considers individuals, families, treatments, prevention and communication issues for varying levels of dependency to help guide practitioners and caregivers on how to approach dental care in older adults. The increasing levels of dependency show clear parallels with escalating stages of dementia.

In early dementia practitioners should encourage preventative behaviors. In advanced dementia the goal shifts to preservation of comfort and dignity. Barriers to receiving adequate dental care in older adults with dementia include access to skilled providers and care-resistant behaviors, the former can be overcome by increasing the availability of home-based dental programs and ensuring dental care in long term care facilities. Combating care-resistant behavior involves improved training for staff with evidence-based strategies shown to be effective in dementia care.

A22

Cancer masquerades as sciatica

B. C. Sohn, E. Tung. *Graduate School of Medicine and Science, Mayo Clinic Minnesota, Rochester, MN*.

Background: Older age, African American race, and family history increase risk for prostate cancer. Shared decision making is crucial to determine whether to continue prostate cancer screening after age 70.

Case Presentation: An 80-year-old white man with coronary artery disease and type 2 diabetes mellitus presented to clinic for right sided sciatica. He was robust at baseline and continued to work outside of the home. Physical examination did not reveal any neuromuscular abnormalities. He was referred to physical therapy and orthopedic surgery. 12-weeks later, he returned with an unintentional weight loss of 7.3 kilograms.

Complete blood count, comprehensive metabolic panel, human immunodeficiency virus – 1 and 2, QuantiFERON gold, thyroid stimulating hormone, cortisol, C-reactive protein, sedimentation rate, urine and serum electrophoresis were within normal limits. Prostate-specific

antigen (PSA) was 17.60 ng/mL, and it was 2.0 ng/mL two years ago (normal range < 4.00 ng/mL). Family history was notable for a brother with metastatic prostate cancer.

Prostate biopsy revealed high-grade adenocarcinoma. Whole body nuclear medicine and positron emission tomography revealed multiple nodal and osseous metastases. He tolerated androgen deprivation therapy, chemotherapy, and palliative radiotherapy to the right femur. Three months later, his PSA normalized.

Discussion: The United States Preventive Services Task Force recommends against PSA screening in men 70 years and older. However, men who have a first-degree relative with advanced prostate cancer at diagnosis, developed metastasis, or died of prostate cancer may benefit from continued screening. The American Urological Association does not recommend routine PSA screening in men aged 70 years or older with less than 10-to-15-year life expectancy. If one remains in excellent health, he may benefit from continued screening.

Conclusion: The 5-year relative survival rate for local vs metastatic prostate cancer is 100% vs 25.8% for men who are 75-years and older. Discussion of whether to continue to screen for prostate cancer after 70 years of age should include consideration of baseline functional status, patient preferences, life expectancy, family history, potential benefits, risks, and burdens, so that the patient can make an informed, personal decision.

A23

Valproic Acid In The Management Of Hyperactive Delirium

S. S. Randhawa, C. Kumar. *Yale New Haven Hospital, New Haven, CT*.

Background:

Delirium is a common acute disorder of cognitive function in older adults. Valproic acid (VPA) can help by acting on diverse biochemical pathways implicated in agitation and delirium development.

Case:

A 70-year-old female with early-onset Alzheimer's dementia with dependency on ADL's, hypertension, and diabetes was hospitalized for increased agitation. Diagnosed with E. coli UTI and treated with antibiotics.

Non-pharmacological approaches to delirium failed, leading to a 6-week medication trial including trazodone, risperidone, and a rivastigmine patch. Head imaging with CT and MRI revealed chronic ventricular volume loss. Eventually, VPA was started and showed amelioration in agitation and delirium after 2 weeks of titration.

Discussion:

Pharmacological interventions to mitigate agitation in delirium involve the use of antipsychotics, benzodiazepines, and sedatives, despite lacking approval from the US Food and Drug Administration (FDA) for this specific indication. Antipsychotics pose risks such as extrapyramidal symptoms, QTc prolongation, sedation, and carry a black-box warning for increased mortality in patients with dementia.

VPA, an FDA-approved antiepileptic and mood stabilizer, is employed off-label for agitation due to its minimal sedative effects. The pathophysiology of delirium is not fully understood, but elevated levels of glutamate and N-methyl-D-aspartate (NMDA) receptors are implicated. Therefore VPA, an NMDA receptor antagonist, is a potential adjunctive treatment. Retrospective studies demonstrate a reduction in hyperactive delirium in the ICU setting by day 3 when used adjunctively and by day 2 as monotherapy. With median VPA dose of 750 mg/day, no dose correlation to delirium resolution has been found. Notably, no mortality has been reported with VPA use in delirium. Additionally, the use of VPA allows for a reduction in the dose of other medications utilized to control hyperactive delirium. Although hyperammonemia and thrombocytopenia are infrequent side effects, ongoing re-evaluation of VPA's necessity is warranted. Some studies show comparable delirium outcomes with non-VPA medications. This case underscores the critical importance of a deliberate and individualized approach when navigating and managing behavioral

disturbances in delirium. Valproic acid could be a tolerable option for managing agitation and delirium in older adults, pending further validation through additional studies.

A24

“Expanding Diagnostic Perspectives: Investigating Non-UTI Factors in Nursing Home Residents with Altered Mental Status”

N. Nalajala, P. Mendiratta. Geriatrics, University of Arkansas for Medical Sciences, Little Rock, AR.

Background: Altered Mental Status (AMS) in nursing home residents is a multifaceted issue requiring a comprehensive diagnostic approach. While Urinary Tract Infections (UTIs) are commonly associated with AMS, an exclusive focus on UTIs may lead to overlooking alternative causes. This case emphasizes the importance of considering a broader spectrum of etiological factors in nursing home residents experiencing AMS, including volume depletion, constipation, skin breakdown, medication side effects, and other sources of infection such as respiratory or skin and soft tissue.

Case Report: A 75-year-old female with moderate-stage dementia, diabetes, and hypertension, residing in a long-term care facility, exhibited new onset confusion and slurring of speech. The nurse noted foul-smelling urine during Activities of Daily Living (ADL) care and sent a urine specimen for culture. The in-house physician, informed of the mental status changes, conducted an unremarkable clinical examination. The culture was positive for *Escherichia coli* and the patient received broad spectrum antibiotics. She however experienced an acute decline in baseline mental status and was subsequently diagnosed as having stroke. Patient was managed conservatively and was discharged for rehabilitation. She underwent dual antiplatelets and a per cutaneous endo gastrostomy tube was placed due to failed swallow test.

Conclusions: This case underscores the need to discuss asymptomatic bacteriuria (ASB) prevalence and its role with the care team, including nursing staff, caregivers, and family members. A premature diagnosis of UTI should be avoided, with consideration of other diagnostic possibilities. Important interventions such as physical examination, medication review, encouraging oral intake, and increased monitoring for new signs or symptoms should be interim plans before determining the necessity of a urine culture. Comprehensive assessment and collaboration among healthcare professionals are crucial for accurate diagnosis and appropriate management of AMS in nursing home residents.

A25

Pyogenic Liver Abscess in an Older Adult Receiving Monthly Iron Infusions

M. H. Bogin, P. Takahashi, A. Chandra. CIMGP, Mayo Clinic Minnesota, Rochester, MN.

Introduction:

Older adults commonly receive iron infusions for low iron states, such as chronic blood loss anemia and renal disease. Although immediate infusion reactions are well recognized, recent literature has suggested intravenous (IV) iron may increase the risk of infections, including bacteremia, due to increased levels of circulating free iron. Pyogenic liver abscesses (PLA) are often caused by bacteremia and are associated with a 20% mortality rate. Here we present a case of a patient regularly receiving iron transfusions who developed a hepatic abscess.

Case Description:

An 89-year-old female with active melanoma not on treatment and iron deficiency anemia with monthly iron infusions was brought to the emergency department for evaluation of altered mental status. She was hypotensive, and lactate was greater than 10 mg/dL. A CT demonstrated a large, hypoattenuating lesion in the right hepatic lobe, concerning for a hepatic abscess versus malignant mass. She was admitted to the medical intensive care unit and vancomycin

and piperacillin-tazobactam were initiated. Blood cultures grew *Fusobacterium* spp. Liver biopsy was positive for *Fusobacterium nucleatum* and negative for malignancy. No infectious source was identified. She was treated with a prolonged course of IV antibiotics, and she was dismissed to a skilled nursing facility.

Discussion:

Iron supplementation is common and has been associated with increased risk of infections. Patients with active infections should not receive iron supplementation and there is not strong evidence for the optimal time to restart therapy. Our patient received IV iron infusions and developed bacteremia from an unclear source complicated by a pyogenic liver abscess. Pyogenic liver abscesses are rare in the United States and are associated with high mortality; risk factors include older age, diabetes, solid-organ transplants, and active malignancy. Our patient’s greatest risk factor for PLA was her ongoing IV iron infusions, demonstrating the importance of judicious use of iron in those most at risk for infections.

A26

“Watch your back”: Unexplained change in mobility in a patient with dementia

K. Glerum,¹ B. Terry,¹ U. Choksey.^{1,2} 1. Section of Geriatrics, Yale New Haven Hospital, New Haven, CT; 2. Hospital Medicine, Yale New Haven Hospital, New Haven, CT.

Background: Vertebral compression fractures are a common clinical entity among older adults. However, these fractures are frequently overlooked as they can occur without an inciting trauma and are especially hard to diagnose in patients who are unable to articulate their symptoms.

Clinical Case: A 91-year old community-dwelling female living at home with 24/7 support, presented to the ED with decreased ambulation over one day. Her medical history includes vascular dementia, hypertension, and osteopenia. The patient was unable to provide a reliable history. Her caregiver reported no recent falls or traumas to explain the change in patient’s mobility. Her initial physical exam was unremarkable for any localizing musculoskeletal findings. Imaging revealed an acute compression fracture of the L1 vertebral body. She was treated with oral analgesics, thoracolumbar brace while out of bed and activity modification while inpatient. Her hospital course was complicated by hyperactive delirium requiring physical and chemical restraints. By day of discharge, her pain had improved to a level at which she could now move around with a walker and her delirium had resolved; she was discharged to a short-term rehab facility.

Discussion: Vertebral compression fractures are common, with roughly 700,000 Americans affected annually and 25% percent of post-menopausal women affected by a compression fracture in their lifetime. They can present as an acute, symptomatic fracture or as a chronic, incidental finding on imaging. Carefully examining the spine for mid-line point tenderness and obtaining a thoracolumbar radiograph are appropriate first steps in the diagnostic workup. As they have the potential to cause significant disability and morbidity, early diagnosis is key.

Conclusion: When caring for a geriatric population, it’s important to include acute compression fracture in the differential diagnosis of a sudden, unexplained decrease in mobility in patients with dementia.

A27

Semaglutide use in an older adult with severe dementia: Did we treat the patient or a number?

C. C. Ganta, R. Factora, L. Kim. Geriatrics, Cleveland Clinic, Cleveland, OH.

Background: Glucagon-like peptide-1 receptor agonists (GLP-1s) have become very popular for the management of diabetes and obesity. With their wide spread use, reports of previously unrecognized side effects and complications have been emerging, including

GLP-1 use associated with depression, delayed gastric emptying, and aspiration (1). We report a case of Semaglutide use in an older adult with uncontrolled diabetes and severe dementia which led to significantly decreased oral intake, weight loss and hospitalization for hypernatremia and acute kidney injury (AKI).

Clinical case: An 86-year-old female with a history of uncontrolled diabetes, hypertension, coronary artery disease and gradually worsening dementia requiring assistance from family for basic activities of daily living was started on Semaglutide by her endocrinologist, for glycemic control. Six months after initiation of the medication, she presented to the emergency room for evaluation of acute mental status and was found to have hypernatremia with AKI. Upon review of her chart, it was discovered that she had experienced significant anorexia and weight loss over the same period Semaglutide was used to achieve the desired glycemic control. She had lost 28 lbs. over a 6-month period. During the hospitalization, culprit medications that were potentially contributing to her presentation were stopped, including the Semaglutide. Along with her AKI and hypernatremia, her delirium gradually subsided.

Conclusion and discussion: While GLP-1's have revolutionized the treatment of diabetes and obesity; caution should be exercised in its use for older adults with dementia. Although they work well to improve glycemic control, side effects of appetite and weight loss need to be considered as potential risks that may outweigh its benefits as weight loss in older adults is associated with greater morbidity and mortality. Given the possibility of significant drug-disease interaction in older persons, consideration could be made to have GLP-1s included on the list of potentially inappropriate medications for older adults.

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A28

Preoperative Anticoagulation Management

A. Oyeyemi, S. Baharlou. *Brookdale Department of Geriatrics and Palliative Care, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background

Preoperative medical assessment of direct oral anticoagulant (DOAC) use requires clear communication with surgeons and evidence-based decisions about perioperative anticoagulation management. Here we examine a case of confusion regarding the preoperative management of anticoagulants.

Case Presentation

Ms. B is an 82-year-old female with a history of Afib (CHA2DS2-VASC score of 7) on Rivaroxaban, prior Left atrial appendage thrombus, coronary artery disease, obstructive sleep apnea, hypertension, prior transient ischemic attack, polymyalgia rheumatica and trigger finger who presented in clinic for preoperative medical clearance for trigger finger surgery. She discontinued her rivaroxaban 7 days prior to the procedure based on a generic instruction from surgeon's office indicating all anticoagulant medications should be stopped for 5-7 days prior to the procedure. Patient was seen for preoperative assessment with geriatrics and cardiology 2 days prior to the procedure and later underwent uncomplicated trigger finger surgery.

Later that night the patient began having severe bilateral lower extremity pain and weakness. She was brought by ambulance to the emergency room and found to have complete occlusion of her aorta and bilateral common iliac arteries. She underwent emergent surgical intervention, however developed stress cardiomyopathy and multiorgan failure in the setting of reperfusion syndrome and passed away.

Discussion

Assessing DOAC management prior to any procedure should consider patient's bleeding risk, procedure bleeding risk and type of anticoagulant, to develop patient-specific holding parameters. For this procedure with low bleeding risk, patient's moderate risk of bleeding and DOAC use, holding of anticoagulation closer to the 24 – 48 hours would have been recommended.¹

Conclusion

This case exemplifies why patients with complex multimorbidity require careful consideration of medication management, even for minor surgical procedure. To reduce the risk of poor outcomes, communication between PCPs and surgeons is an essential component in every geriatric patient's preoperative assessment, especially when there is consideration of anticoagulation management.

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A29

Forgetting Her Favorite Rock – A Case of Rapid Cognitive Decline

L. Attal, R. Atif. *Geriatrics, Baystate Medical Center, Springfield, MA.*

Background: Cerebral amyloid angiopathy-related inflammation (CAA-RI) is a rare subtype of CAA with immune-mediated inflammation around amyloid beta deposits in small cerebral vessels. We report a case of rapid cognitive decline in a teacher with CAA-RI.

CASE: A 74-year-old independent and articulate earth sciences teacher with hypertension, obesity and COVID-19 presented post-fall with confusion and paranoia. Imaging showed a new right frontal hypodensity with mass effect, midline shift, multifocal vasogenic edema and numerous microhemorrhages. CSF showed elevated protein; meningoencephalitis panel was negative; brain biopsy showed hypercellularity, reactive gliosis, and rare atypical nuclei, but no amyloid. She improved with a 6-week dexamethasone taper. After 3 months, she fell again and had generalized seizures. She had slurred speech and was more confused again. MRI showed new/recurrent areas of vasogenic edema and many acute infarcts. CT angiography ruled out vasculitis. She received 2nd course of IV steroids. She developed quadriparesis, and went to rehab, still delirious. She was admitted with agitation after 2 months. MRI showed improved edema and white matter lesions, but cognitive decline continued. She was able to recall her favorite rock on our first encounter but was nonverbal after 3 weeks. 3rd course of IV steroids and IVIG were ineffective. Subsequent MRI indicated occipital infarction, and EEG revealed status epilepticus. She ultimately passed away.

Discussion: Our patient tragically became bedbound and ADL-dependent in 5 months, and died within 8 months, highlighting the aggressive nature of CAA-RI. Clinical manifestations include cognitive decline, headaches, seizures, and focal neurological deficits with extensive vasogenic edema and microbleeds on imaging. CAA-RI imaging findings can be similar to posterior reversible encephalopathy syndrome, lymphoma, and ARIA (Amyloid Related Imaging Abnormalities), known sequelae of anti-amyloid monoclonal therapies. While brain biopsy is the gold standard, its invasiveness and the potential for false negatives necessitate careful deliberation. Empiric steroids or immunosuppressives are often tried, but most patients have poor prognosis.

Conclusion: CAA-RI should be considered in the differential for rapidly progressive dementia. Awareness among healthcare professionals and advancements in diagnostics may improve CAA-RI diagnosis, facilitating timely discussions on care goals and supporting patients and families.

A30

Rapid visual loss in a 75-year-old Army Veteran diagnosed with Cataracts

L. Gonzalez,^{1,2} T. A. Tyrell,^{3,2} M. Deepak,² R. Blondet,² M. Bharadwaj,² M. Silverman.² *1. Medical Education, Florida Atlantic University, Boca Raton, FL; 2. Geriatric Medicine Department, West Palm Beach, VA Community Living Center, West Palm Beach, FL; 3. Florida Atlantic University, Boca Raton, FL.*

A 75-year-old veteran with a history of arterial hypertension, benign prostatic hyperplasia, dyslipidemia, hearing loss, and aortic dissection presented with painless blurry vision in his left eye. The patient was referred to an ophthalmologist who diagnosed a Cataract and surgery was performed. Post-surgery, however, the blurring continued to worsen, eventually involving both eyes. The Veteran was referred to a university eye institute where he was found to have preserved pupillary responses and bilateral optic nerve atrophy, more prominent on the left. Laboratory studies, Imagen, and Temporal Biopsy failed to demonstrate a specific etiology. Genetic testing revealed a mitochondrial DNA mutation at locus 11778, diagnostic for Leber hereditary optic neuropathy (LHON). Idebenone was initiated and he was referred for blind rehabilitation. LHON is a rare mitochondrial disorder, typically presenting in young males in their twenties with progressive visual loss due to optic neuropathy. LHON was the first disease to be associated with mitochondrial DNA point mutation. It is maternally inherited. The Veteran discovered that two of his cousins lost their vision in their teens. Several cases have now been reported in older men in their 70s. This case demonstrates the importance of including LHON in the differential diagnosis of rapid vision loss in older men. By identifying this condition early on, unnecessary treatments can be avoided, and patient and interdisciplinary management can begin promptly.

A31

Effective Communication between Radiologist and SNFist is Key for Delivering Optimal Health Outcomes in Older Adults admitted to SNF.

M. Mahmadian, K. A. Moshiri. *Geriatrics, Eisenhower Health, Rancho Mirage, CA.*

Background:

Medical errors in radiology are common, with an estimated day-to-day rate of 3–5% of studies reported. Often in Skilled Nursing Facility (SNF), imaging studies are sent to a third-party source where the results are interpreted by an outside radiologist whose clinical interpretation of an image is based on a limited scope. We present a case in which communication with a radiologist enabled SNFist to prevent a frail vulnerable patient receiving unnecessary treatment and reducing risk of complications and hospital readmission.

Case:

84-year-old female with HTN, HLD, HF (NYHA IV), AFib, CKD3, and anemia was hospitalized for Acute Exacerbation of CHF and was discharged to SNF for rehab. **Meds:** Amiodarone, Dabigatran, Empagliflozin, Metoprolol, Pantoprazole, Simvastatin, Spironolactone. **Vitals:** WNL. **Labs:** at baseline, -ve for leukocytosis. **Physical Exam:** WNL except diffuse bibasilar rales on the lung exam. Patient's home Furosemide was resumed and chest x ray (CXR) was ordered. Radiologist's interpretation was left basilar pneumonia which did not correlated with patient's clinical picture. SNFist repeated the CXR and discussed with the radiologist patient's medical history and prior chest x ray findings indicative of chronic atelectasis/scarring on left lung base. Repeat CXR was interpreted as discoid atelectasis on the left lung base without pneumonia. Patient remained clinically stable during her SNF stay and was discharged home.

Discussion:

Medical errors, the third leading cause of patient mortality in the US, pose a significant concern. This patient would have consequently

received unnecessary broad antibiotic coverage for the wrong diagnosis of HAP with potential grave complications such as C.diff. Collaboration between healthcare professionals, such as SNFists and radiologists, is crucial. Detailed case discussions promote comprehensive assessments and broader differential diagnoses, reducing readmissions and unnecessary interventions and ultimately improving patients' health outcomes.

Learning Points:

Imaging plays an essential role in diagnostic workup, but the interpretation differs inter-individually with minor errors could lead to grave consequences.

Mitigating strategies such as direct communication with the radiologist by the referring physician to reduce the likelihood of errors and to recognize them before leading to harm would be paramount for optimal health outcomes.

A32

Atrial Myxoma: A tumor syndrome?

C. AGGARWAL, J. Wei, P. Mendiratta. *Geriatrics, University of Arkansas for Medical Sciences, Little Rock, AR.*

Background: Myxomas are the most prevalent benign mesenchymal tumors affecting the heart, predominantly found in individuals aged 30-40 years old, with a higher prevalence among females. While commonly located in the left atrium, their occurrence in atypical sites leads to diverse clinical presentations. Early identification and surgical intervention are crucial, as only a minority of patients remain asymptomatic. Notably, reported cases suggest a potential correlation between atrial myxomas and colonic polyps.

Case Overview: A 70-year-old African American female with an incidental cardiac murmur underwent diagnostic assessments, revealing a 1.1 x 1.2 cm right atrial myxoma. Although not experiencing myxoma-related symptoms, the patient had a history of treated colonic polyps. Preoperative imaging revealed additional findings. These included an indeterminate 2.5 cm nodule in the left adrenal gland, a 2.3 x 2.4 cm hypo-dense lesion in the left kidney, and a 2.5 x 2.5 cm fat density lesion in the head of the pancreas with internal thin septations. Challenges in visualizing freckles or brown spots due to a darker skin color were noted. Nevertheless, successful removal of the atrial myxoma was achieved within six months. In a follow-up visit, the patient reported a persistent right lower back soft tissue lesion for two years, occasionally causing pain, likely identified as a lipoma or neurofibroma.

Conclusion: Atrial myxomas, typically benign, require prompt diagnosis and management to avert complications. The presence of soft tissue tumors in diverse locations may signify syndromes such as the Carney complex. Physicians managing patients with colonic polyps and/or atrial myxomas should adopt a comprehensive approach, recognizing potential associations with broader syndromes.

A33

Avoiding Diagnostic Delay through Comprehensive Geriatric Assessment

A. Obaid, I. M. Dashkova, P. Solomon. *Geriatric Medicine, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY.*

Introduction:

Reliance on multiple specialists can precipitate a surge in diagnostic procedures and treatment delays. Comprehensive geriatric assessment can expedite diagnosis and treatment, significantly improving older adults' quality of life.

Case Summary:

A 78-year-old former journalist male presented to the hospital after a fall with functional deficits and gait impairment. An MRI revealed L4-L5 nerve root impingement, necessitating medical treatment. Before admission, he had been experiencing shaky hands for

2 months, attributed to nervousness and weakness. A post-discharge assessment by a primary geriatrician during subacute rehabilitation revealed resting and action tremors without rigidity in the extremities. Essential tremor was diagnosed, impacting daily activities such as writing and holding coffee. The primary team started propranolol 10 mg twice daily with modest improvement. Eventually, a neurology consultation a week later recommended a DAT scan with concern for Parkinson's. However, the patient declined additional imaging. Given continued tremors, primidone was added. Following a week of observation, the tremor demonstrated notable resolution. The patient noted improved quality of life, as he could eat breakfast with more independence and returned to his hobby of writing.

Discussion:

This case highlights the complexity of managing multiple comorbidities in older adults necessitating a tailored approach. The primary team's timely prescription of propranolol and primidone, guided by comprehensive geriatric assessment, expedited treatment and reduced the tremor's impact on the patient's daily life. Waiting for a neurology consultation or a DAT scan would have resulted in substantial delays. The patient's decision to decline the DAT scan reflects the challenges in balancing diagnostic thoroughness with patient preferences, emphasizing the need for shared decision-making. This approach in geriatric care prioritizes swift symptom relief through personalized treatment, valuing rapid clinical assessment over prolonged diagnostics. It underlines Geriatricians' approach to focus on What matters most to patients and improve quality of life.

Conclusion:

By prioritizing comprehensive geriatric assessment over prolonged reliance on specialists and diagnostics, geriatricians can optimize patient care and enhance overall well-being in older adults.

A34

Copper and zinc deficiency in geriatric patient with history of gastric sleeve surgery, pancytopenia and multifactorial weight loss
T. Kim. *Geriatric Medicine Fellowship, Johns Hopkins Medicine, Baltimore, MD.*

65 female with a history of gastric sleeve surgery, cognitive impairment, liver cirrhosis, hypothyroidism, gait disorder who was admitted to the skilled nursing facility after a hospitalization for fall which caused rib fractures, splenic laceration, SAH, scalp laceration and pulmonary contusion. She initially presented to the skilled nursing facility for rehabilitation but subsequently stayed for long term care because her family was unable to care for her at home. However, she began to experience an abrupt weight loss of lbs 25-35 lbs about 10 months after she was admitted. Weight at the time of admission was 170lbs after weight loss, she had lost an estimated 21% of her body weight. Initially, her weight loss was attributed to multifactorial reasons including variable PO intake, hepatic encephalopathy secondary to liver cirrhosis and progressive dementia. CT Scan performed revealed no significant findings other than known liver cirrhosis and splenomegaly. 8 months after admission, she became persistently pancytopenia and previously did not have a history of persistent anemia. We investigated other etiologies for weight loss including copper, zinc, ceruloplasmin, vitamin B12, methylmalonic acid, homocysteine and folic acids. All values were normal except for low copper, ceruloplasmin and zinc. We discussed with pharmacy and dietician regarding appropriate supplementation and started patient on PreserVision AREDS Oral Tablet and encouraged a diet rich in copper and zinc. After supplementation was initiated, the patient's weight had remained stable for 2 months and we are continuing to monitor her weight and CBC closely. This case emphasizes the importance of monitoring for other trace elements for patient with a history of weight loss surgery.

A35

Tricyclic Timeout: Tripping over amitriptyline
G. Gopi, C. Merrick, R. Atif, M. Brennan. *Baystate Medical Center, Springfield, MA.*

Background: It is vital to make efforts to overcome therapeutic inertia and feel empowered to deprescribe potentially harmful medications. We present a case of a patient on longstanding amitriptyline renewed by multiple providers, who went into cardiac arrest and needed pacemaker placement.

Case: A 74-year-old female with anxiety and hypertension presented to the hospital for epistaxis. Initial BP was 151/101, EKG showed sinus tachycardia with PAC's. The bleeding stopped, but after a few hours, telemetry showed bradycardia with 2:1 AV block, and she went into asystole. ROSC occurred after 90s of CPR. EKG showed narrow complex tachycardia and then new atrial fibrillation with prolonged QTc. Home medications were amitriptyline 10 mg BID, lorazepam 0.5 mg BID PRN, and atorvastatin. Echocardiogram revealed EF40-45%. Hemoglobin dropped from 12's to 9's, TSH was 0.87, with no other lab/imaging abnormalities. She had prior episodes of palpitations and syncope over the last decade which were attributed to anxiety. Previous cardiac workup was negative. Medical records included conflicting documentation on the indication for amitriptyline (enuresis vs anxiety), and prescriptions were simply refilled for years. She underwent pacemaker placement. Amitriptyline was stopped and duloxetine started before discharge. She ultimately converted to sinus rhythm.

Discussion: Approximately 30% of elderly patients' admissions stem from drug-related issues or drug toxicity. Amitriptyline, known for its anticholinergic properties and listed in the AGS Beer's Criteria, is linked to hypotension, cardiac abnormalities, arrhythmias, and heightened risk of sudden cardiac death. Our patient was taking it for decades "with unclear indication" per documentation. It was continued by primary care after the psychiatrist retired, due to perceived clinical stability, the presumption of appropriate indication, lack of access to history, and due to therapeutic inertia, without further assessment. While providers' concerns for anxiety exacerbation were valid, each medication should have been revisited regularly in the context of the patient's age and function.

Conclusion: Chronic medications like TCA's that may have been previously tolerated can become dangerous as patients age. Our patient's outpatient team desired to provide patient-centered care by renewing amitriptyline, but this case demonstrates the importance of providers proactively adjusting medication regimens before potential harms manifest themselves.

A36

Elderly-Onset Paroxysmal Kinesigenic Dyskinesia a Rare Cause of Frequent Falls in a Geriatric Patient
M. Mahmodian, K. A. Moshiri, G. Treves, M. Shaver. *Geriatric Medicine, Eisenhower Health, Rancho Mirage, CA.*

Background:

Elderly-Onset Paroxysmal Kinesigenic Dyskinesia (PKD), a rare movement disorder in the elderly, is characterized by intermittent and recurrent episodes of involuntary movements triggered by sudden movement and is associated with higher risk for falls and functional decline which could gravely impact the quality of life. Here, we present a case of elderly-onset PKD in an elderly female who presented with tremors, imbalance, and recurrent falls.

Case:

87-year-old female presented to a geriatric clinic with chronic bilateral hand tremors, gait imbalance, and recurrent falls. Family history was positive for tremors in her parents, siblings and children. Two DaTSCANs in 2018 and 2021 showed no evidence of Parkinson's Disease (PD). MRI of the head was negative for any acute intracranial abnormality. Dystonia Panel was negative. **Medications:** Meclizine, Aspirin, Vitamin D3. **Vitals:** Stable. **Physical exam:** A&Ox3. Bilateral upper extremity postural tremor, mild antalgic gait. **Labs:** WNL.

Patient was referred to Neurology and was diagnosed with PKD in view of her uncoordinated dyskinetic movements generated by sudden motion and the presence of concomitant tremors. Patient failed carbamazepine, pregabalin, and propranolol. With Fall preventions strategies including physical therapy (PT), vitamin D3 supplementation and adaptive equipment for tremors, patient's functional status improved and her fall incidence declined dramatically.

Discussion:

PKD is characterized by intermittent involuntary movements triggered by sudden movements, including chorea, dystonia, and athetosis. PKD, the most common paroxysmal movement disorder includes familial and sporadic forms. Elderly-onset PKD is extremely rare and usually tends to be misdiagnosed as other types of movement disorders. Falls which are the leading cause of injury-related death in the elderly are common and highlights the importance of diagnosis and management of geriatric-onset PKD. PKD may responds well to anticonvulsants as well as PT and balance training.

Learning Points:

Elderly-Onset PKD, a very rare movement disorder in the elderly, is associated with frequent falls and decline in functional status.

The diagnosis of Elderly-Onset PKD is mostly clinical and could be made based on historical features.

Anticonvulsants in concordance with PT and balance training could be a game changer.

A37

A Public Health Puzzle: Legionella pneumonia in a long-term care resident – is it an isolated case?

C. Perfect, S. Sata, N. Sharda. Duke University, Durham, NC.

Background: Legionella is an underdiagnosed cause of respiratory disease; approximately 2-9% of community acquired pneumonia cases worldwide are thought to be due to Legionella pneumophila (1). Legionella cases have significant implications for residents of healthcare facilities as they are associated with poorer outcomes and carry major public health ramifications. This case highlights the complexities around diagnosis and surveillance of Legionella in a multimorbid patient transitioning between healthcare facilities.

Case: A 90-year-old woman with heart failure (HF) with preserved ejection fraction (EF 50%), chronic kidney disease, and chronic colitis was transferred to the hospital from her skilled nursing facility (SNF) for evaluation of cough and recurrent diarrhea. This was her 4th hospitalization at the same facility in 6 months, most recently discharged 1 month prior after admission for HF. Her jugular venous pulse was elevated at 14 cm, weight was 10lbs above dry weight, sodium was 117, x-ray suggested perihilar edema, CT showed colonic inflammation, and C. difficile testing was negative. She was treated for HF and presumed hypervolemic hyponatremia without clinical improvement. On hospital day #4, Legionella urine antigen was obtained and was positive, triggering notification of the state health department. She was treated with antibiotics with improvement in sodium and resolution of cough and diarrhea.

This was considered a possible healthcare-associated Legionella case, and the SNF underwent enhanced surveillance for 2 months. No additional cases of Legionella were identified in the facility's residents, and Legionella was not isolated in the water supply at the SNF.

Discussion: Patients residing in healthcare facilities are often medically complex, which complicates the initial evaluation for acute illnesses, increases the risk of anchoring bias, and delays diagnosis and treatment. Legionella cases in healthcare facility residents carry major public health implications for all facilities involved in the patient's care. Therefore, clinicians caring for long-term care residents must maintain a high degree of suspicion for infectious disease culprits for the sake of individual patients and the overall public health of a vulnerable population.

References

1. Stout JE, Yu VL. Legionellosis. *N Engl J Med.* 1997;337(10):682-687. doi:10.1056/NEJM199709043371006

A38

The Case of a Missing Chest X-ray: Challenges of caring for older adults in rural areas

R. Saltness, C. O'Brien, W. Lyon. Geriatric and Palliative Medicine, Medical College of Wisconsin, Milwaukee, WI.

In the U.S., 4.4 million veterans return from military careers to live in rural communities. Prior studies have shown that compared to urban areas, rural communities have more elderly residents and fewer physician practices.

An 83-year-old male is seen in geriatric primary care clinic at an urban VAMC. His past medical history is significant for SIADH, prostate cancer in remission, and unspecified dermatitis. Although he lives in a rural area 300 miles from clinic, he chooses to have primary care there due to the presence of several specialists. He is a Vietnam Veteran. He was a nonsmoker. He presented to clinic in May 2023 with a chief complaint of cough over a five-month course. He denied chest pain and shortness of breath. It was worse when eating. In clinic, his vital signs were normal. Patient had diminished breath sounds throughout, no crackles, no wheezes. He appeared dyspneic with ambulation. Initial work-up was ordered including CBC, BMP, video swallow study, PFTs and a CXR. Labs were unremarkable. Video swallow study did not show dysphagia. PFTs were consistent with a restrictive defect. He did not complete the ordered CXR despite multiple follow-up calls from the medical team. He returned to clinic in August 2023 and had since stopped methotrexate per dermatology. His symptoms were unchanged. At that visit, CXR was performed and showed a large right pleural effusion with compressive atelectasis. Given his residence, the medical team unsuccessfully tried to arrange thoracentesis locally. Thoracentesis was ultimately performed at his primary VAMC, which yielded 2L of pleural fluid. Flow cytometry showed 5.8% population of small kappa-skewed B-Cells. Current differential is methotrexate toxicity vs. lymphoma vs. other malignancy. Evaluation remains ongoing, and he continues to travel to the VAMC several times a month for an increasing number of specialty visits.

Older patients are often medically complex and require frequent care. In rural areas, veterans and their caregivers may have greater difficulty accessing health care, as well as, fewer transportation options. As in our patient, this can contribute to prolonged time to diagnosis. For others, these factors may contribute to difficulty aging in place. Reducing barriers to health care for patients in rural areas is essential to address the needs for the growing geriatric population.

A39

When does a spoonful of sugar need the medicine to go down?

C. Y. Kim Freeman, E. Huston, D. Patel. Atrium Health, Charlotte, NC.

Background: Refeeding syndrome occurs when a malnourished individual receives nutrition after a delayed period and if performed too quickly can lead to serious clinical complications.

Close monitoring of glucose and electrolytes in a previously well-controlled diabetic, with poor nutrition, in a long-term care facility, is imperative, particularly, when enteric nutrition is initiated.

Case Report: A 55-year-old female with diet-controlled type 2 diabetes mellitus, gastroparesis, with a hemoglobin A1c of 4.9, congestive heart failure with preserved ejection fraction, history of stroke with dominant right spastic hemiparesis, chronic kidney disease stage 3, vascular dementia, hypertension, fibromyalgia and malnutrition was started on enteric feeds after PEG placement due to poor oral intake. Patient was noted to be lethargic and hypotensive several days after initiation of tube feeds. She was sent to the emergency department due to her lethargy and conditional change with critical lab results. Her blood glucose was 1529 with corrected sodium of 170. Imaging showed anasarca, third spacing, and constipation. The patient was admitted to the ICU, treated with continuous intravenous fluids and insulin with normalization of her glucose. Enteric feeds

were reinitiated at a slow hourly rate, then transitioned to bolus feeds along with insulin lispro and moderate dose corrective sliding scale. Her mentation improved throughout the hospital stay and she was discharged to her long-term care facility.

Conclusion: This case illustrates the importance of close and frequent monitoring of blood glucose, electrolytes, and clinical exams within the first days of refeeding, even in a previously well-controlled diabetic and especially if alterations in gastric motility such as gastroparesis are present. When initiating enteric feeds in the nursing home setting, we should adopt an algorithm to monitor blood tests to properly assess and act upon any abnormalities to aid in prevention of potentially unnecessary hospitalization.

References: Crook, M.A., Hally, V., Panteli, J.V., The Importance of Refeeding Syndrome. *Nutrition* 2001; 17 7/8

A40

Framework for the assessment of multimorbid older patients in emergency department: a qualitative case report

M. Khan,¹ H. DALIA,² M. Malone.³ 1. *Geriatric, MetroHealth Medical Center, Cleveland, OH*; 2. *Geriatrics Medicine, MetroHealth Medical Center, Cleveland, OH*; 3. *Geriatric, Aurora Health Care, Milwaukee, WI*.

Objective:

This care report proposes a framework for the assessment of older patients with multimorbidity presents in emergency department (ED).

Case:

This case study illustrates the implementation of guiding principles for the geriatric assessment in the ED. These guiding principles are also mentioned in Table-1¹.

A 79 year-old female presented to the ED with her son after having a fall in the setting of recent multiple fall history in past six months. She was living with her son and required assistance for basic self-cares with limited instrumental activities of daily living. Son was concerned for her safety and ability to be stay at home. However, the patient’s goal was to ambulate with a walker so she can volunteer at church.

Patient had a recent decline in cognitive function, mental health condition and functional status. She was having multimorbidity, more than ten chronic conditions. She was taking 18 scheduled medications with poor medication adherence and a recent change in medications.

Multidisciplinary team involved for the evaluation of vulnerability such as elder neglect and geriatric syndromes including frailty, polypharmacy, and cognitive impairment. After initial treatment response, we setup a coordinated care plan with patient’s preferences and goals to optimize adherence to essential pharmacological and nonpharmacological therapies.

Patient later discharged with appropriate care transition which includes home care services, and close follow up with geriatrician, geriatric pharmacist, home social worker for home safety evaluation.

Conclusion: This framework is intended to guide clinicians through the complex process of assessing multimorbid older patients which may improve health care and optimize outcomes.

References:

Patient-centered care for older adults with multiple chronic conditions: a stepwise approach from the AGS. *J Am Geriatr Soc.* 2012 Oct;60(10):1957-68.

Table-1: Assessment framework

<p>Discuss patient’s current concern with its time course. Obtain collateral from family or nursing home. Evaluate current medications and related interventions and patient’s adherence. Determine the baseline and current functional status, and current illness’ impact on it. Evaluate for worsening of underlying multiple medical conditions and iatrogenic complications. Evaluate for new geriatric syndromes such as delirium, and cognitive decline. Evaluate for elder abuse and self- neglect. Re- assess and re- examine at intervals. Evaluate patient’s responds to the initial treatment and communicate with the family. Develop care plans. Involve inter-disciplinary teams: Pharmacist / nursing / social worker/ case manager. Appropriate transition of care.</p>
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A41

Transitions of Care

M. Jugarin, J. Templeman. *University of California San Diego, La Jolla, CA.*

Background: Effective transitions of care have been shown to reduce costs to the healthcare system, reduce readmissions, and improve patient outcomes.(1) We report a case of a patient who experienced a rapid series of ED visits without effective communication with the patient and coordination between medical settings.

Case: 66-year-old male with atrial fibrillation on anticoagulation, hypertension, history of CVA with residual chronic right-sided hemiparesis, polysubstance use disorder, and congestive heart failure, found by EMS after neighbors called 911. Patient was found on the floor with hematoma to the forehead and pain in lower abdomen. It is unknown how long the patient was on the floor or if consciousness was lost. Patient stated that he had drunk a “fifth” of alcohol (~25.4 oz) as well as a 40 oz beer. Patient was admitted to the hospital and a geriatrics trauma service was consulted for assistance in medical optimization and delirium prevention.

Upon reviewing patient’s medical records, we found that the patient had five previous visits to different EDs in less than a month – all of them related to falling. Patient was also found to have expressive aphasia, questionable decision-making capacity, no support system, and a long history of poor medical adherence. It wasn’t until the fourth ED visit that social work was involved, and only on the sixth that a geriatrics trauma team was consulted.

Geriatrics trauma team recommended a full cognitive assessment, goals of care discussion, with discharge options to custodial care or skilled care, and close follow-ups with his primary care provider. Patient was discharged to a skilled nursing facility for continuing physical therapy.

Discussion: This case illustrates the importance of early geriatric consultation and interdisciplinary management of social and medically complex patients. Despite repeated visits to EDs, the patient did not receive a geriatric assessment until the sixth incident. The standardized interdisciplinary team approach of geriatrics consultation or a geriatric accredited ED may have helped reduce his risk of frequent hospital visits by addressing the multiple risk factors that were contributing to his recurrent falls.

References:

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A42

Tension hydrothorax in an octogenarian

B. A. Acevedo-Mendez,¹ Y. Ye,² N. Condiles.² 1. *Division of Geriatrics and Palliative Care, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY*; 2. *Division of Hospital Medicine, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY.*

Introduction:

Dyspnea is a common complaint for older adults arriving in the Emergency Department (ED). More often than not, findings on chest imaging require prompt intervention. We discuss a rare case of tension hydrothorax.

Case presentation:

An 84-year-old woman with cirrhosis presented to the ED with acute dyspnea for two days. On arrival vital signs were temperature of 98.7 Fahrenheit, blood pressure of 161/75, respiratory rate of 24 and blood oxygen saturation of 87% on room air. She was placed on supplemental oxygen for hypoxemia and had chest x-ray which showed a

large right pleural effusion with significant right sided passive atelectasis. She had decreased breath sounds on the right side. A CT Angio of the chest ruled out pulmonary embolism but confirmed a large right side pleural effusion causing mediastinal shift. Her hypoxemic respiratory distress worsened with a respiratory rate of 32 with saturation of 86% on 4 liters of nasal canula. She was transitioned to non-rebreather and then to high flow nasal cannula. Blood gas resulted in a pH 7.16, pO₂ of 69, pCO₂ of 38 with a lactate of 10.2. Pulmonary performed an ultrasound-guided thoracentesis with improvement of respiratory symptoms and hypoxia. Pleural fluid studies were consistent with transudative effusion. Analysis includes SAAG > 1.1 in pleural fluid, total protein in pleural fluid 1.7, consistent with hepatic hydrothorax (HH).

Discussion:

HH is a type of transudative pleural effusion, and it typically occurs in the right pleural space in cirrhotic patients with ascites. HH occurs in 5-15 percent of patients with cirrhosis, and it is a diagnosis of exclusion. The mechanism is poorly understood, but it is thought to result from passage of fluid from the peritoneal cavity to the pleural cavity via diaphragmatic defects. A tension hydrothorax is defined as a massive pleural effusion presenting with hemodynamic abnormalities secondary to mediastinal compression. Early detection and rapid intervention of these patients prevents cardiorespiratory collapse.

Conclusion:

Tension hydrothorax is a rare medical emergency that if left untreated can rapidly progress to cardiac arrest.

A43

Vertigo as an Isolated Presentation of Bow Hunter’s Syndrome: An Unusual Case

M. Ishaq, T. Kochar, R. Weinberger, E. Dzielak, N. Patel.
GERIATRIC MEDICINE, THE WRIGHT CENTER FOR GME, SCRANTON PA., Scranton, PA.

Introduction

Bow Hunter’s syndrome (BHS), or rotational vertebral artery occlusion, refers to symptomatic vertebrobasilar insufficiency associated with the head rotation. The most common presentations of this syndrome are positional vertigo, nausea, dysphagia, dysarthria, and syncope.

Here, we discuss an 88-year old male who presented with vertigo and, later on, was diagnosed with BHS.

Case description

An 88-year old male with a past medical history significant for hypertension, asthma, bilateral subdural hematoma, vitamin D deficiency and aortic stenosis presented to our clinic for evaluation following a third episode of vertigo. He had similar episodes twice in the past year, which were treated with meclizine. Physical examination, including the Dix-Hallpike test, was unremarkable. CBC, CMP and other basic laboratory workup were negative. Doppler ultrasound of the carotid arteries revealed less than 50% of the bilateral internal carotids and complete occlusion in the right vertebral artery. CTA of the neck showed absent enhancement of the right vertebral artery from C6 through C3 levels with the restoration of enhancement at the C2-3 level due to presence of collateral circulation.

CTA of the head showed intracranial atherosclerotic calcification. Dual antiplatelet therapy was considered; however, clopidogrel was not started due to past history of bilateral subdural hematomas requiring surgical evacuation. The patient was advised to continue the aspirin and statin therapy. We had also advised he see a vascular surgeon, to which the patient refused.

Discussion

BHS is a rare entity that manifests as vertebrobasilar insufficiency associated with head rotation. An isolated vertigo can be the only symptom of BHS syndrome. The common cause can be mechanical compression and vascular risk factors such as hypertension, diabetes, hyperlipidemia, coronary vascular disease and smoking. Management

of BHS includes both medical and surgical methods. In the absence of any compressing structure, it is imperative to treat the cardiovascular risk factors to prevent posterior circulation cerebrovascular accident.

A44

Primary Bronchogenic Adenocarcinoma with Sclerotic Bony Metastases in Down’s Syndrome

J. Nazroo,^{1,2} T. T. Suh.^{1,2} 1. Internal Medicine, University of Michigan, Ann Arbor, MI; 2. GRECC, Ann Arbor VA Hospital, Ann Arbor, MI.

Case:

A 69 year old male non-smoker with Down’s Syndrome (DS), T2DM, schizophrenia on aripiprazole, and colon polyps presented with back/hip pain, decreased appetite and unintentional weight loss >1 year. Axial plain films showed C3, C4, L2 sclerotic lesions suggesting Paget’s disease of the bone, but there was concern for colon cancer with his history of polyps. CT abdomen/pelvis showed many sclerotic lesions of the appendicular/axial skeleton, low attenuation lesions in the liver/spleen and mild prostatomegaly, suggesting diffuse metastatic disease of unknown primary. PSA was normal. ALP was elevated with isoenzymes primarily from bone. CEA was high, AFP undetectable, with FIT and Cologuard negative. Chest CT showed a LUL lobulated, spiculated non-calcified mass with adjacent mediastinal LN and sclerotic bone lesions. Whole Body PET showed LN, liver, left adrenal, spleen, colon, bone and cerebellar vermis uptake compatible with metastases. CT-Guided R iliac bone biopsy showed metastatic, bronchogenic non-small cell adenocarcinoma. Oncology diagnosed stage IVB lung adenocarcinoma. NGS panel showed he was not a systemic therapy candidate. Oncology recommended hospice, and he was enrolled.

Discussion:

Among bone metastasizing cancers, lung cancer is the third most common primary, occurring in 30-40% of cases. Patients with metastatic NSCLC commonly have symptoms of bone, liver, brain, adrenal gland and LN metastases, most often lytic/osteoclastic^{1,2}. Sclerotic/osteoblastic lesions are rare^{1,2}.

Primary lung cancer is rare in DS^{1,2}. Cytogenetic and molecular studies suggest that gene mapping to chromosome 21 in DS may protect against lung cancer². While sclerotic reactions in TKI treatment of lytic NSCLC metastases have been described, the mechanism of sclerotic NSCLC bone metastasis in DS without prior cancer is not well-understood. Further, his T2DM and chronic aripiprazole use would be expected to impair osteoblast activity, highlighting the incongruity of this case.

Conclusion:

Our case is a rare presentation of primary bronchogenic NSCLC with sclerotic metastatic bone lesions in a DS patient without prior malignancy and co-morbidities expected to impair osteoblast activity. Future focus on the presentation and clinical course of advanced cancer in older DS patients is needed.

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A45

Vertebral Osteophyte-Induced Dysphagia: An Uncommon Indication for a PEG

A. Flowers, M. Rau. New York University Grossman School of Medicine, New York, NY.

Introduction: Dysphagia poses a challenge in caring for patients with dementia, representing either a symptom of progressive disease or a sign of an alternate pathology. Identifying an etiology is critical as recommendations and treatments will differ, especially regarding percutaneous endoscopic gastrostomy (PEG) tube placement. For older adults with advanced dementia, PEG placement does not

improve survival, quality of life, or prevent aspiration pneumonia. We present a case involving a 93-year-old man with dementia and progressive dysphagia where workup revealed an unexpected culprit: a cervical vertebral osteophyte.

Case Description: A 93-year-old man with heart failure, chronic kidney disease, heart block with a pacemaker, dementia, and dysphagia was admitted to the hospital with 16 months of progressive dysphagia to both liquids and solids. Geriatrics was consulted for complex goals of care (GOC) to discuss PEG placement in a patient with dementia. Given the history, a swallowing evaluation was recommended and he underwent a videofluoroscopic swallowing study. This showed a large C3-6 osteophyte resulting in absent epiglottic inversion, episodes of nasopharyngeal reflux with thin liquids, and pharyngeal residue. PEG tube was recommended but the patient declined any invasive procedures. Given his GOC, dietary modifications were recommended including small, frequent meals with a minced and moist consistency.

Discussion: Vertebral osteophytes are common, affecting up to 30% of the older adult population, but rarely lead to dysphagia. When this happens, a globus sensation often occurs first, followed by dysphagia to solids then liquids, along with a gradual decline in patient's oral intake, weight, and nutritional status. Osteophyctomy can resolve the dysphagia but as an invasive surgery poses considerable risks. Placement of a PEG tube in this scenario is indicated as a bridge to surgery or to provide long term nutritional support.

In this case the first assumption was his dysphagia was from advancing dementia and PEG placement should not be recommended. Yet further imaging revealed a vertebral osteophyte as the source of his dysphagia. This patient declined invasive interventions such as PEG or osteophyctomy in alignment with his GOC, but his case shows the value of a thorough diagnostic approach including swallowing studies when evaluating for reversible causes of dysphagia in older adults with cognitive impairment.

A46

Delirium in pericarditis: an atypical presentation.

A. Rajpal, J. Drost, G. Ruff, A. Simmers. *Geriatric Medicine, Summa Health System, Akron, OH.*

Background

Patients with pericarditis typically present with sharp pleuritic chest pain that is positional. It is unusual for pericarditis to present with delirium. This case highlights a patient that presented with delirium as a consequence of pericarditis.

Case

An 80 year old female with history of knee replacement presented to the emergency department (ED) for weakness. During the ED evaluation, a urinalysis was positive for a urinary tract infection (UTI) and she was started on ceftriaxone. Patient did not have dysuria or urinary frequency. She was admitted to the hospital with sepsis in the setting of a UTI, which was thought to be the etiology of her weakness. The urine culture came back positive for E-coli >100,000 CFU. Patient's weakness was attributed to her questionable UTI. Geriatric medicine was consulted for functional decline. On exam, there was concern for a possible heart rub. ECG showed diffuse ST elevation, and a cardiac echo showed 1-2 cm pericardial effusion without evidence of tamponade. Cardiology was consulted and started colchicine. She was stabilized and subsequently discharged to SNF.

Three days post discharge, she presented to the ED again with a fall. She hit her head and was found to have slurred speech and altered mental status. In the ED, labs showed elevated troponin, lactic acid, and WBC. Chest x-ray showed increased density behind the heart. CT head, CT c-spine, and x-ray pelvis were normal. She was admitted for severe sepsis. Differential diagnosis included pneumonia and type 2 NSTEMI. She was started on piperacillin-tazobactam and vancomycin. She was found to have bilateral pleural effusions on subsequent imaging thought to be due to pericarditis. Cardiology started steroids

to address the pericarditis. Her mentation improved. Colchicine was stopped and steroids were continued. The pericarditis was attributed to a viral cause of unknown etiology.

Discussion

Delirium is present in up to one third of hospitalized patients. Typical causes of delirium include, but are not limited to, polypharmacy, infection, intoxication and withdrawal. There is little literature on how pericarditis can cause delirium. This case illustrates anchoring bias, as patient's symptoms were contributed to her asymptomatic bacteriuria. This case highlights the importance of broadening differential to include cardiac causes of delirium and the need for further studies to evaluate this causal relationship.

A47

Cutaneous T-Cell Lymphoma: An Unusual, Late-Onset and Aggressive Presentation

S. Bano, R. Morse, E. Zimmons. *Division of Geriatric Medicine, UMass Memorial Medical Center, Worcester, MA.*

Background

Cutaneous T-cell lymphoma (CTCL) is a group of rare disorders with myriad clinical presentations. These mimickers of benign skin diseases can be diagnostically challenging. The most common form, Mycosis Fungoides (MF), is marked by an indolent course with patches, plaques or tumors limited mostly to the truncal area. Here, we report a case of an older adult with a CTCL subtype which resembled MF immunohistochemically but had a markedly different presentation.

Case

A 99-year-old Caucasian woman with dementia presented from a long-term care facility with a "few months" history of a pink, scaly, pruritic rash on the face and trunk. Although there was a mild, transient improvement with trials of topical and oral steroids, the rash quickly spread to the extremities (40% body surface area), becoming ulcerated and painful. Skin biopsy specimens demonstrated lichenoid collections of atypical lymphocytes (small to medium-sized) in the superficial to mid dermis with epidermotropism. The atypical lymphocytes were positive for CD3, CD4, CD5, CD8 and negative for CD7, Langerin, CD34 and CD117. 40 – 50% of the atypical lymphocytes stained for CD30. These findings supported a diagnosis of MF. However, the rapid spread, ulceration and CD30 positivity raised concern for a more aggressive entity, such as a Peripheral T-Cell lymphoma with cutaneous involvement. Due to her advanced age and dementia, further diagnostic studies, such as a PET scan, were not obtained, while a palliative approach was pursued.

Discussion

CTCL is a chronic, relapsing disease which can be separated into four major groups: CD30+ lymphoproliferative diseases, MF/MF variants, Sezary syndrome and non-MF variants. Prognosis varies widely within each group and depends on the stage of the disease, making early detection crucial. Yet, diagnostic delay between initial symptoms and diagnosis can be frequent. Although staging was incomplete in this case, it was at least IIB – a poor prognosis. In such a late stage, and especially in this age group, treatment can be extremely challenging due to the high intensity of therapy and the resultant side effects.

Conclusion

This case demonstrates that CTCL can cause immense morbidity when associated with a later age of onset due to the limitations of current treatment. It highlights the need for fast and accurate diagnosis, if only to enable prognostication and appropriate palliation.

A48

Apathy in Dementia

O. Bolaji, K. Fung. *New Jersey Medical School Department of Medicine, Newark, NJ.*

Background: Apathy is a key component among behavioral and psychological symptoms of dementia (BPSD). Apathy is under-recognized, underestimated clinically. Apathy, a frequent, early, and persistent dementia symptom, correlates with faster cognitive and functional decline, decreased quality of life, increased mortality, and greater caregiver burden. Despite being common and disabling, it is seldom volunteered as a symptom by patients or caregivers. Raising awareness about apathy may help early detection of dementia and improve outcomes.

Case: A 74-year-old woman with dementia, heart failure, hypertension, and diabetes was admitted for altered mental status and agitation due to delirium from dehydration after a trip. She has a 2-year-history of progressive memory decline, falls, and increasing disinterest in activities, social interactions, and self-care. She is independent in activities of daily living but dependent on all instrumental tasks. MOCA score was 7. MRI of brain showed chronic cerebral small vessel disease and diffused volume loss. After treatment, her delirium resolved. The patient was discharged home.

The same night post-discharge, she was readmitted with severe apathy and agitation, displaying immobility (sitting on a sofa “all day”) and refusal to eat, talk, or interact. Additional work up had ruled out any new delirium. Cerebrospinal fluid analysis showed elevated p-tau and protein levels, otherwise unremarkable. Her aggression improved, but she remained apathetic. She was discharged to subacute rehabilitation.

Discussion: Delirium is strongly associated with long-term cognitive decline in dementia. This patient likely had a cognitive decline with worsening apathy after delirium recovery. Apathy, defined by reduction of goal-directed activity in behavior, cognition, emotion and social interaction. In this case, apathy was evident in the patient’s lack of self-care motivation, emotional dullness, and social disengagement. Apathy presents a major barrier to rehabilitation. Regular daily routine and frequent prompts to remind activities may reduce apathy. Stimulant may be helpful but convincing evidence is lacking. This case helps raise awareness of apathy. A prompt recognition of apathy may aid in early detection of dementia. Anticipation of worsening apathy post-delirium or in dementia progression may help patient and family outcomes.

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A49

Overlooked Diagnosis: Missed Foreign Body in an Older Patient’s Leg

K. Watthanasuntorn, J. Olson. *Geriatric, Rush University Medical Center, Chicago, IL.*

Background

Foreign bodies are found retained in 7-15% of wounds in the emergency room, and up to 38% of these are missed on initial evaluation, potentially leading to complications such as infection, inflammation, and loss of function¹.

Case description

An 88-year-old female with Parkinson’s disease, cognitive decline, cirrhosis status post liver transplant, and adrenal insufficiency presented to primary care with right calf pain. She resided in an assisted living facility. Two months ago, she developed pain and redness in her right calf. At urgent care, she was diagnosed with a right calf infection, likely caused by a bug bite, and received cephalexin. Three days later, she visited a clinic and denied any history of injury. The physical exam showed a bruise on her right leg. She was recommended to use ice and acetaminophen and referred to a dermatologist. Six weeks

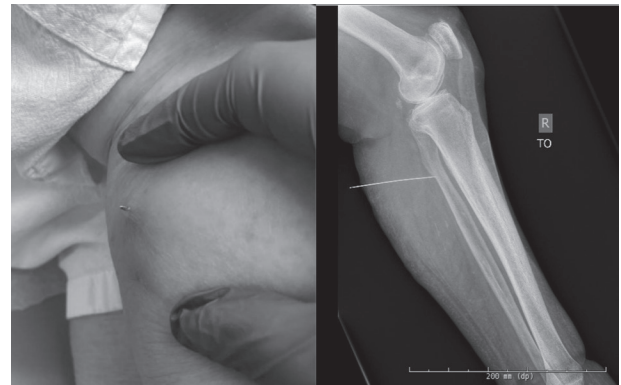
later, persistent calf pain led her back to the clinic. The physical exam showed overlying erythema with a metallic foreign object exposed from the right calf. An X-ray confirmed a needle-like object. A 6 cm sewing needle was removed revealing a mild amount of pus. She was discharged with cephalexin, bacitracin, and a Tdap vaccine.

Discussion

In older patients, particularly those with cognitive decline or who cannot provide a reliable medical history, the presence of a foreign body can easily be overlooked. This can lead to recurrent infections, a concern especially in patients on immunosuppressants, as in this case. A thorough physical examination and obtaining imaging, such as an X-ray, are crucial for accurate diagnosis.

Reference

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Left: Foreign body on exam
Right: X-ray of the right leg

A50

Anticoagulation in an older adult with a remote history of bariatric surgery

B. C. Sohn, M. H. Bogin, A. Stantz, P. Takahashi. *Community Internal Medicine, Mayo Clinic Minnesota, Rochester, MN.*

Background: To prevent stroke and systemic embolism in nonvalvular atrial fibrillation, either direct-acting oral anticoagulant (DOAC) or vitamin K antagonist (VKA) is prescribed. There is limited evidence about the efficacy and safety of chronic anticoagulation in patients with a remote history of bariatric surgery.

Case Presentation: A 65-year-old woman with a history of Roux-en-Y gastric bypass (RYGB) 18 years ago, hypertension, prediabetes, and body mass index of 30 kg/m² presented to clinic with dizziness. She reported epigastric burning pain that radiated to the chest associated with loss of appetite, diaphoresis, and dyspnea on exertion. She did not report fever, chills, hematochezia, melena, or sick contact. Blood pressure was 88/66 mm Hg while sitting. Radial pulse was fast, thready, and irregular. An electrocardiogram showed atrial fibrillation with rapid ventricular rate of 149 bpm. She was transferred to the ED and was discharged on diltiazem CD and apixaban.

Discussion: Bariatric surgery changes the gastrointestinal tract anatomy, body weight, and adipose tissue composition which alters oral medication pharmacokinetics. The effect of DOAC in older adults is even less clear with absorption changes following many years from RYGB. In 2021, the ISTH SSC Subcommittee on Control of Anticoagulation suggested not to use a DOAC for treatment or prevention of venous thromboembolism in the acute setting after bariatric surgery due to concerns of decreased absorption. In the early postsurgical phase, parenteral anticoagulation is recommended for a minimum of 4 weeks. Thereafter VKA or DOAC may be used, and if so, suggested obtaining a DOAC trough level to check for drug absorption and bioavailability.

Conclusion: Our patient underwent gastric bypass almost 20 years ago, hence was initiated on apixaban for atrial fibrillation, where most of the absorption occurs in the small bowel.

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A51

Hearing Aids Are Now Affordable, Improve Quality of Life and Adherence to Care

A. Khater, T. Dharmarajan. *Geriatric Medicine, Montefiore Medical Center, New York, NY.*

Background

Hearing loss is a common, challenging disorder in old patients. Over the past decades, improvements in hearing aid technology have led to improvements in the hearing rehabilitation process. There are presently varieties of affordable hearing aid devices that fit the requirements of many older people willing to use the aids. Yet the use of aids for the hearing impaired is remarkably low.

Case

An 83-year-old male has a history of hypertension, back pain, s/p pacemaker, and sleep apnea and has a significant hearing impairment (due to presbycusis). In the geriatric clinic, he was counseled on the importance of hearing evaluation and the use of aids, as his condition was worsening. He had mild to moderate bilateral sensorineural hearing loss. The patient now purchased bilateral hearing aids (via online shopping) and reported significant improvement in his hearing since he appeared happy. His communication with the physician was clearer, and adherence to care improved.

Discussion:

Hearing loss is a common challenging issue in older patients with a significant decline in the quality of daily activities, decline in moods, impaired adherence to care, falls and accidents, and possible deterioration in cognitive abilities. Yet, there are no screening guidelines for hearing. Further, older people are reluctant to try or use hearing aids for several reasons, including social stigma, difficulty fitting them, and changing batteries.

After the bill for over-the-counter hearing aids was signed into law in October 2022, a huge opportunity has enabled the marketing of hearing aids in various options at affordable costs. Our patient bought three pairs of hearing aids based on the low cost, so he had backup options in case he lost or misplaced them. The lower-cost aids provide reasonable improvement in hearing versus expensive devices. After hearing evaluation, and when unilateral, an ENT evaluation is indicated (to rule out cerumen middle ear disease). One can obtain a reasonable-cost device. After a trial, many, such as our patient, will be pleased and grateful for improved hearing and better quality of life. There is also a lower risk of falls and possibly lower cognitive decline in the years ahead.

Key points

- Screening older adults for hearing impairment is rewarding.
- Many of the hearing impaired are suitable for hearing aids.
- Effective communication will persuade a trial of hearing aids, with resultant better quality of life and other benefits.

A52

Beyond Patient-Centered Care

P. Dwivedi,¹ M. Robertson.² *1. Geriatrics, Johns Hopkins Medicine, Baltimore, MD; 2. Internal Medicine, Johns Hopkins, Baltimore, MD.*

Background

The number of individuals aged 65 and older is projected to double by the year 2050 and the proportion of 65 and older adults that are classified as being from diverse backgrounds is projected to grow from 20.7% in 2012 to 39.1% by 2050. To provide equitable and effective care for older adults from diverse backgrounds, we need to understand cultural variables that are beyond our own culture and comfort level. We present a patient story here discussing layers beyond an individual's medical history.

Patient Story

We conducted a new patient visit with a 78-year-old homebound woman with a history of seizures, insulin-dependent type 2 diabetes, CKD stage 4, hypertension prior resected brain tumor and frailty. Her medications included Amlodipine 5mg, Atenolol 50mg, Vitamin D 50,000, Levemir 16 units, Imodium 2mg, Keppra 250mg twice a day, and Zocor 40mg. She lived at home with her daughter, son-in-law and granddaughters. It was clear there was much to discuss from a geriatrics lens, however, with my own lived experience I first looked at this patient through a cultural lens. I saw an elderly baa (Indian grandmother) listening to religious prayers while eating her morning Indian snacks. The room smelled like incense, and she had a picture of her late husband at her bedside. She made minimal eye-contact and kept repeating "I am ready to go to God" in Gujarati during the remainder of the visit. While her habits and preferences may seem odd to many, in her culture, she is quite the normal grandmother - constantly listening to prayer music, eating her snacks, and lighting incense. Acknowledging her individuality and offering understanding of her cultural beliefs made it easier to further discuss medication management, culturally appropriate diet changes and what matters most with her daughter at bedside.

Discussion

Older adults from diverse backgrounds face many barriers. As clinicians, it is our responsibility to identify these cultural differences and respectfully incorporate them into treatment plans and clinical practices. We also need to identify our personal biases and perceptions to enhance our interpersonal skills and provide high-quality care that is beyond just calling an interpreter for language needs. Combining this with a general goal of diversifying the workforce will help increase patient satisfaction and build a more holistic and meaningful relationship with our patients.

A53

Healthcare Provider Feedback on Patient Participation in Multidisciplinary Surgical Decision-Making Meetings

T. S. Jones,^{1,2} T. Robinson,^{1,2} A. Lane,¹ C. Horney,^{1,2} M. Unruh,^{1,2} N. Brown,^{1,2} E. L. Jones,^{1,2} C. Levy,^{2,1} L. Mckown.¹ *1. VA Eastern Colorado Health Care System, Aurora, CO; 2. University of Colorado Anschutz Medical Campus School of Medicine, Aurora, CO.*

Background

Input from multiple specialties in the care of complex patients improves care coordination and survival. For our older patients undergoing high risk surgery, we implemented a multidisciplinary conference for surgical decision making in 2016. To create a patient-centric process, we started including patients and their caregivers in January 2022. Previous studies have shown that providers may be wary of patient participation in these types of meetings due to concern for limiting the decision-making process. Our hypothesis was that healthcare providers would have a positive experience with this model of care.

Methods

A pre-implementation and post-implementation survey was administered to all healthcare providers who participated in the multidisciplinary meetings from January to June 2022.

Results

Twenty-six providers responded to the pre-implementation survey. All participants agreed with positive benefits of multidisciplinary surgical decision-making meetings, however the majority 62% (16/26) perceived it as neither helping nor hurting the value of the meeting to include patients.

Twelve providers completed the post-implementation survey. The majority of the providers agreed that having the patient present enhanced discussion and the overall decision making of the team (Table 1).

Conclusion

Multidisciplinary surgical decision making represents a new model for improving patient centered care. Our pilot study demonstrates that healthcare providers agree that including the patient and their caregiver in the multidisciplinary meeting is beneficial for surgical decision-making. Our future studies will continue to define this process and develop a framework for implementation at other institutions.

Post-implementation Survey Results - Provider Perceptions of Patient Involvement



A54

Strong Silent Type: When Literacy Challenges Come to the Forefront after Total Laryngectomy

L. Magnabosco, V. Nguyen, T. Soones. MD Anderson Cancer Center, Houston, TX.

Introduction: Total laryngectomy, a treatment for some head and neck cancers, results in aphonia, which affects an individual’s ability to communicate. Hand gestures, writing, and typing are non-verbal forms of communication used immediately after surgery and may stand as the only means of communication if alaryngeal (electrolarynx, esophageal, or tracheoesophageal) speech options are not available. When literacy limits the use of written and typed modalities available to a post-laryngectomy patient, communication and healthcare challenges are amplified. This case sheds light on a challenge facing many American older adults: navigating a health system with difficulty writing.

Case Description: A 75-year-old male with past medical history of throat cancer status-post chemo and radiation complicated by the development of an esophageal stricture and new supraglottic laryngeal mass; severe protein calorie malnutrition; COPD; HTN; HLD; and carotid artery stenosis status-post stenting underwent total laryngectomy. While he clinically did well in the post-operative period, significant communication challenges arose. Unable to talk and being a solo-ager without family/friends at bedside, the patient was reliant on writing what he wished to communicate on a whiteboard. This was slower and sometimes frustrating to the patient. Spelling errors and limited written vocabulary impacted his ability to communicate his needs. Because of this, coordination of care for leaving the hospital was of utmost importance. Follow-up appointments with all specialties needed to be arranged because the patient lived out of town, had limited transportation, and would not be able to call to change or

cancel appointments. This team-based approach worked. The gentleman attended and was doing well at his post-operative follow-up visits.

Conclusion: This case illustrates how writing challenges can affect communication in healthcare. While these particular circumstances exaggerated how impaired literacy can affect health, this individual is not alone. The National Assessment of Adult Literacy (NAAL) reported 71% of older adults have literacy challenges (US Deptment of Education, 1996, “Literacy of Older Adults in America.”). This becomes a crucial consideration when verbal communication is impaired in any way. As clinicians caring for older adults, considering means for patient communication is as important as the way the medical team provides care and education.

A55

Revitalizing Independence; A Case of Total Femur Replacement in an 84-Year-Old

v. sirpal,¹ M. Gold,¹ R. Tyagi,¹ E. Cohen,² M. Singh.³ 1. Geriatric Medicine, Brown University Warren Alpert Medical School, Providence, RI; 2. Orthopedic, Brown University, Providence, RI; 3. Brown University, Providence, RI.

Introduction

Joint replacement (JR) is known to improve functional status and level of independence. Rates of JR and complications therefrom (infection, periprosthetic fractures and revisions) are rising given the increasing longevity of the population. Patients requiring repeat corrective procedures often develop impaired bone integrity. This limits further revision options and amputation is considered. An alternative, total femoral replacement (TFR), is a salvage procedure for oncologic or non-oncologic orthopedic conditions. We present a case of an octogenarian who underwent TFR after repeated reconstructive surgeries.

Case: An independent, community dwelling 84-year-old female with a history of breast cancer on anastrozole, underwent primary right total knee replacement. This was complicated by a right periprosthetic distal femur fracture repaired with open reduction and internal fixation (ORIF). Following a plate fracture, she had a second revision ORIF. Hardware failure ensued with repeated fracture and nonunion. Despite prior surgeries with extended rehabilitation stays, she had regained her independence each time. Due to compromised bone integrity this third episode of hardware failure was considered irreparable. Non-operative and operative options including TFR were discussed. Her goal of restoring function, prior successful rehabilitation, availability of a skilled surgical and inpatient team, led to the decision for TFR. The procedure was successfully completed and the patient discharged to rehabilitation without early complications.

Discussion: TFR is a rarely performed salvage procedure, offering an alternative to limb amputation. It has the advantage of immediate weight bearing and early mobilization. Limited evidence in the literature reports both improvement in symptoms and functional status but with high rates of postoperative infection and hardware instability following TFR. The decision-making process is nuanced, and discussions should balance the need, and potential for functional recovery against possible operative and perioperative complications. This case highlights two important tenets of geriatric medicine, what matters most to the patient and an interdisciplinary team approach to patient care. Care delivery thus guided, played a pivotal role in achieving a positive outcome for this patient.

A56

Profound Functional Impairment Due To Isolated Vascular Apathy

E. Gao,¹ M. C. Mecca.² 1. *Geriatrics, Yale School of Medicine, New Haven, CT*; 2. *Medicine, Yale School of Medicine, New Haven, CT*.

Background: Apathy is defined as a decrease in goal-directed behaviors and is observed in persons with cognitive impairment from multiple etiologies. We describe a patient with functional deficits out of proportion to cognitive testing in the setting of apathy.

Methods: a single case at the VA medical center was reviewed.

Case: Mr X is a 73 yo male veteran, high school graduate, with a history of hypertension, depression, polysubstance use disorder, and suspected cognitive impairment confounded by intermittent use of opioids. He lived with his brother until his brother's death in 2022, after which he moved to a transitional housing program. He was administratively discharged from his housing site for inappropriate behaviors, including public urination, and admitted to the VA hospital. He spent most of the day in bed, would ambulate only to the dining hall and to smoke. He required prompting to shower and groom himself and at times to attend to his continence care. Urine toxicology was negative. We confirmed with his housing site that he had not used substances in over 6 months. Geriatric Depression Scale was 0. He was evaluated by a psychiatrist who did not feel a psychiatric disorder was majorly contributing to his inability to care for himself. MOCA was 27/30, EXIT 6/30. No focal neurologic deficits were present except mild resting tremor. Brain MRI revealed parenchymal volume loss and non-acute bilateral thalamic infarcts as well as right ganglio-capsular and left basal ganglia lacunar infarcts. Although Mr. X has modest cognitive deficits on formal cognitive testing, his inability to care for himself seems to stem largely from apathy. His apathy is explained by the location of his prior strokes—specifically in the thalamus and basal ganglia. Apathy is also common in Alzheimers dementia. His cognitive impairment is likely vascular in etiology, with polysubstance use and Alzheimer disease as potential co-occurring etiologies. He was amenable to long-term care placement.

Discussion: Damage to the prefrontal cortex-basal ganglia circuits has been associated with abulia and deficits in willed behavior. This damage can occur through strokes or other neurodegenerative disorders. Although apathy is not directly tested for on most cognitive evaluations, it is important to recognize apathy as a potential contributor to functional disability.

A57

Managing behavioral and psychologic symptoms (BPSD) of dementia with a doll.

A. Ahmad,¹ C. Cavusoglu.² 1. *Internal Medicine and Geriatrics, Penn State Health, Hummelstown, PA*; 2. *Geriatric Medicine, Penn State Health Milton S Hershey Medical Center, Hershey, PA*.

Case:

84-year-old woman who developed dementia around 2010 was cared for at home by spouse. She was declining in cognition and function. She was hospitalized for an episode of noninfectious colitis in August 2021 after which she came to our facility for rehab. She transitioned to long term care as the husband was struggling with her advancing dementia and incontinence care. Her course at our facility was marked by behaviors of yelling, singing, yodeling and exit seeking. She was wheel chair bound with ability to self-propel. She was started on Quetiapine in fall 2021 and dose was subsequently titrated up to 50 mg bid. She continued to have worsening verbal outbursts and eventually started on ABH gel (Ativan, Benadryl and Haldol) scheduled and prn as she would often decline oral medication. Many non-pharmacological treatments were also tried such as scheduled toileting, busy blankets, coloring, music and stuffed animals. In August 2023, she was moved to a quieter hallway and given a doll. After the move and doll therapy her 2 years of verbal behaviors improved almost overnight. No other change was made in her medication.

Discussion:

Verbally disruptive behaviors among patients with dementia are common. About 50% of nursing home residents display at least one verbally disruptive behavior. These behaviors can include yelling, cursing, repeating words and phrases and sometimes moaning or whining. There are many non-pharmacological treatments to manage BPSD for e.g. music, aroma therapy, massage etc. Doll therapy (DT) is considered a useful tool to reduce BPSD in patients affected by dementia. The proposed mechanism of action of DT is possibly the attachment theory.

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A58

Pivotal Role of Behavioral Therapist in Hospitalized Geriatric Patients

S. S. Shan-Bala, S. Kim, B. Simmons. *Department of Medicine, Section of Geriatric Medicine, Inova, Falls Church, VA*.

Behavioral health therapists (BHT) play an important role in multidisciplinary teams. Approximately, 20% of the elderly have mental health issues and are less likely to seek help. BHTs have the potential to play a vital role in improving access to mental healthcare in the hospital and have an impact on better outcomes.

Case study

76-year-old woman with Afib and recurrent DVT was hospitalized from rehab facility for hypotension. Patient had recurrent UTI and anemia requiring multiple transfusions. During the hospitalization, her mood worsened, appeared depressed and stopped eating and drinking appropriately. Geriatrics was consulted for cognitive evaluation and assistance with goals of care discussion as she began expressing desire to start comfort measures. Per initial physician evaluation, she appeared discouraged for not making significant progress and worried about being a burden to her husband. She had been in and out of the hospital and rehab facilities multiple times that year resulting in prolonged stays. Being unable to return home for many months, the patient felt sad and hopeless. Patient appeared to have capacity to make her decisions regarding her goals of care(GOC).

Geriatric BHT requested to address depressed mood and therapy sessions helped patient's psychosocial needs and explore her GOC. Despite antibiotic therapy bacteremia worsened and pt was unable to tolerate anticoagulants for PE secondary to bleeding. Anemia did not improve despite multiple transfusions. Her chronic back pain became unbearable. Geriatric BHT continued to provide psychological support and assisted with goals of care discussion. Ultimately, she requested to start hospice and comfort measures and her mood was found to be stable. She felt that her quality of life was severely impaired and did not want any more treatments that would only prolong her suffering. Inpatient hospice was started, and she expired peacefully. During her course, geriatric BHT provided many essential services that otherwise would not have been available to the patient. Some of these included: reflective listening, empathy, reflection and validation of feelings, emotional support, and continuation of GOC discussions.

This case illustrates the benefit of having BHT in geriatrics as their services are valuable in providing psychological support and assisting patients with GOC discussion. Further research is needed to explore consistent presence of BHT with Geriatric team.

A59

An Unsuspected Cause of Fatigue.

H. DALIA, M. Khan. *Geriatrics Medicine, MetroHealth Medical Center, Cleveland, OH.*

Background:

Fatigue is a nonspecific symptom and one of the most common reasons for ER visit. Workup being quite extensive, often leads to missed diagnosis and under treatment, especially in elderly population.

Method:

Patient interviews, physical exams, and medical records review.

Case:

66 years old African American female comes into the ED with C/O excessive fatigue for 2 months. She feels drained of energy and has generalized itching. This is her forth ED visit in 6 months. PMHx: COPD, HTN, HLD, Previous Alcohol use disorder (Quit drinking for 3 months), Physical examination was unremarkable except tenderness all over the abdomen. Labs revealed AKI with Cr elevation, no leukocytosis/anemia. She is admitted for further workup. TSH, B12 wnl and Urine Toxicology negative. AST, ALT high and ALk phosphate elevated(170 u/L). Hepatits and HIV panel negative. ESR was 104 and ANA positive(>1:1280). Futher workup included autoimmune panel: Anti-Mitochondrial Ab (>1:40)109.4(H). USG of liver and gall bladder revealed no extrahepatic biliary ductal dilation. MRI abdomen was unremarkable. ANA screen had speckled cytoplasmic fluorescence. Patient diagnosed with Primary biliary Cholangitis and started on Urosdeoxycholic acid.

Conclusion:

Primary biliary cholangitis (PBC) is rare. Most patients (90 to 95 percent) are women, and most patients are diagnosed between the ages of 30 and 65 years (often in their 40s or 50s), reported prevalence of 19 to 402 cases per million persons. Patients with PBC need extensive follow up with liver test, bone mineral density test, malabsorption and Ultrasound with alph-feto protein test every 6 months to monitor for cirrhosis. Early detection can lead to better prognosis with treatment with Ursodeoxycholic acid. This disease mimic fraility in elderly and easily be un-diagnosed.

A60

Unforeseen Outcome of a Humeral Lytic Lesion: A Case Report of Renal Cell Carcinoma Recurrence

P. D. Gil de Rubio Cruz,^{1,3} D. Morales Torres.² *1. Internal Medicine, Universidad de Puerto Rico Escuela de Medicina, San Juan, PR; 2. Ashford Hospital, San Juan, PR; 3. Orthogeriatrics, University District Hospital, San Juan, PR.*

Background: Renal cell carcinoma has a recurrence rate of up to 30%. Comorbidities could complicate the process of achieving a diagnosis and add emotional stress.

Methods: Case report of a 75 y/o Hispanic male with coronary artery disease, hypertension, type 2 diabetes mellitus, chronic renal disease IV, and history of localized renal cell carcinoma s/p left radical nephrectomy 26 years ago, and prostate cancer s/p TURP, radiotherapy and hormone therapy 4 years ago. Since then, the patient was followed by Urology due to the presence of a mass on the right kidney, presumptively angiomyolipoma.

He complains of right arm progressive pain. X ray revealed a well-defined, lucent lesion on the distal humerus diaphysis. Treatment was provided for hyperparathyroidism secondary to vitamin D deficiency and advanced chronic renal disease, known to cause osteodystrophy. An MRI of the right arm revealed an aggressive lesion, highly suspicious for multiple myeloma or metastasis. Bone marrow biopsy ruled out multiple myeloma. A PET-CT scan revealed a right kidney mass with metastasis to the right adrenal gland, pulmonary nodules, and osseous lesions, largest in the right distal humerus where a soft tissue mass is present. Due to the history of renal cell carcinoma and prostate cancer, confirmation of the type of cancer was attempted with

a kidney mass biopsy, which was non-diagnostic. PSA was normal. The right humerus mass and lytic lesion progressed, and a pathologic fracture was imminent. For this reason, an intramedullary nail was placed, and a biopsy was obtained; it confirmed metastatic renal cell carcinoma. It was then, after 4 years, that immunotherapy started; 14 days later, the patient died.

Results: Unfortunately, renal cell carcinoma recurrence was not considered on this patient for the last 4 years, mostly because of misleading imaging findings, advanced renal disease limiting contrast administration, and the presence of comorbidities with similar clinical presentations. Further confirmatory workup was overwhelming and delayed treatment.

Conclusions: Due to the patient's remote history of renal cell carcinoma and its high recurrence rate, the initial approach should have been to suspect this disease, thus, saving time and distress for this patient, and possibly increasing the chances of survival.

A61

FlourishCare Model of Integrated Care: The Validation of the Flourish Index-Revised (FI-R)

A. Faul, P. Yankeelov, S. Cotton, B. Gordon. *University of Louisville Institute for Sustainable Health & Optimal Aging, Louisville, KY.*

Background and Objectives: This study validates the Flourish Index-Revised (FI-R), a tool evaluating whole health care models. The original Flourish Index (FI) was developed in 2018 (Blinded for Review, 2018) and has been refined to align with the whole health FlourishCare (FC)TM Model (Model) used for integrated patient care.

Research Design and Methods: The Model provides integrated biopsychosocial whole health care to older adults. The FI-R uses 25 quality-of-care indicators and 7 contextual community indicators. The FI-R was validated with Categorical Principal Components Analysis (CATPCA) using a sample of 949 patients 50+ who were mostly female (73%), Non-Hispanic White (70%), living in urban areas (90%), and married (29%). The mean age was 73.46 (SD=10.86) and mean years of education was 14.30 (SD=2.14).

Results: CATPCA showed a four-dimensional structure of biological, psychological, and two social determinants of health (SDOH) subdomains: health behaviors and community. Final selection of indicators was based on total variance accounted for >0.30, absolute values of item loadings >0.45, and not having cross loadings >0.45 on two factors. Internal consistency (Cronbach Alpha) for the determinants were: biological=0.75, psychological=0.76, SDOH: community=0.70, SDOH: Health Behaviors=0.50 and total FI-R=0.95. Sensitivity to change was shown for the total FI-R, psychological determinants, and SDOH:health behaviors but not for biological determinants.

Discussion and Implications: The validation of the FI-R shows promise for its usability to evaluate whole health models using existing measures in electronic health systems. More work is needed to improve the incorporation of SDOH:sociodemographics into the FI-R.

A62

Is the Use of Physical Activity More Effective than Medication in Treating Geriatric Depression?

J. Sagehorn, B. Trunnelle, I. Zekeria, K. Brockway. *University of Saint Augustine for Health Sciences - Dallas TX Campus, Irving, TX.*

Background: Depression is defined as a “serious mood disorder that affects how a person feels, thinks, and handles daily activities such as sleeping, eating, or working.” This is the most common psychological condition in those over 65 years of age. Pharmaceuticals are typically the first line of treatment for geriatric depression; however, exercise is consistently used as an adjunct intervention.

Methods: This review explored the effectiveness of prescribed exercise interventions for geriatric depression by looking at the following variables: feelings of anxiety or depression, depression

scale scores, self-esteem, BMI, perceived stress levels, and blood pressure. Databases used include PubMed and Google Scholar. Search terms included ‘geriatrics’, ‘depression’, ‘exercise’, and ‘treatment’. Inclusion criteria were individuals over 65, clinically diagnosed with depression, and a rating scale indicating depression. Exclusion criteria included cognitive or physical impairments limiting participation in physical activity.

Results: The three studies compared the effectiveness of treating geriatric depression with sertraline, exercise, or a sertraline/exercise combination. All programs were at least 16 weeks long. Physical interventions included aerobic conditioning, muscle strength, flexibility exercises, balance, and motor coordination. One specific study revealed that 45% of participants in the sertraline group, 73% in the sertraline plus non-progressive activity group, and 81% in the sertraline plus the progressive activity group achieved remission, with a shorter time of improvement seen in the sertraline plus non-progressive group than in the sertraline only group. All studies showed improved scores on their chosen depression rating scales. There was no clear differentiation on which mode of exercise was superior for achieving remission, and age groups did not impact outcomes.

Conclusions: Physical activity is effective for treating depression both alone and with medication in the population over 65 years old. More research is needed to support the use of exercise for the treatment of geriatric depression and to develop specific exercise recommendations.

A63

Development of an Age-Friendly Toolbox to Care for Hospitalized Older Veterans

T. Shahal,^{1,2} S. Correa,¹ C. Madrigal,¹ A. Smith,¹ J. Moyer,¹ K. Sullivan,¹ A. Brillhart,¹ A. Schwartz.^{1,2} *1. VA Boston Healthcare System, West Roxbury, MA; 2. Harvard Medical School, Boston, MA.*

Background:

Hospitalized older adults, especially those with delirium and dementia, are at risk for behavioral disturbances that can negatively affect their care and medical outcomes. Clinical staff have limited resources to cope with these behaviors, and there is a need for practical tools to prevent or mitigate behavioral challenges. The Age-Friendly (AF) Health Systems initiative uses the 4Ms (*Mentation, Mobility, Medication, and What Matters*) to improve care for older adults. We describe the development of an AF Toolbox (TB) to provide staff with opportunities to support hospitalized Veterans, particularly those with delirium and dementia.

Methods:

We conducted a literature review for evidence of items and interventions that promote patient engagement and reduce behavioral disturbances. Based on the review and clinical assessment, we created a list of physical and informational items related to the 4Ms to include in the TB. All items were assessed by Patient Safety and Infection Prevention assisted in the development of appropriate cleaning protocols. We created a binder of resources to help implement 4Ms care as well as pathways for replenishing the items. We identified frontline champions to assist with implementation. We piloted the TB and received feedback from nursing regarding indications for use, effectiveness, and additional item ideas.

Results:

Based on the data we collected, we created a five drawer AF TB. The top drawer included a binder/informational materials (i.e., clinical resources and medication safety) and the remaining drawers focused on the 4Ms, including items promoting sleep (white noise machine, eye covers, ear plugs), sensory/mobility objects (robotic pets, fidget boards, stress balls, building blocks), art (coloring items, construction kits), puzzles, books, magnifying glasses, and music (CD player, CDs, and pocket talkers).

Conclusions:

We developed an AF TB to bring practical tools to bedside staff caring for hospitalized older adults with the goal of increasing patient engagement and minimizing behavioral disturbances. Next steps include further evaluation of the AF TB including surveying staff on acceptability and feasibility, and collaboration with other AF efforts in our health system, to provide comprehensive, AF care for older adults.

A64 Encore Presentation

Home-Based Primary Care: Expecting Advanced Frailty

B. Cahill, J. Mutter. *University of Virginia School of Medicine, Charlottesville, VA.*

Introduction: Home based primary care (HBPC) has unique advantages for medically complex patients seeking access to primary care. While increasing patient access to care, it simultaneously decreases unnecessary care utilization. Many prior investigations of HBPC have enrolled patients with evidence of recent acute care utilization. Beyond “high-utilizers”, the characteristics of patients who could benefit from HBPC has not been fully elucidated. Virginia at Home (VaH), a HBPC program with a strong outpatient referral base, offers the opportunity to examine patients who are referred from the ambulatory setting.

Methods: This study made use of the clinical database maintained by the Virginia at Home program, including demographic, clinical and functional characteristics of enrolled patients. The database also captures pre- and post-enrollment ED and acute care utilization. One functional characteristic captured in the data is the Rockwood Clinical Frailty Scale (CFS) at the time of enrollment. The database also identified the referring provider for most of the enrolled patients, allowing referral delineation as either inpatient or ambulatory in origin. These two groups could then be examined independently. This project was deemed Program Development by the University of Virginia Intuitional Review Board.

Results: This project reviewed all past and current participants in the VaH program as of July 2022 (n=107). As with prior demonstrations of HBPC, post-enrollment utilization of the Emergency Department decreased by 48% percent and acute care admissions decreased by 45%. Patients were then categorized into inpatient versus ambulatory referral groups. The mean CFS among patients (n=11) referred by an inpatient provider was elevated at 6.5. Patients referred from the outpatient setting also demonstrated elevated frailty with a mean score of 5.9 (n=88). The remaining 8 patients did not have any identifiable referring provider.

Conclusion: CFS mean scores demonstrated advanced frailty at time of enrollment for VaH participants, regardless of the setting of the referring provider. Despite its ambulatory referral base, the VaH population demonstrates similar reductions in ED/acute care as prior HBPC demonstrations. Future investigations of HBPC should consider patients with advanced frailty regardless of recent acute care utilization. Further study is needed to see how patients in the ambulatory setting could best be identified for timely referral to HBPC.

A65

Health Coach Support Supplements Optimal Health Weight and Lifestyle (OHWL) Clinic Care for Older Adults with Obesity

K. Dhir,¹ N. Alexander,^{1,2} L. Petroff,^{1,2} S. Dewar.^{1,2} *1. Division of Geriatric and Palliative Medicine, University of Michigan, Ann Arbor, MI; 2. VA Ann Arbor Geriatric Research Education and Clinical Center, Ann Arbor, MI.*

Background: The prevalence of older adults with obesity is increasing and their care is complicated by multiple complex comorbidities and functional disability. We recently established the Optimal Health, Weight, and Lifestyle (OHWL) clinic to assist in management of older adults with obesity by addressing comorbid health conditions, physical function, diet and weight loss medications when appropriate.

In this pilot study, we added a health coach (HC), previously demonstrated to assist with weight loss, to facilitate adherence to treatment plans and address barriers.

Methods: OHWL clinic eligibility included age ≥ 60 , BMI ≥ 35 , able to ambulate with or without an assistive device, and at least 2 weight-related comorbidities. Via telephone visits, the HC helped to 1) establish and achieve OHWL patient-centered SMART goals and subgoals, usually focused on optimizing physical activity, nutrition, and weight control, and 2) integrate health professional recommendations (such as from physical therapy).

Results: Mean (SD) age and BMI of the first cohort of OHWL patients to work with the HC (n=7 women) were 74 (5) and 46 (6) respectively. Relevant medications included metformin in five patients. Nearly all patients had cardiovascular and osteoarthritis comorbidities. With support of the HC over the initial 8 week intervention period, patients successfully fulfilled at least one (if not more) subgoals in most SMART goal domains. Over an average of the first 14 weeks, patients were noted to have a mean 4.4% weight loss. Two patients decreased their HgbA1c by 1 or more points.

Conclusion: These early data show promise in combining OHWL clinic management with HC care to optimize health, weight and lifestyle in a medically complex older adult cohort with obesity. Longer term surveillance is planned as well as an eventual controlled study to compare OHWL care with usual care.

A66

Benefits of ORCAM, I Pad, and I Phone Technology for Veterans with Blindness /Low Vision in Older Adults.

T. A. Tyrell,^{1,2} L. Gonzalez,^{1,2} G. Lares,² R. Blondet,² M. Bharadwaj,² M. Silverman.² *1. Florida Atlantic University, Boca Raton, FL; 2. West Palm Beach Veterans Affairs Medical Center, West Palm Beach, FL.*

Background: Vision declines with aging and can lead to blindness and low vision affecting 16% or more of persons 80 years and older. Low vision and blindness can seriously impact day to day function and quality of life leading to increasing dependence and associated institutionalization. Technological advances such as the ORCAM, Iphone, and Ipad have the potential to compensate for the visual loss through technological advances to allow the individual to maintain his/her independence. ORCAM is a portable, visual and wearable system that clips on to the eyeglass frame and speaks into the ear. The Iphone and ORCAM can discuss text, identify store products and prices, read printed money, read books, and allow facial recognition. The Ipad verbally reads text and messages.

Method: The WPB VA Administration blind rehabilitation program is a 2-week course that trains the Veteran in independent use of these devices. The level of function and independence is determined before and after the educational curriculum using a modified Function Independence Measurement (FIM) Scale from 1 to 7 with 1 indicating independent functionality and 7 complete independence.

Results: Since 2015, the West Palm Beach Veterans Administration Blind Rehabilitation Center has trained 460 Veterans 60 years or older in the use of the ORCAM, I-phone or I-pad. All age groups between 60 and 95 have demonstrated an increase in the FIM score with the average improvement of approximately 3.75 with higher scores seen in the younger age groups. The feedback of the Veterans has been very positive.

Conclusion: Technology can positively impact the lives of older persons with blindness and low vision and can measurably improve their independence. The technology is provided at no cost to the Veteran but the ORCAM costs about \$4500 and the Iphone \$1100.

A67

“Thank you, Come Again... But With Your Meds This Time”

J. Clement, S. Shanmuganathan. *Geriatric Medicine, LSU Health New Orleans, New Orleans, LA.*

Medication adherence among the geriatric population is always challenging. Our project aims to assess the impact of a team based educational approach to help improve the accuracy of outpatient medication regimens recorded in the electronic medical record (EMR) of a rural geriatrics clinic in south Louisiana. By doing so, we hope to remove discrepancies, improve medication adherence, and help strengthen our physicians’ confidence in medical decision making.

We implemented a protocol to assess the accuracy of EMR listed medications that included a comprehensive medication review, the identification of any discrepancies and the potential barriers which led to them; all performed throughout individual patient encounters and interviews. The intervention focused on implementing an educational and reminder-based system with the goal of increasing the number of patients who bring their medications to every office visit to be cross-checked with the EMR. This protocol included scripted phone-call reminders from nursing staff, visual posters and literature in exam rooms, physician-led patient education, and closely monitored EMR documentation during transitions of care. Data on patient medication and EMR accuracy will again be collected post intervention to assess its impact.

We aim to significantly decrease the incidence of medication discrepancies and errors in the EMR by at least 25%, leading to a safer and more reliable medication management system so that physicians can make well-informed decisions. We also hope to enhance the patient’s understanding of their medication regimen, leading to increased adherence through education.

Our study underscores the importance of improving the accuracy of patient specific medication information shared in the EMR. The integration of a systematic educational process within our clinic will hopefully not only enhance patient safety and medication adherence, but also empower healthcare providers with up-to-date patient medication data. This project contributes valuable insights into the importance of proactive medication management strategies to help decrease medication errors in a vulnerable geriatric population.

A68

Meeting Care Needs: A Framework To Adapt a Geriatric Emergency Department for the Community Hospital

O. Ancheta,¹ S. Saxena,¹ A. Goykhman.² *1. Center for Geriatric Medicine, Cleveland Clinic, Cleveland, OH; 2. Emergency Services Institute, Cleveland Clinic, Cleveland, OH.*

Background:

Older adults are frequent utilizers of Emergency Department (ED) services. While geriatric emergency departments (GeriED) frequently initiate in larger tertiary care hospital settings, smaller community hospitals are often located in areas that provide care to large proportions of older adults who need a care pathway that utilizes the 4Ms. Here, we discuss our process of expanding GeriED services from a tertiary care hospital to a community hospital environment.

Methods:

Plan- The site chosen is a suburban/rural 126 bed hospital in Northeast Ohio as part of a hospital system that includes a tertiary care hospital with an established GeriED program. Rollout of the program included education by geriatricians to ED staff using the 4Ms framework: Mentation- delirium management, Medication- polypharmacy, Mobility- falls, Matters Most- disposition planning.

Do- Potential cases appropriate for geriatric evaluation were identified by ED providers and the patient was either evaluated by a geriatrician in the ED or as part of a rapid observation program.

Study- This pilot program was reviewed by stakeholders at weekly meetings that reviewed appropriateness of consults, volume of patients, and additional support services needs.

Act- GeriED program implementation was initiated on November 1, 2023.

Results:

Team members involved included ED providers (7 physicians, 4 NP/PA, 1 geriatric nurse champion, 1 case manager/social worker, 2 pharmacists), and 4 geriatricians (1 on-site on rotational basis) providing GeriED and hospital coverage. Overall, on-site geriatric consult volume increased by approximately 1-2 patients per day. ED provider challenges included identifying appropriate patients for geriatric involvement and geriatric medicine provider challenges included limited outpatient follow-up availability. Challenges were addressed through weekly discussions with key stakeholders utilizing the Plan-Do-Study-Act (PDSA) method.

Conclusions:

While the traditional ED structure may be ill-equipped to manage the unique challenges associated with care of older adults, leveraging existing resources, modifying workflows, and adding geriatric competencies has potential to enhance quality of care. This discussion highlights important challenges and provides a working framework on how to implement a GeriED program in a community hospital setting.

A69 Encore Presentation

Home Medication Reviews in Older Adults

S. Murphy, M. Soto, J. Severance, S. Quach. *University of North Texas Health Science Center, Fort Worth, TX.*

Background: More than 40% of older adults in the US are currently on 5 or more prescription medications, placing the geriatric population at greater risk of experiencing adverse effects and complications from polypharmacy. With our aging population, this poses a growing concern on how to best identify and avoid potential medication errors. Moreover, underserved communities are at an even higher risk of medication errors considering limited resources and education on safe medication use. **Methods:** In order to investigate the prevalence of medication errors and the outcomes of their resolutions in the community-dwelling and underserved older adult population of Tarrant County we conducted a retrospective study using the evidence-based HomeMeds program. This study included 2,254 participants enrolled in the Meals on Wheels program, with data collected from a healthcare providers between July 2019 to June 2022 through comprehensive medication reviews using the HomeMeds software. **Results:** Our results revealed that 81% of participants had at least one medication error (range: 1 to 25 errors), and 80% of these errors were resolved within 30 days. In addition, the resolution of medication errors significantly improved self-rated general health ($p < 0.001$) and 42% of participants felt they had a better understanding and more confidence in their medication knowledge. **Conclusion:** The findings here highlight the prevalence of medication errors in older adults and the importance of addressing polypharmacy, with the HomeMeds program proving effective in reducing medication errors and improving health-related quality of life. The study supports the need to develop more sustainable community programs, educational resources, and interprofessional collaborations to adequately manage medications and improve quality of life for the geriatric population.

A70

Impact of approach on the demographics of older women recruited for the MoveOnUp Study

U. U. Andy,¹ N. Koelper,¹ L. Arya,¹ D. Newman,¹ J. Wyman,² H. Klusaritz,¹ W. Walsh,³ S. Reaves,¹ R. Brown.¹ *1. University of Pennsylvania, Philadelphia, PA; 2. University of Minnesota, Minneapolis, MN; 3. Saint Joseph's University, Philadelphia, PA.*

Background: The MoveOnUp study is an ongoing randomized control trial assessing the efficacy of a home-based, multicomponent intervention (physical exercise, bladder training, home hazard assessment) on the reduction of falls and urinary incontinence(UI) in women aged 70+ years with urgency UI. Given historically limited inclusion of underrepresented populations in UI clinical trials, recruitment of a diverse cohort was a major goal. We hypothesize that a community-based recruitment approach (CBRA) would result in a more diverse cohort than a health-system-based recruitment approach (HSBRA).

Methods: The HSBRA approach includes provider referrals and placing study brochures in clinical practices at an urban academic medical center. In addition, the data analytics team provides a list of potential participants whom we contact via e-mail, telephone, or electronic medical record messenger program. The CBRA includes partnering with the Penn Bladder Health Network, a long-standing partnership between University of Pennsylvania faculty and staff and local community organizations i.e. senior and community centers, senior living facilities, and religious groups. Free educational sessions on bladder health are provided. Following prescreening and consent, demographic information and fall history is obtained. Demographics of participants across these two recruitment methods were compared using non-parametric tests.

Results: Between June 2022 and October 2023, 275 women were prescreened with 125 consented. Compared to participants recruited via the HSBRA, those recruited via the CBRA were more likely to come from underrepresented populations, have lower household incomes, and lower educational attainment (Table 1). There was no difference in fall history.

Conclusion: A community-based approach results in recruitment of a more diverse cohort underscoring the promise of this approach for recruitment of diverse older participants in UI clinical trials.

	Health system-based approach N=65	Community-based approach N=60	p-value
Age (median, interquartile range)	76 [74-81]	75 [72-78.5]	0.093
Race (n, %)			<0.001
Black or AA	13 (20)	36 (60)	
White	51 (78)	23 (38)	
Asian	0 (0)	1 (2)	
American Indian/Alaska Native Native Hawaiian/Pacific Islander	1 (2) 0 (0)	0 (0) 0 (0)	
Ethnicity (n, %)			0.245
Hispanic Non-Hispanic	3 (5) 62 (95)	0 (0) 60 (100)	
Income (estimated by residential ZIP code, in \$USD)			0.007
\$20,000 - \$40,000	13 (20)	16 (27)	
\$40,000 - \$60,000	3 (5)	14 (23)	
\$60,000 - \$80,000	5 (8)	7 (12)	
\$80,000 - \$100,000	19 (29)	13 (22)	
\$100,000+ Unknown	20 (31) 5 (8)	9 (15) 1 (2)	
Educational Attainment			
Less than high school	0 (0)	4 (7)	
High school diploma or GED	15 (23)	12 (20)	
Some college	9 (14)	8 (13)	
Bachelor's degree Post-baccalaureate degree or training Graduate degree	19 (29) 22 (34)	11 (18) 9 (15)	
Falls in the last 12months			0.795
Never	30 (46)	30 (51)	
Once Two or more	15 (23) 20 (31)	14 (24) 15 (25)	

A71

The Association of Egg Consumption with Heart Disease Risk Factors in the Context of Dietary Pattern

D. Kritz-Silverstein, B. Anuskiewicz. *School of Public Health, University of California San Diego, La Jolla, CA.*

Background: Previous studies examining the association of egg consumption with heart disease risk factors yield inconsistent results. However, no previous study examined this association within the

context of dietary pattern. The objectives of this study are to examine the longitudinal association of egg intake with total cholesterol (TC), low density and high density (LDL, HDL) lipoproteins, triglycerides and glucose in older men and women, and to determine whether associations vary with consumption of a high vs. low Mediterranean dietary pattern.

Methods: Participants were 572 men and 850 women (N=1422) from the Rancho Bernardo Study who had egg intake assessed at baseline in 1972-74, and attended a 1992-96 clinic visit when TC, LDL, HDL, triglycerides and glucose were measured in fasting blood samples. Dietary data, collected with a food frequency questionnaire, enabled calculation of the alternate Mediterranean diet (MED) score. Sex-specific regression analyses were used to examine covariate-adjusted associations of egg intake with heart disease risk factors, both before and after stratification by MED score.

Results: Age ranged from 50 to 97.9 with an average of 71.2 in men and 71.6 in women. Men had higher TC (p=0.004), lower HDL (p<0.01) and higher glucose (p=0.038) than women, and consumed more eggs/week (means 4.4 vs. 3.5, respectively, p<0.001). MED scores ranged from 0-9; low vs. high MED score was based on a median (=4) split. Overall, egg intake was not associated with TC, HDL, LDL, triglycerides or glucose in either men or women (ps>0.05). However, stratified analyses showed that among those with a high MED scores, egg intake was positively associated with HDL. Each egg consumed/week was associated with an increased HDL of .75 mm/dl (p=0.013) in men, and 0.54 mg/dl (p=0.048) in women. No associations of egg intake with other risk factors by MED score were observed.

Conclusions: Overall, egg intake is not associated with heart disease risk factors. However, the association of egg consumption with HDL varies by dietary pattern. Among those eating a healthier, more Mediterranean diet, higher egg consumption is associated with increased HDL levels.

A72

The Effect of Age on Breast Cancer Risk Perception

A. Hamparsumian,¹ S. Vangala,² N. S. Wenger,² K. Sepucha,³ L. Madlensky,⁴ W. a. Athena Investigators,⁵ L. Esserman,⁵ A. Naeim.² 1. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 2. University of California Los Angeles, Los Angeles, CA; 3. Massachusetts General Hospital, Boston, MA; 4. University of California San Diego, La Jolla, CA; 5. University of California San Francisco, San Francisco, CA.

The Women Informed to Screen Depending On Measures of risk (WISDOM) is a multicenter pragmatic randomized controlled trial and observational study comparing risk-based screening with annual screening. We investigate the influence of age on lifetime breast cancer risk perception in a cohort of women from the study. We conducted a sub-analysis of 9,041 women, ages 40-74 y.o., with no history of breast cancer. Participants self-rated their perceived lifetime breast cancer risk from 0% (no chance of developing breast cancer) to 100% (certainty of developing breast cancer). Objective 5-year risk of breast cancer was determined using the Breast Cancer Surveillance Consortium (BCSC) model. Chi-squared analysis and T-test were used to compare women younger than 60 y.o. with women 60 y.o. and over. Linear regression models to assess the influence of age on numerical risk, were adjusted for race/ethnicity, education level, marital status, type of insurance, family history of cancer, and BCSC risk (R² = 0.14). P-values less than 0.001 were considered statistically significant. Results: The cohort was comprised of 4793 women younger than 60 y.o., and 4248 women 60 y.o. and above, with significant differences in race/ethnicity, education level, marital status, type of insurance, family history of cancer, and BCSC risk. When evaluated in a multivariable model, the perceived numerical lifetime risk score was found to be 6.93 points lower in older individuals (Table, p<.001). The majority of women in this cohort assigned themselves an elevated lifetime risk

of breast cancer, regardless of age. However, older women estimated a lower numerical lifetime risk of breast cancer compared to younger women. Older women may perceive their risk to be lower as a result of lived years without breast cancer or based on their remaining life expectancy.

Table

Effect	Differences in Numerical Risk (95% CI)	p
Age 60+ vs. <60 years	-6.93 (-8.39, -5.46)	<0.001
Family Cancer History vs. None	18.42 (16.94, 19.90)	<0.001
Education (ref = college graduate or more)		<0.001
High school graduate or less	6.27 (2.69, 9.85)	<0.001
Some college or technical school	3.79 (2.19, 5.39)	<0.001
BCSC Risk Score (+1)	0.75 (0.08, 1.42)	0.028

A73

Accessible Adaptive Exercise and Ambulatory Disability

E. Calluther,¹ B. Ng,² D. Hovern,² L. R. Hersh.² 1. Physician Assistant Studies Program, Thomas Jefferson University, Philadelphia, PA; 2. Department of Family and Community Medicine, Thomas Jefferson University, Philadelphia, PA.

Background

Adults with ambulatory disability are at high risk for obesity (and sequelae) and are less likely to actualize the recommended 150 minutes of weekly physical activity than aged-matched adults without disability. Physical inactivity among older adults with ambulatory disability represents a lost opportunity to optimize function and quality of life (QOL). Adaptive exercise increases physical activity in adults with ambulatory disability. This study compares the regional presence of adaptive exercise programs within the United States to correlating populations of adults with ambulatory disability.

Methods

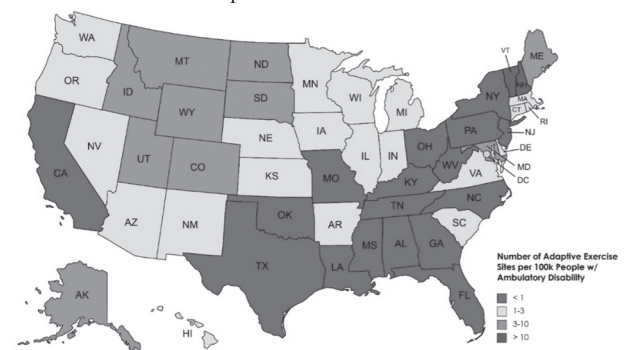
A database of adaptive exercise sites (n=268) was built via internet query. Population data were collected via the US Census Bureau. Statistical analysis (one-way ANOVA, Fisher's LSD) determined the significance of adaptive exercise programing deficits.

Results

~8.13% ± 1.65% of each state's population ≥ 18 years of age has an ambulatory disability. Each state averages 2.68 ± 3.81 sites per 100,000 people with an ambulatory disability.

Conclusions

Areas with high density of adults with ambulatory disability lack sufficient access to adaptive exercise. The proportion of state populations with ambulatory disability and availability of adaptive exercise sites were negatively correlated. Given the importance of physical activity to optimize function and QOL, this study highlights the need to increase access for adaptive exercise for older adults.



The ratio of adaptive exercise sites per 100,000 people with an ambulatory disability in each state

A74

Respiratory Virus Infection Post Covid-19 in Long-Term Care Facility.

R. Khoury, A. Gandhi, P. Patel, P. Gudaitis, D. Gudaitis. *Aculabs, Inc, East Brunswick, NJ.*

Context: Respiratory tract infection is one of the most common and fatal infection in the geriatric population. SARS-CoV-2, influenza A, influenza B, and RSV are the most commonly tested viruses. Since the beginning of the pandemic, SARS-CoV-2 testing became the routine testing for all respiratory illnesses; however, a surge of influenza and RSV in 2022 open the door again for more testing for influenza and RSV for patients with symptoms of respiratory infection.

Design: We did retrospective study for all the tests ordered for SARS-CoV-2, influenza, and RSV from season 21-22 and 22-23; all specimens were collected from residents in Long-term care facilities. The positivity rate was calculated for every virus and the percentage of patients with two and three viruses was calculated; the patients were separated further by age and gender. Statistical analyses were done using Analyse-it.

Results: A total of 190,576 specimens were done for SARS-CoV-2, 3,265 for influenza, and 2,270 samples for RSV. Women accounted for 56.4% of the samples tested. The positivity rate was higher for SARS-CoV-2 followed by influenza A and RSV; there was no positive sample for influenza B during the period tested. See table 1.

Conclusions: COVID-19 is still a major player in the respiratory infection in geriatric; however, the influenza A is on the rise and back to cause a threat to the facilities and require implementing a stricter infection control to limit the spreading. The increase in positivity in season 2022-2023 for SARS-CoV-2 was due to the fact that testing was done only on patients with symptoms and not screening for everyone; in addition to more relaxing in masking mandatory and less strict infection control protocol. Physician should be aware of the rise of RSV and influenza in the geriatric population and testing for COVID-19 should not be the only testing. Vaccinations (COVID-19, influenza, and RSV) and effective infection control programs should be in place to identify the risk factors and limit the spread of these viruses.

Table 1

	Season 2021-2022	Season 2022-2023
% Positive SARS-CoV-2	6.0%	12.9%
Total SARS-CoV-2 tested	158,608	31,968
% Positive Influenza A	5.8%	10.4%
% Positive Influenza B	0%	0%
Total Influenza tested	590	2,675
% positive RSV	2.3%	3.1%
Total RSV tested	257	2,013

A75

Associations of unintentional and intentional weight loss with pre-KT outcomes

J. Hong,¹ Y. Liu,¹ N. Ghildayal,¹ Y. Li,¹ S. G. Cockey,¹ B. Orandi,^{1,3} D. L. Segev,^{1,2} M. McAdams-DeMarco.^{1,2} *1. Department of Surgery, New York University Grossman School of Medicine, New York, NY; 2. Department of Population Health, New York University Grossman School of Medicine, New York, NY; 3. Department of Medicine, New York University Grossman School of Medicine, New York, NY.*

Background: Weight loss immediately prior to kidney transplant (KT), and specifically unintentional weight loss, is associated with worse post-KT outcomes. However, the impact of weight loss immediately prior to KT evaluation on pre-KT outcomes remains unclear. We tested whether weight change prior to KT evaluation, including intentional/unintentional weight loss, is associated with listing and waitlist mortality.

Methods: We conducted a prospective cohort study of adults who presented for KT evaluation at the Johns Hopkins Hospital from January 2009 to May 2022. We collected participant BMI one year before evaluation and at evaluation. Among 3,852 participants who

were evaluated for KT (age≥18 years), we estimated the association between weight change at evaluation with listing using Cox proportional hazards models. Among 2,378 participants (age≥18 years) who were listed for KT, we estimated the association between weight change and waitlist mortality using Fine and Gray competing risk models, with KT treated as a competing outcome.

Results: The mean weight change in the year prior to KT evaluation was -0.03% (SD=10%). After adjustment, weight gain (aHR: 1.03, 95%CI: 0.91-1.16), unintentional weight loss (aHR: 1.00, 95%CI: 0.90-1.12) and intentional weight loss (aHR: 0.93, 95% CI: 0.83-1.06) were not associated with chance of listing when compared with stable weight. After adjustment, both unintentional weight loss (aHR: 1.34, 95%CI: 1.04-1.72) and intentional weight loss (aHR: 1.37, 95%CI: 1.04-1.80) were associated with elevated risks of waitlist mortality when compared with stable weight; this association was not found with weight gain (aHR: 1.27, 95%CI: .94-1.72).

Conclusion: Weight loss immediately preceding KT evaluation, regardless of intentionality, may be an independent risk factor for waitlist mortality. Thus, any necessary weight loss in the pre-KT population should be guided by the close supervision of a medical professional.

A76

Association between Sleep Disorders and Rheumatoid Arthritis: A Population-based Cohort Study

R. Kumar,² E. Lovering,² C. Kodishala,² R. J. George,² S. J. Achenbach,³ D. Z. Carvalho,¹ C. S. Crowson,^{3,2} J. M. Davis III,³ E. Myasoedova.^{2,4} *1. Center for Sleep Medicine, Mayo Clinic Minnesota, Rochester, MN; 2. Division of Rheumatology, Mayo Clinic Minnesota, Rochester, MN; 3. Department of Quantitative Health Sciences, Mayo Clinic Minnesota, Rochester, MN.*

Background: Certain sleep disorders (SD) are more common among individuals with chronic inflammatory conditions, like Rheumatoid Arthritis (RA). The incidence of SD over time is also not well understood. Therefore, we aimed to examine the incidence of SD in individuals with RA vs. comparators without RA over time and by serologic status.

Methods: This retrospective cohort study focused on residents of a defined geographic area, aged 50 and older, who met the 1987 ACR criteria for incident RA between 1980 and 2014. Individuals with RA were matched 1:1 with non-RA comparators based on age, sex, and calendar year. All individuals were followed until death, migration, or December 31, 2021. SD were identified using the ICD 9/10-CM codes, and records were manually reviewed. The association between RA and SD was examined using Cox models, adjusting for age, sex, smoking status, and obesity.

Results: A total of 913 individuals diagnosed with RA were included, with a mean age of 65.2 (±10.1) years, 65% female, and 94% White. The mean body mass index was 28.7 (±6.3) kg/m², and 62% were seropositive for Rheumatoid Factor/Anti-Cyclic Citrullinated Peptide Antibody (RF/anti-CCP). At the time of the RA incidence/index date, there were no significant differences in the prevalence of any SD in RA individuals compared to non-RA controls (25% vs. 24%, respectively). During a median follow-up of 10.4 years in the RA cohort and 11.0 years in the non-RA cohort, SD developed in 234 individuals with and 206 without RA. RA individuals experienced an increased risk for any SD (hazard ratio (HR):1.30; 95% CI: 1.07-1.57). The most common types of SD were insomnia and OSA. In addition, the detection rate of SD increased over time in both cohorts.

Conclusion: Our study showed that RA individuals experience a significantly increased risk for any SD. The increased occurrence of SD likely reflects higher awareness and improved recognition of SD in more recent years. Further research is ongoing by our group to understand the underlying mechanisms for these associations to inform preventive and management options for SD in individuals with RA.

A77

Intersections of gender, race/ethnicity and age and the discontinuation of chronic high-risk medication use in US older adults

K. Jungo, J. Lauffenburger. *Division of Pharmacoepidemiology and Pharmacoeconomics, Brigham and Women's Hospital, Boston, MA.*

Background: The aim was to study the intersectionality of age, gender, and race/ethnicity and the likelihood of discontinuing high-risk medications.

Methods: In this retrospective cohort study, we identified adults aged ≥65 years enrolled in a national health insurer between 2017-2022 who were chronic users of 16 high-risk medication classes (≥90 days' supply & ≥2 fills). We measured age, gender, and race/ethnicity from enrollment files and created 16 different sociodemographic classifications of intersectionality. The outcome was the discontinuation of high-risk medication use (no fill after grace period of 90 days). Patients were followed until outcome occurrence, death, disenrollment, or end of data. We used Cox regression to estimate the association between the sociodemographic classifications and discontinuation.

Results: Across 1,337,312 patients (mean age: 73 years [SD:7], 74% White, 62% female), 18% discontinued their high-risk medication (mean follow-up: 666 days). Compared to White women aged 65-74 years as the referent, all other sociodemographic classifications except for White women aged ≥75 years, White men aged 64-75 years, and White and Black men aged ≥75 years were more likely to discontinue their high-risk medication.

Conclusions: These findings suggest the importance of exploring intersectionality and individualizing medication optimization approaches in older adults.

Results of Cox regression model (n=1,254,939)

Adjusted for baseline covariates

Category: Hazard ratio (95% confidence interval)

Reference: White, female, 65-74 years

Asian:

female, 65-74 years : 1.38 (1.32 to 1.44)
 female, ≥75 years : 1.20 (1.14 to 1.26)
 male, 65-74 years : 1.28 (1.22 to 1.35)
 male, ≥75 years : 1.19 (1.12 to 1.27)

Black:

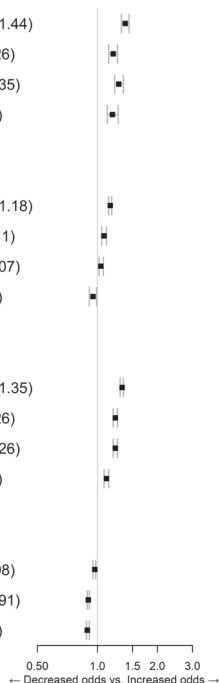
female, 65-74 years : 1.16 (1.14 to 1.18)
 female, ≥75 years : 1.08 (1.05 to 1.11)
 male, 65-74 years : 1.04 (1.02 to 1.07)
 male, ≥75 years : 0.95 (0.91 to 0.99)

Hispanic:

female, 65-74 years : 1.33 (1.30 to 1.35)
 female, ≥75 years : 1.23 (1.20 to 1.26)
 male, 65-74 years : 1.23 (1.20 to 1.26)
 male, ≥75 years : 1.11 (1.08 to 1.14)

White:

female, ≥75 years : 0.97 (0.95 to 0.98)
 male, 65-74 years : 0.90 (0.89 to 0.91)
 male, ≥75 years : 0.89 (0.88 to 0.91)



A78 Encore Presentation

Not So Cool; Impact of Baseline Hypothermia on the Severity of COVID-19 Infection

v. sirpal,¹ T. A. Bayer,¹ Z. Buchalski,² M. Gold,¹ M. Quarella,¹ P. Ghai,¹ J. chebl,³ R. Kaler,³ Y. Abul,¹ M. Singh,¹ S. Gravenstein,¹ S. Raza.¹
 1. Brown University, Providence, RI; 2. VAMC, Providence, RI; 3. RWMC, Providence, RI.

Background: Hypothermia is related to unfavorable outcomes after infections. While the link between hypothermia and COVID-19 severity in hospitals is studied, there's a gap regarding its impact in nursing home residents. We hypothesize that lower baseline temperatures will be associated with severe SARS-CoV-2 infection in older adults.

Method: Our retrospective cohort study included SARS-CoV-2 infected residents living in the Veterans Affairs (VA) Community Living Centers (CLC) from January 2021 to January 2023. We established the index date as the first date that returned diagnostic confirmation of SARS-CoV-2 infection. Baseline body temperature was determined by averaging first AM measurements over five consecutive days taken two weeks before the index date. We categorized residents into two temperature groups based on baseline temperature greater than or less than 36°F. We defined severe SARS-CoV-2 infection as those resulting in hospitalization within 14 days or mortality within 60 days. We report relative risk (RR) as the measure of association.

Results: Overall, our sample had 6047 residents, with a mean age (SD) 73.4 and 96.7%, (n=5841) males. 1.2% (n=73) exhibited baseline hypothermia compared to 98.79% (n=5974). Severe SARS-CoV-2 infection occurred in 47.5% (n=2873) of the overall sample. In the hypothermia group, 52.05% (n=38) developed severe SARS-CoV-2 compared to 47.46% (n=2835) in those without hypothermia, for an unadjusted RR of 1.09, 95% Confidence interval (0.87, 1.36) p value < 0.47.

Conclusion: Despite hypothesizing that lower baseline temperatures might be linked to severe outcomes, our findings did not support it. It is plausible that factors other than hypothermia, Like frailty, play a more substantial role in contributing to the severity of SARS-CoV-2 infection in nursing home residents. Notably, the prevalence of hypothermia in our sample was low. Future research exploring additional variables and potential interactions to elucidate the complex determinants of COVID-19 severity in this vulnerable population is needed.

A79

Spike in Baseline Temperature in Influenza and SARS-CoV-2 Infection in Long Term Care Veterans

M. Gold,¹ T. A. Bayer,^{1,2} Z. Buchalski,² v. sirpal,¹ P. Ghai,¹ M. Quarella,¹ J. Abi Chebl,³ R. Kaler,³ Y. Abul,¹ M. Singh,¹ S. Gravenstein,^{1,2} O. Radu.¹ *1. Geriatrics, Brown University, Providence, RI; 2. Center of Innovation, Providence VA Medical Center, Providence, RI; 3. Geriatrics, Roger Williams Medical Center, Providence, RI.*

Background: Fever is a known immunologic response to viral illnesses and has been used to identify those with active infection. Prior studies have shown that older adults infected with SARS-CoV-2 have less temperature rise than younger individuals. Few studies have reported the natural history of temperature spike to maximum (TS) in long term care (LTC) residents with SARS-CoV-2 or influenza, or its implications in early illness identification and opportunity for intervention. The purpose of this study is to describe the difference in TS for LTC residents with known infection with SARS-CoV-2 versus influenza.

Methods: A retrospective cohort study of LTC residents living in Veterans Affairs Community Living Centers with a positive test for SARS-CoV-2 or influenza between March 2020 and March 2023 were included. Individual baseline temperatures were calculated by averaging five measurements from two weeks before diagnosed infection. The mean TS was compared between SARS-CoV-2 and influenza infection.

Results: A total of 7251, mostly male (96.6%) Veterans, with a mean age of 73 years were included. We found that 7036 (97%) veterans tested positive for SARS-CoV-2 and 215 (3%) tested positive for influenza. For individuals infected with SARS-CoV-2 the mean TS was found to be 0.89°C (SD 0.70°C) while those infected with influenza had a mean increase of 1.09°C (SD 0.84°C) compared to baseline temperature.

Conclusions: In comparing SARS-CoV-2 and influenza infection, we found that TS was higher in influenza, although the absolute difference is small. This may be due to variability of the viruses' virulence, the timing of testing or confounders such as antipyretic medication use. The discrepancy between the number of positive tests for each infection may be explained by the increased testing for SARS-CoV-2 in asymptomatic LTC residents or the overall decrease in incidence of influenza during the SARS-CoV-2 pandemic. It is important to recognize however, that older adults' response to infection may be subtle with regard to TS, and fever should be used cautiously as an indicator of infection. Future research should investigate the impact of vaccines or the use of antiviral medications on TS.

A80

Pre-existing musculoskeletal autoimmune conditions in Veterans are associated with severe COVID-19

R. Kaler,¹ Z. Buchalski,² T. A. Bayer,³ J. Abi Chebl,¹ v. sirpal,³ M. Gold,³ P. Ghai,³ M. Quarella,³ A. Rajan,³ R. Tyagi,³ I. Neupane,³ S. Gravenstein,³ M. Singh.³ 1. *Division of Geriatric Medicine, Roger Williams Medical Center, Providence, RI*; 2. *VA Providence Healthcare System Center of Innovation in Long Term Services and Supports, Providence, RI*; 3. *Division of Geriatric and Palliative Medicine, Brown University Warren Alpert Medical School, Providence, RI*.

Background:

Autoimmunity is a state wherein the immune system mounts an attack against its own cells. Coronavirus 2019 is a viral disease that can affect multiple organ systems leading to septic shock and multi organ dysfunction. We hypothesized that the presence of pre-existing musculoskeletal autoimmune conditions (MAC) would be associated with a greater likelihood of developing severe COVID-19.

Methods:

Our retrospective cohort study included Veterans residing in Veteran Affairs (VA) Community Living Centers (CLC) from 01/2021-01/2023 with PCR confirmed SARS-CoV-2 infection. Using the first positive test date as the index, we looked back for the presence of MAC. Presence of an autoimmune ICD code as defined by Elixhausers comorbidity autoimmune condition variable in the 3 years prior to the index date defined our exposure. Severe SARS-CoV-2 was defined as hospitalization within 14 days or mortality within 60 days of the index date. We used relative risk (RR) as the measure of association.

Results:

In our sample of 3796 residents, mean(SD) age was 73.3 (12.6); and residents were predominantly male; 97.4% (n=3694) and white; 76.3% (n=2770). MAC was present in 30.6% (n=1161) of the population. Severe SARS-CoV-2 developed in 38.6% (n=731), of those with MAC versus 33.1% (n=631) of those without MAC; p<0.05. Using RR, we found a statistically significant increased risk of severe SARS-CoV-2 infection in those with MAC compared to those without MAC, unadjusted RR 1.17 95% CI (1.07, 1.27).

Conclusion:

Our study found an increased risk of severe SARS-CoV-2 infection in the presence of pre-existing musculoskeletal autoimmune conditions in CLC Veterans. This may reflect the effect of an amplified immune response to the infection related to the underlying inflammatory disease. Although the effects of potential confounders and covariates need to be accounted for, our result may inform preventive and proactive care for these vulnerable adults.

A81

Racial Differences in Access to Routine Healthcare During the Pandemic Among Older Adults with Serious Illness

A. Gangavati,¹ K. S. Johnson,² R. Rhodes,¹ A. Platt,² M. Olsen,² R. W. Durant.³ 1. *The University of Texas Southwestern Medical Center, Dallas, TX*; 2. *Duke University, Durham, NC*; 3. *The University of Alabama at Birmingham, Birmingham, AL*.

Background: During the COVID-19 pandemic, older adults, especially those already at risk for poorer health outcomes had difficulty accessing routine healthcare. This analysis examined racial differences in healthcare access during the pandemic among older adults with serious illness.

Methods: This analysis included survey data collected between Feb. 2021 and Sep. 2022 as part of EQUAL ACP, a multisite intervention trial to improve advance care planning among Black and White adults, ≥age 65, with serious illness (advanced heart, lung, kidney, liver disease, multimorbidity, cancer) in primary care clinics. We used descriptive statistics to summarize and compare (chi-squared tests) responses by race.

Results: Among 432 older adults, 56% (N=242) were Black. Mean age was 74.4 (SD=6.3) and 64.4% were female. Black participants were more likely to report economic difficulties (26.6% vs. 13.2%, p<.001) and fair/poor health (45.2% vs. 28.4%, p<.001), and White participants were more likely to report feeling isolated because of the pandemic (53.8% vs. 43.5%, p=0.04). The most common serious illnesses were diabetes with complications (47.7%) and cancer (12.5%). Over 80% in each racial group had visited their primary care clinics during the pandemic; 27.9% of Black and 25.4% of White participants reported their primary care physicians (PCP) had cancelled an appointment (p=0.58). Due to the pandemic, White adults trended more toward both reporting both difficulty getting routine medical care (30.6% vs. 22.6%, p = 0.074) and reporting having communicated with their PCPs by phone (63.0% vs. 57.3%, p=0.23) or video/telehealth visit (46% vs. 39.4%, p =0.17). Black adults reported lower rates of email communication with their healthcare providers (17.8% vs. 28.0%, p=0.01). Thirty percent from both racial groups had visited ED for non-COVID-19 related health issues since start of the pandemic.

Conclusions: Comparable proportions of Black and White older adults with serious illness reported difficulty getting routine medical care, having appointments cancelled by PCPs, conducting visits with PCPs remotely, and some reliance on the ED for non-COVID care. These results suggest similar challenges and access to care despite baseline differences in SES and self-rated health by race.

A82

Persistent Sleep Complaints and Hospitalization: Disparities Among Black and White Participants

M. Mati,¹ Y. Endeshaw.² 1. *Geriatric Medicine, Emory University, Atlanta, GA*; 2. *Department of Medicine, Morehouse School of Medicine, Atlanta, GA*.

Background

Previous studies have reported associations between sleep complaints and increased risk of hospitalization. However, the potential differences in this association among racial groups remain largely unexplored. This study aims to address this gap by examining the relationship between persistent sleep complaints and hospitalization, specifically focusing on disparities between Black and White participants.

Methods

Data were derived from the 2014, 2016 and 2018 waves of the Health and Retirement Research Study (HRS). Participants who reported their race as Black or White were included. Individuals who reported one or more sleep complaints in both 2014 and 2016 were classified as having persistent sleep complaints (PSC), while those

without sleep complaints in both waves as having no sleep complaints (NSC). Study outcome was reported hospitalization in 2018 wave. Logistic regression (LR) models, with PSC as the primary exposure and adjusting for demographic characteristics, chronic medical diseases, and previous hospitalization were employed. Effect modification by race was examined and predictive margins analysis was utilized to calculate probability of hospitalization.

Results

A total of 9463 participants, with mean (sd) age of 68.7 (9.7) years, were included. Among them, 59% were female, and 41% were male, with 21% identifying as Black and 79% as White. PSC was reported by 37% and hospitalization in the previous 2 years by 27%.

The odds of hospitalization for those with PSC was 1.25 (1.11-1.40), $p < .001$ with a significant effect modification by race ($p = .038$). Stratified analysis by race revealed odds ratio and (confidence interval) of 1.03 (0.87-1.20) for Blacks with NSC ($p = .71$), 1.28 (1.14-1.43) for Whites with PSC ($p = .001$), and 1.69 (1.41-2.03) for Blacks with PSC ($p < .001$). Probability of hospitalization for Black and White participants with NSC was 0.25 and 0.23 respectively, while for Black and White participants with PSC were 0.34 and 0.29.

Discussion

The results underscore a higher risk of hospitalization associated with PSC, particularly among Black participants. Further research is warranted to elucidate causal relationship and identify factors contributing to these observed disparities. Addressing these disparities is crucial for developing targeted interventions and improving health outcomes for diverse populations.

A83

Disparities in functional and physical limitations in older adults based on urbanicity using Health and Retirement Survey – A cross-sectional study

A. AlZahmi,¹ I. Cenzler,² C. Ankuda,³ K. Covinsky.² 1. *Institute of Public Health, United Arab Emirates University College of Medicine and Health Sciences, Al Ain, United Arab Emirates*; 2. *University of California San Francisco, San Francisco, CA*; 3. *Icahn School of Medicine at Mount Sinai Brookdale Department of Geriatrics and Palliative Medicine, New York, NY*.

Background: Health disparities in functional and physical activities among older adults based on urbanicity is a public health concern. This study examines disparities in functional and physical abilities among older adults residing in low (LU) vs high urbanicity (HU) areas in the United States.

Methods: A total of 8,259 participants aged ≥ 65 from 2018 Health and Retirement Study wave were analyzed. LU was identified using the Beale Rural-Urban Continuum Codes ($< 250,000$ population). Adjusted logistic regression assessed differences in Activities of Daily Living (ADL), Instrumental ADL (IADL), and physical activities, adjusting for age, gender, race/ethnicity, and education.

Results: Mean age was 74 (SD 7.6), with 55.3% women, 80.3% white and 9.1% black. Overall, 28.6% were living in LU. LU participants were more likely white (87.6% vs 77.4%, $p < .001$), and had less than high school education (19.9% vs. 15.7%, $p = 0.017$). They reported higher rates of high blood pressure (69.1% vs 66.3%, $p = 0.035$), lung disease (15.4% vs. 11.4%, $p < .001$) and dementia (8.8% vs. 6.1%, $p < .001$). LU residents were less physically active (59.8% vs 55.4%, $p = 0.021$). LU participants were more likely dependent in one or more ADLs (11.7% vs. 9.4%, $p = 0.001$) and IADLs (15.2% vs 13.2%, $p = 0.047$). LU residents had more difficulties in various physical activities, including walking one block (22.7% vs 17.9%, $p < .001$), getting up from a chair (43.1% vs 37.9%, $p = 0.002$) or climbing a flight of stair (26.4% vs 22.1%, $p < .001$).

Conclusion: Significant disparities in physical and functional abilities exist among older adults based on urbanicity, possibly emphasizing the differences in aging experience between the two settings.

Limited accessibility to caregiver support services in less urban areas amplifies the challenges associated with increased assistance needs. Addressing these differences is crucial for tailoring interventions and improving quality of life among older adults across different geographic areas.

A84

Which older veterans are at highest risk of prescribing cascades? A study of the gabapentinoid-loop diuretic cascade

M. Growdon,² B. Jing,² E. Morris,¹ W. Deardorff,² W. Boscardin,² K. Boockvar,³ M. Steinman.² 1. *Univ. of Florida, Gainesville, FL*; 2. *UCSF, San Francisco, CA*; 3. *Univ. of Alabama, Birmingham, AL*.

Background: Prescribing cascades, which occur when a medication causes adverse effects that are treated with a second medication, are important contributors to polypharmacy among older adults. Little is known about which older adults are most at risk of experiencing prescribing cascades. We explored those at highest risk of the gabapentinoid (including gabapentin and pregabalin)–loop diuretic (LD) prescribing cascade among older veterans.

Methods: Using VA and Medicare claims data (2010-2019), we performed a prescription sequence symmetry analysis (PSSA) to assess loop diuretic initiation before and after initiation of gabapentinoids among older veterans (≥ 66 years) without heart failure. To identify the cascade, we calculated the adjusted sequence ratio (aSR), which assesses the temporality of LD relative to gabapentinoid initiation. To explore high-risk groups, we used multivariable logistic regression with prescribing order modeled as a binary dependent variable and adjustment for patient/healthcare utilization factors. We calculated adjusted odds ratios (aORs), measuring the extent to which factors associated with one prescribing order vs another. As a secondary analysis, we performed a stratified PSSA by key factors.

Results: The cohort included 1,981 patients (mean age, 73 years; 97.5% male; 13% Black, 5% Hispanic, 80% White) and 1,599 patients who initiated LD within 6 months after and before initiating gabapentinoid, respectively. Patients in each group were similar across patient and health utilization factors. The aSR was 1.23 (95% CI, 1.13, 1.34), confirming the cascade's presence. People age ≥ 86 years were less likely to have the cascade (compared to 65-74 years; aOR 0.74, 95% CI: 0.56-0.96), and people taking ≥ 10 medications were more likely to have the cascade (compared to 0-4 drugs; aOR 1.39, 95% CI, 1.07-1.82). Stratified analyses revealed little variation in aSRs across variables including comorbidity burden and number of outpatient providers.

Conclusion: Among older adults, those who are younger and those taking many medications may be at highest risk of the gabapentinoid-LD cascade. As we did not identify strong predictors of this cascade, approaches to preventing and managing prescribing cascades should be widespread rather than focused on specific subgroups of older adults.

A85

Leveraging a claim-based frailty index with electronic health record data to predict adverse clinical outcomes among older adults with heart failure

M. Kwak,¹ C. Schaefer,¹ S. Fu,¹ Y. Kim,¹ A. Dhoble,¹ H. M. Holmes,¹ D. H. Kim.² 1. *The University of Texas Health Science Center at Houston, Houston, TX*; 2. *Hebrew SeniorLife, Boston, MA*.

Background

Frailty among older adults with heart failure (HF) is highly prevalent and associated with adverse clinical outcomes. Among many tools to identify frailty from administrative datasets, the Claim-based Frailty Index (CFI) was developed using Medicare claims data. It may be used as a score (0~1), or as categorical variables (< 0.15 robust, $0.15 \leq$ pre-frail < 0.25 , and > 0.25 frail). However, it is not validated

in electronic health record (EHR) data. We applied CFI to EHR and Medicare data and estimated the predictability of CFI for adverse clinical outcomes among older adults with HF.

Methods

We used 2017 IBM Explorers EHR and Medicare Fee-For-Service 5% sample data. The analyses were done separately for each dataset. The index visit was the earliest outpatient visit in 2017 with any HF diagnosis (I50.xx). We included those who were at least 65 years old. We assessed the percentages of those who had any adverse drug event (ADE)-related encounters, hospital admission, or HF-related admission, after 1 year. Then, we estimated the odds ratio (OR) of frailty for each outcome. Last, we calculated the area under the curve (AUC) of the frailty score to predict each outcome.

Results

A total of 52,295 patients from Explorers and 33,217 from Medicare were included. Using the CFI, 18.1% were frail from Explorers, and 42.4% from Medicare. From Explorers, 10.4% had ADE-related encounter, 41.9% had hospital admission, and 11.6% had HF-related admission, while from Medicare, they were 9.4%, 43.1% and 16.3%, respectively. The OR of frailty for ADE-related encounter, any hospital admission, or any HF-related admission from Explorers were 2.7 (95% Confidence Interval 2.4-3.1), 4.2 (3.9-4.6), or 2.9 (2.6-3.4), while they were 2.0 (1.6-2.45), 2.7 (2.4-3.0), or 2.4 (1.9-2.9) from Medicare. The AUC of frailty score for ADE-related encounter, hospital admission, or HF-related admission from Explorers were 0.64, 0.67, or 0.64, while they were 0.60, 0.63, or 0.61 from Medicare.

Conclusion

When the CFI was applied to structure EHR data, there were lower rates of frailty, but it has a potentially greater predictive ability to detect adverse outcomes with a higher OR than in Medicare data.

A86

Detecting Changes in Old Age Cognition Over Time: Looking Beyond Mean Scores

A. Rotstein, *Gerontology, University of Haifa Faculty of Social Welfare and Health Sciences, Haifa, Israel.*

Background: Understanding the cognitive changes that occur with normal aging is crucial to distinguishing between normal and pathological cognitive aging and is vital to understanding the experience of normal aging. This study describes and displays the cognitive changes observed in normal aging based on a novel statistical method called psychometric network analysis. This method looks beyond mean scores, as it computes and innovatively displays the structure of cognitive functioning.

Methods: Data was extracted from the Irish Longitudinal Study on Ageing, a large-scale, nationally representative, longitudinal study on aging. The Mini-Mental State Examination was administered twice to a nationally representative sample of older adults in Ireland (2012-2013: N=7,207; 2016: N=5715). Binary psychometric network analysis was computed on Mini-Mental State Examination scores at each point in time to identify and display the structure of cognitive functioning. Network differences in the associations' structure, strength, and magnitude were examined.

Results: At both time points, the Mini-Mental State Examination network structure clustered into a single cognitive functioning community structure with orientation items identified as most central. While the magnitude of the positive associations between the cognitive functioning items remained time-invariant, the average magnitude of the negative associations increased over time [$t(65.15) = 3.78, p < 0.001$; time 1: $M = -0.59, SD = 0.58$; time 2: $M = -1.65, SD = 1.97$] as did their percentage.

Conclusions: The Mini-Mental State Examination had a network structure of a general measure for cognitive functioning, shown to be stable through four years. Network changes that may reflect cognitive

aging were identified with time. The main structural changes were evident in network strength and the magnitude of the negative associations between the different cognitive components. The negative associations between cognitive components that emerged with aging may be explained by compensation processes that help counteract age-related neurocognitive deficits. These could not have been detected with mean scores.

A87

Among Patients With HFpEF, SGLT2i Is Underutilized Significantly in Patients With Lower BMI and Diastolic Blood Pressure

Y. Kim, J. Mir, *Internal Medicine, Boston University, Boston, MA.*

Despite evidence that guideline-directed medical therapy (GDMT) improves outcomes in patients with heart failure (HF), many patients have been undertreated. This retrospective study estimated the prevalence of GDMT in community-dwelling patients with HF with preserved ejection fraction (HFpEF) at an urban community health center and evaluated the potential reasons for undertreatment in HFpEF patients.

In this study, we defined GDMT as patients with HFpEF taking SGLT2i, given the class of recommendation (2b). We reviewed medical records of patients aged ≥ 20 with a diagnosis of heart failure (ICD code I50.9), HFpEF (I50.30), or chronic diastolic heart failure (I50.32) who have been seen for the last three years at the clinic and still alive. The study protocol included sociodemographic data, body mass index (BMI), systolic and diastolic blood pressure (SBP, DBP), creatinine clearance (CrCL), LDL, A1c, comorbidities including hypertension (HTN), diabetes (DM), hyperlipidemia (HLD), smoking status, and patient portal status.

One hundred forty patients were identified, and sixty-four patients were excluded because of low EF ($< 50\%$) or unavailable cardiac imaging or laboratory results supporting a clinical diagnosis of HFpEF. A total of 76 patients (average age (AA) 73.2 ± 13.2 , Male (M) 42%, Female (F) 58%) were included in this study. Among them, SGLT2i was contraindicated in 15 patients (AA 76.2 ± 11.3 , M27%, F73%) due to CKD or side effects. Twenty-one patients (AA 70 ± 12.4 , M62%, F38%) were taking SGLT2i, and 40 (AA 73.8 ± 14.3 , M37%, F63%) were not taking SGLT2i. Those not on SGLT2i had significantly lower BMI (29.96 vs. $35.68, P=0.0056$) and DBP (71.3 vs. $80.14, P=0.007$) compared to those on SGLT2i. The patients not taking SGLT2i had lower A1c and higher LDL and CrCL. Their SBP was similar to the SBP of the SGLT2i group. The prevalence of HLD and DM was lower in the non-SGLT2i group. However, the prevalence of HTN was higher in this group. The patients in this group were also less likely to use the patient portal and take statin. In addition, they were likely women, older, non-English speakers, Latinx, and people of color.

Many patients with HFpEF (65%) have been undertreated. This study showed that SGLT2i was underutilized significantly in patients with lower BMI and DBP. These patients were less likely to have DM and HLD. These results suggest that among patients with HFpEF, GDMT is less likely to be used in patients with fewer or no comorbidity.

A88

Exploring Public Awareness and Perspectives on Balance and Falls

S. Tee,¹ P. Calvachi,¹ A. Ganapathy,¹ A. Knauer,¹ K. Brezoczky,¹ C. Rovzar,¹ E. Phelan,² D. Kado.¹ *1. Stanford University, Stanford, CA; 2. University of Washington, Seattle, WA.*

Background: With an aging population, falls are a major public health problem. Although there are proven effective fall prevention strategies, they remain underutilized, highlighting the need for increased awareness and access to interventions that decrease falls associated morbidity and mortality. Public knowledge and perceptions regarding balance and falls remain understudied.

Methods: To study adult public perceptions of balance and falls, we conducted a one-day internet survey of 1,009 adults >30 years old using the ACUPULSE tool that accesses a U.S. geographically, ethnically, and socio-economically diverse sample. We administered a balance and falls survey that included 18 questions across 3 domains: 1) general health; 2) balance and falls; and 3) interest in balance improvement. Response options for all items ranged from 0-10, with higher scores indicating more importance.

Results: The study included 660 young(30-50 yrs), 212 middle-aged(51-65 yrs), and 137 older adults(>65 yrs). Women made up 48% of the sample; >33% had at least a bachelor's degree. The racial distribution was 76% white, 14% black, 4% Asian, 1.4% American Indian, and 5% other race. Those in the middle-aged group had the lowest mean self-reported health compared to the youngest and oldest groups (6.1 vs. 6.6 and 6.7, respectively, $p=0.002$). The oldest group ranked balance importance at 8.5 vs. 7.8 for the two younger groups ($p<.001$). There were no differences in self-reported balance between groups; however, worsening balance in the past 5 years was reported by a significantly greater proportion of older vs. younger adults (54%, 44%, and 27%, respectively, $p < 0.05$). With regards to balance improvement, interest was rated at 7.5 for the two younger vs. 7.4 in the oldest group, though more in the oldest vs. younger groups indicated that maintaining good balance would be important for staying active and independent (8.2 for young, 8.3 for middle, 8.9 for oldest; $p < 0.02$).

Conclusions: Older adults rated balance more importantly than younger adults, but interest in balance improvement in terms of education, expectations regarding balance decline, or methods to monitor it did not differ according to age. Those in the middle-aged group tended to rate their own health more poorly compared to the younger and older groups, suggesting that balance interventions should begin before age 65.

A89

Contrast sensitivity impairment predicts faster decline in mobility in cognitively unimpaired older adults: the Brain Networks and Mobility Function (BNET) Study

A. C. Thompson,^{1,2} M. E. Miller,^{2,6} H. Chen,³ C. C. Webb,³ J. D. Williamson,^{2,6} A. P. Marsh,⁴ C. Hugenschmidt,^{2,6} P. J. Laurienti,⁵ S. B. Kritchevsky,^{2,6} 1. *Ophthalmology; Geriatrics and Gerontology, Wake Forest Baptist Medical Center, Winston-Salem, NC;* 2. *Wake Forest Claude Pepper Older Americans Independence Center, Winston Salem, NC;* 3. *Biostatistics and Data Science, Wake Forest University School of Medicine, Winston-Salem, NC;* 4. *Wake Forest University, Winston-Salem, NC;* 5. *Radiology, Wake Forest University School of Medicine, Winston-Salem, NC;* 6. *Gerontology and Geriatric Medicine, Wake Forest University School of Medicine, Winston-Salem, NC.*

Background: To determine if baseline contrast sensitivity (CS) is associated with decline in performance on the expanded short physical performance battery (eSPPB) over 30 months of follow-up in cognitively healthy older adults.

Methods: Single-center prospective cohort study of 192 cognitively unimpaired, healthy older adults with good visual acuity and self-reported visual function. Linear mixed models examined the difference in the association of moderately impaired baseline CS ($\log CS < 1.55$) with performance on the eSPPB over 30 months. We used multivariable models adjusted for the effect of age, race, and sex to assess the slopes of eSPPB over time.

Results: At baseline, the mean participant age was 76.5 ± 4.7 years, with 56.5% (N=108) female and 9.4% (N=18) black. At 30 months, participants with moderately impaired CS at baseline had a significantly faster decline in eSPPB (Beta -0.115, 95% CI (-0.18, -0.05), $p=0.0006$) compared to those with normal CS (Beta -0.022, 95% CI (-0.044, -0.001), $p=0.0421$) with a difference in slopes of -0.093 units/yr (95% CI, -0.161, -0.024), $p=0.0086$). This difference in slopes

remained significant after adjusting for age, sex, and race (difference in slopes -0.086, 95% CI (-0.155, -0.016), $p=0.0163$). There was no significant association of baseline visual acuity or self-reported visual function with the decline in eSPPB over time.

Conclusions: In cognitively intact older adults who had good visual acuity, moderately impaired CS was associated with a significantly faster decline in eSPPB over 30 months of follow-up. A relatively simple test of vision may identify a subset of older adults without cognitive dysfunction who are at risk for mobility decline.

A90

The Laskaratos study: patterns of aging on the Greek island of Kefalonia; a model of healthy aging and resiliency beyond the trauma of earthquakes

F. Debonera, *FM, Cooper University Health Care Allied Health Programs, Camden, NJ.*

Assessing older adults through an ethnogeriatric lens has become apparent as we treat older adults from various ethnic backgrounds. The affect of trauma is important to identify aging trajectory. Older adults of the Greek Island of Kefalonia have distinct characteristics; they are the survivors of the most catastrophic earthquake in the history of Greece in 1953. In this study, we investigated demographics, patterns of home bound status, frailty status, organic markers and evaluated quality of life as reported by the local older adult population.

Methods. Adults over the age of 65 were included in this study. Parameters of demographics, hematological and biochemical status, socioeconomic status, BMI, frailty, ADLs, iADLs, home bound status (Ornstein criteria), quality of life (AD13 test) and quality of life Euroqol EQ5D5L. Data were analyzed using the GraphPad Prism 9.

Results. 144 adults were included in the study; age averaged a mean of 79.4 years (min 65, max 99). BMI averaged 28.74. BMI declined over 85, but overall BMI was stable (>25) in the homebound patients. Frailty was 1.28/5. Patients performed 5/6 ADLs and 5.5/8 iADLS. 63% were independent, 39% home bound. A 10% of homebound patients were bedbound. Albumin remained over 4 across the frailty and homebound groups. Cholesterol levels decreased with increasing frailty (prefrail to frail $p<0.05$). Creatinine values increased with frailty status, home bound status and 85 ($p<0.05$), however levels never exceeded 1.5. eGFR showed non statistically significant decline and above 45. Hemoglobin values were noted to drop in prefrail and frail older adults ($p<0.05$, min 11). Quality of life QOL-AD13 was 35/52 on average, with reported good health of 68%.

Conclusions: The results of this study show interesting patterns of aging with patients remaining autonomous and functional until later age. This population is showing healthy BMIs and low levels of frailty, without detrimental trajectories of nutritional status or kidney function, low incidence of depression and self-reported satisfactory quality of life. A pattern of resiliency is apparent. Considering the robust immigration waves in our world as well as the need for ethnogeriatric studies, it is important to continue studying populations of older adults who have survived trauma of natural disasters and age in place.

A91

Tailoring Age-Friendly dementia care to Latino/a/e populations: A qualitative study

R. Gates,¹ E. K. Thayer,¹ P. Tabon,² T. Sivers-Teixeira,¹ B. Olsen.¹ 1. *Family Medicine, University of Southern California Keck School of Medicine, Los Angeles, CA;* 2. *Titus Family Department of Clinical Pharmacy, Alfred E. Mann School of Pharmacy and Pharmaceutical Sciences, University of Southern California, Los Angeles, CA.*

Background: Despite higher prevalence of dementing illnesses in Latino/a/e populations, detection is lower compared to white populations, compounding racial/ethnic and economic disparities. In support of effective Age-Friendly dementia care, four sustainable

dementia clinic workflows built on the 4M framework were iteratively developed and implemented over 18 months in an urban Federally Qualified Health Center serving immigrant, low income, Spanish-speaking, older adults to prioritize identification and management of cognitive impairment. Culturally sensitive adaptations to the workflow, and continuous education of and feedback from the Geri Team were critical to effective implementation. The purpose of this study was to understand patients/caregivers' and Geri Team members' experience of this dementia-friendly approach to care.

Methods: Two-phase qualitative study. Phase 1: semi-structured interviews with four patients and four caregivers who attended a visit with the Geri Team. Phase 2: a focus group with ten Geri Team members. The Interviews and focus group were conducted over Teams and Zoom, audio recorded, transcribed, and analyzed for themes.

Results: Patients and caregivers reported feeling comfortable, heard, and attended to by providers, and gained a better understanding of dementia, what to expect, and what the patient's needs are. Suggestions for improvement included better institution-wide access and communication, including timely follow-up appointments. The Geri Team attributed their success to open-minded teamwork and dedication to patient care across team roles. They were able to provide culturally aligned care because most speak Spanish, share a similar cultural background, and are committed to supporting the values and needs of the Latino/a/e community. The Geri Team emphasized continued leadership commitment and resource provision to support geriatric care will be essential for workflow longevity.

Conclusions: Effective implementation of comprehensive dementia care that meets the needs of Latino/a/e patients and caregivers requires culturally congruent interventions. Developing a flexible geri-trained clinical team dedicated to the community served contributes to sustainability.

A92

Visual Transcripts in the Analysis of Dementia Caregiving Relationships in the Home: Enriching Findings Through Drawings

L. Li,¹ J. Gubner,² T. A. Allison.¹ *1. Geriatrics, University of California San Francisco, San Francisco, CA; 2. University of Arizona, Tucson, AZ.*

Background: Visual analysis as an arts-based qualitative inquiry can transform words to images and provides new modes of analyzing audio-recorded interviews and ethnographic data. This method has not been done in dementia-related research and may have a unique role for representing lived experiences of participants in their home environments.

Methods: Using qualitative data from 10 interviews with 5 people living with dementia (mean age 84 ± 12 years; 20% women; 40% people of color) and their care partners (2 professionals, 2 spouses, 1 sibling; 80% women; 80% people of color), we created representative, collage-like drawings based on audio-recorded dialogues exchanged between the interviewers and participants and re-examined them alongside written themes.

Results: The non-linear representation offered by visual transcripts (Figure 1) illustrated important aspects of the complexities of everyday life in dementia caregiving relationships that were not articulated in initial thematic analysis of audio-to-text transcripts. The visual format also led to productive dialogic feedback between researchers, facilitating rich discussions that allowed us to meaningfully engage with data in new ways. Compared to text-based analysis, visual transcripts facilitated a more nuanced understanding of the many overlapping layers of everyday life in dementia caregiving relationships –from medication and behavioral management to experiences that brought joy and hope – much in the way that events took unpredictably in everyday life.

Conclusions: Visual analysis can be a useful approach for validating, challenging, and triangulating ethnographic data involving people living with dementia and their care partners.



Visual transcript illustrating the dementia caregiving relationship

A93

Begging For the Question: What Matters Most in Long-Term Care Facilities

K. C. Dowell, M. Maize, M. Vandivort, M. Fain. *Geriatric Medicine, Banner - University Medical Center Tucson, Tucson, AZ.*

Background: What Matters Most shines brighter and brighter as a key pillar in the care of older adults. This cross-sectional study investigates the relationship between residents and staff in a long-term care facility, specifically aiming to identify the residents' goals and wishes and to compare and contrast the perspectives of the residents and the staff.

Methods: In March 2023, we interviewed sixteen residents using a survey containing ten questions about their own goals and understanding, then administered the same survey to a staff member about the perceived goals and understanding of each of these 16 residents and focused on the intersection of the responses.

Results: Although the study was small, thorough analysis of the side by side data demonstrates that though staff and residents seem to generally agree on what is important to the individual from day to day, there is only minimal correlation when it comes to advanced care planning. The findings are striking regarding medical power of attorney, whether the resident wishes to be transferred to a hospital or treated in the long-term care facility for acute illness, and apparent understanding of advanced directives from both resident and staff viewpoints.

There was fairly universal agreement between resident and staff about code status of each individual. However, only one third of residents surveyed indicated that they wish to be transferred to the hospital in case of acute illness. The resident and staff agreed two thirds of the time whether the resident wishes to be transferred to the hospital in case of acute illness. Additionally, the designated medical power of attorney was perceived as "self" or "not applicable" in 40% of staff surveys and in about 40% of resident surveys, with about 47% agreement between the residents and staff.

Conclusions: The next step is to survey residents and staff regarding a larger number of residents in a variety of long term care facilities across a broader geographic spectrum. It would also be particularly interesting and powerful to survey not only the residents and staff but also the designated medical powers of attorney for each individual. This study illustrates a glimmer of insight as to the importance of communicating, educating residents, patients, medical staff, and care partners, the strides we have made, and the educational journey ahead with the goal of realizing what matters most.

A94

Crafting Our Stories: Empowering Interprofessional Teams with Narrative Medicine for Resilience, Trust, and Moral Distress Alleviation in an Urban Academic Center

R. P. Pandya,^{1,3} G. Thistlewaite,^{2,1} D. Jilani,^{1,3} J. Blumenthal,^{3,1} R. E. Kheirbek.^{1,2} 1. *Geriatrics, University of Maryland School of Medicine, Baltimore, MD*; 2. *Palliative Medicine, University of Maryland School of Medicine, Baltimore, MD*; 3. *GRECC, VA Maryland Health Care System, Baltimore, MD*.

Background:

Narrative medicine has emerged as a transformative approach to augment self and patient-centered care within healthcare, yet effective educational interventions often lack structured interprofessional interactions. To bridge this gap, an experiential narrative medicine curriculum was designed and piloted.

Methods:

The study aimed to cultivate narrative competence, foster attentive listening, and prompt reflection within an interprofessional geriatric and palliative care team. The curriculum spanned an introductory session, prompted writing exercises, and group reflection sessions. Providers engaged in attentive listening, crafted personal responses to prompts, and shared their narratives within the group. Likert scale ratings (1-5) were utilized to assess the program’s effectiveness in enhancing communication, trust, and reducing moral distress. Additionally, qualitative analysis captured the number of positive comments highlighting emotional impact or improved teamwork.

Results:

Between 2020 and March 2022, five interprofessional focus group meetings were held, incorporating both qualitative and quantitative evaluations. Likert scale ratings revealed significant improvements, with participants rating the program highly for enhancing communication, trust, and alleviating moral distress. Qualitative analysis showcased a notable number of positive comments emphasizing the emotional impact experienced and improved teamwork reported by participants.

Conclusion:

The findings underscore the efficacy of the narrative medicine curriculum within an interprofessional setting and highlights its potential to profoundly impact healthcare practice by fostering resilience, trust, and ultimately improving patient-centered care. The ongoing refinement of such programs could significantly influence healthcare team dynamics and patient outcomes.

A95

Recurrent Severe Hyponatremia; Careful Hand Feeding offers Comfort and Quality of Life

D. P. Singh, R. O’ Russell, T. Dharmarajan. *Department of Geriatric Medicine, Montefiore Medical Center, New York, NY*.

Background

Hyponatremia is common in frail old adults and associated with morbidity and mortality. Predisposing factors include failure to perceive and react to thirst, and impaired renal concentrating and diluting functions. In long-term care settings, patients are often frail, have dementia and rely on others for their water needs, and prone to hyponatremia.

Case

Our patient, a 90-year-old female with advanced dementia, spindle shaped lung cancer and hypertension has been in the nursing home for assistance with activities of daily living and custodial care. During her 5 year stay, she developed hyponatremia numerous times with serum sodium (Na) ranging from 155-170mgEq/l. She was managed at the facility with intravenous (IV) fluids and encouragement of oral feeding. Serum Na improved significantly after IV fluids. In the past year, her Na levels tended to be higher, requiring IV fluids more often, with more hospitalizations.

In her living will, she had stated she did not want a feeding tube. An ethics committee was convened to establish options to facilitate water intake. The committee (comprising nurse manager, dietitian, social worker, attending, fellow and catholic priest) reviewed patient records and determined: make the patient comfortable; no further IV fluids or blood draws; and no alternate route of feeding. She has since been managed with careful hand feeding.

Discussion

Hyponatremia is common in frail old patients in long-term care facilities. Physiological and pathological changes with water regulation and renal function decline (glomerular filtration, concentration and dilution) and possible endocrine changes, in presence of dementia are pre-disposing factors. The response to thirst maybe impaired or non-existent as in our case. Often, patients are subjected to aggressive interventions with no clinical benefit or better quality of life. Careful comfort feeding (with the hand) by caring staff offers better clinical outcomes and quality of life. Our case is a common geriatric dilemma in managing recurrent hyponatremia; without a gastrostomy, we respected patient autonomy and improved quality of life.

Key Points

- Hyponatremia is common in the frail old, due to poor thirst perception and response, often with impaired renal function.
- Careful hand feeding (comfort feeding) respects patient autonomy and offers as much or more benefits versus tube feeding.

A96

Shared Decision-Making on Treatment Escalation Plans in the acute hospital setting for older patients: Stage-managing a ‘right’ decision

B. Warner,¹ M. Wells,¹ C. Vindrola-Padros,² S. J. Brett.¹ 1. *Surgery and Cancer, Imperial College London, London, United Kingdom*; 2. *University College London, London, United Kingdom*.

Background: Shared decision-making (SDM) is increasingly considered good practice in health systems which prioritise autonomy such as North America and the UK. Treatment escalation plans (TEP) document a contingency for medical intervention following patient deterioration. UK guidance mandates capacitous patients’ awareness of cardiopulmonary resuscitation (CPR) decisions and prompts SDM throughout TEP. The ageing population increases relevance and challenge of TEP in the acute hospital setting.

Aim: To understand physicians’ perspectives on SDM in TEP.

Methods: Qualitative methods study with a relativist constructivist approach. Physicians were recruited from acute hospital specialties caring for older patients (intensive care, emergency medicine, internal medicine, palliative care). Semi-structured interviews included vignettes on older multi-morbid patients with capacity to discuss TEP. Reflexive Thematic Analysis was performed. Ethics: Health Research Authority 22/HRA/4387.

Results: There were 26 interviews (average duration 61mins, range 35-79mins). TEPs were complex, important, emotive decisions often relating to organ support or CPR. Physicians formulated individualised but medically acceptable decisions and sought patient approval. Three themes were generated: Achieving agreement with the ‘right’ TEP decision, Avoiding conflict, The doctor-patient relationship beyond TEP. Participants described clinician-led decision-making, but emphasised patient understanding and agreement to empower and maximise trust. The conversation was perceived to be nuanced and to require strong communication skills. Participants recalled challenging cases and there was fear of conflict and legal repercussions. Physicians employed strategies such as revisiting conversations, graphic descriptions of CPR, ‘stock phrases’, charisma and paternalism to achieve concordance. The doctor-patient relationship was valued and could be threatened by difficult TEP decisions, while compromise could preserve rapport.

Conclusion: Physicians prioritised shared understanding and agreement rather than shared decision-making in TEP.

These findings, implying potential disconnect between policy and practice, are relevant to healthcare leaders considering practicable TEP decision-making guidance.

A97

Making A Difficult Choice – Patient Autonomy is Paramount and Must be Respected!

S. Ali, A. Lebelt, T. Dharmarajan. *Geriatrics, Montefiore Medical Center, New York, NY.*

Introduction

Septic thrombophlebitis of the internal jugular vein & septic emboli in distant organs are common features of Lemierre’s disease, usually originating from an oropharyngeal infection. While uncommon, early recognition & management are critical, since it often indicates immunocompromised states, including malignancies. Pertinent medical decision-making involves weighing the risk of contrast-induced renal failure versus contrast-enhanced imaging to diagnose life-threatening conditions. Informed consent, risk assessment, & patient autonomy are all factors in optimizing outcomes.

Case

A 59-year-old male with hypertension, type 2 diabetes, hyperlipidemia, & chronic kidney disease (CKD Stage IV), with legal blindness presented to the ED with a one-week history of a painful right-sided neck mass & dysphagia. Imaging revealed septic thrombophlebitis of the right internal jugular vein & deep vein thrombosis (DVT); neck biopsy with blood cultures isolated Klebsiella. After discussing the risks & benefits of contrast CT scans of the chest (to rule out mediastinitis/lymphoma), the family decided against the procedure out of concern for acute kidney injury (AKI). They chose empirical antibiotics despite the possibility of underlying malignancy. Interventional radiology biopsy was expected in weeks, prolonging management uncertainty. Inflammatory markers were persistently elevated despite treatment. Accepting the uncertainties of his condition demonstrated he was prepared to face the inevitable without compromising his quality of life.

Discussion

Healthcare ethics include autonomy, beneficence, non-maleficence, futility, & justice. Autonomy prevails over beneficence. It is important to respect patient autonomy by providing information & supporting informed decisions, even if they differ from expert recommendations. Physicians must provide patients with guidance, relevant information, alternatives & options within ethical and legal boundaries in order to prioritize their well-being. On the clinical front, our patient had declining inflammatory markers, improvements in AKI & functionality. Inconclusive biopsy results mean contrast imaging is still needed to rule out underlying malignancy. Follow-up in multidisciplinary settings was provided after discharge.

Key Takeaway

Empowering patients with autonomy amid potential risks is vital. Physician guidance ensures informed choices align with individual values.

A98

Adapting Behavioral Activation for Older Veterans at Risk for Functional Decline

M. A. Kennedy,¹ S. C. Ruggles,¹ A. E. Canell,¹ J. E. McLaren,¹ P. M. Bamonti,² M. M. Kelly,¹ K. D. Lyons,³ J. Bean.² *1. VA Bedford Healthcare System, Bedford, MA; 2. VA Boston Healthcare System, West Roxbury, MA; 3. MGH Institute of Health Professions, Boston, MA.*

Background: Activity restriction is a common feature of health conditions that contribute to functional decline in older adults. Behavioral activation (BA) is an evidence-based treatment for depression focused on increasing activity engagement. While recent studies show promise for BA’s impact on functional outcomes, it is not yet widely used as an intervention for functioning. We aimed to adapt a

BA protocol to improve physical, cognitive, and social functioning through values-aligned activity engagement in older Veterans at risk for functional decline.

Methods: 10 VA clinicians and 5 older (age ≥65), community-dwelling Veterans at risk for functional decline (Vulnerable Elders Survey-13 score ≥3) completed semi-structured interviews regarding their perceptions of an adapted BA intervention. Participants reviewed components of the proposed intervention and were asked for feedback on the program structure, format (telehealth), content, and relevance. Interviews were recorded, transcribed, and analyzed using rapid qualitative analysis.

Results: Clinicians and Veterans were satisfied with the program structure (6 weekly, 1hr sessions), but emphasized the need for flexibility in scheduling. They perceived both challenges (loss of personal connection, technology access) and benefits (ease of scheduling) of telehealth delivery. They enjoyed the introductory material about BA, including the emphasis on values and 3 domains (physical, cognitive, social). Participants noted the program focus is highly relevant for older Veterans and has potential to improve physical and mental health, as well as offer hope and connections to other services. Suggestions for improvement included tailoring to each Veteran’s experience and clarification of terms. Veterans also found the content resonated with their personal experience.

Conclusions: Participants found a proposed BA intervention for older Veterans at risk for functional decline to be acceptable. Findings will be used to refine the intervention prior to pilot testing. Aligned with “What Matters” in the Age-Friendly care model, a values-focused BA intervention may support independence among those at risk for functional decline.

A99

Association of Appendicular Lean Mass and Abdominal Adiposity with Insulin Resistance in Older Adults

J. Cheng,¹ L. Liang,² C. Lee,^{1,3} *1. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 2. Department of Medicine Statistics Core, University of California Los Angeles, Los Angeles, CA; 3. University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA.*

Background

Aging-associated changes of body composition include loss of lean muscle mass and accumulation of adipose tissue. Previous studies have documented various components of body composition as predictors for insulin resistance. The objective of this study was to investigate which component of body composition—decreased appendicular lean mass (ALM) or increased abdominal fat mass (AFM)—is best correlated with insulin resistance in older men and women.

Methods

This was a cross-sectional, secondary analysis of 92 healthy, older individuals without diabetes. All body composition data was determined by dual energy x-ray absorptiometry (DEXA), and insulin resistance was assessed by the homeostatic model assessment of insulin resistance (HOMA-IR). Multivariable regression models were used to examine the associations between components of body composition and HOMA-IR.

Results

Mean age & standard deviation (SD) of the participants was 70.1±7.3 years with approximately 65% male and 63% categorized as overweight with body mass index (BMI) >25. Mean body fat percentage (± SD) of the study participants was 34.8±11.6%. After adjustment for age, gender, and ALM, AFM (slope 0.052, p=0.0003) was found to be independently associated with insulin resistance in all individuals. Individuals were further categorized according to their BMI: normal (<25) and overweight (>25) to evaluate whether these associations differed among the BMI groups. We observed significantly different associations between ALM and insulin resistance for the normal vs.

overweight (-0.087 vs. 0.020, $p=0.0006$) after adjustment for age, gender, and AFM. ALM exhibited a positive association with HOMA in overweight individuals, after adjustment for age, gender, and AFM (0.052, $p=0.0312$).

Conclusions

Abdominal adiposity was correlated with insulin resistance overall. Contrary to our hypothesis, increased appendicular lean mass was found to be associated with insulin resistance in overweight individuals. Further research is needed to clarify if the association between increased appendicular lean mass and insulin resistance is due to intramyocellular or intermuscular lipid deposition.

A100

Age-related effects of cancer on macrophage function and phenotype in murine melanoma model, and its implications on macrophage targeted anticancer therapies.

M. Suresh, X. Li, S. Noonepalle, N. Gajendran, M. Durr, D. Quiceno-Torres, K. Tan, A. Villagra. *Oncology, Georgetown University Medical Center, Washington, DC.*

Background: Aging trajectories and immune senescence are affected by cancer and their associated treatments. The bidirectional relationship between aging and cancer is understudied mainly due to underrepresentation of elderly population in preclinical and clinical studies. Macrophages contribute to an immunosuppressive tumor microenvironment (TME) and resistance to established treatments. New therapies to modulate the phenotype and function of macrophages in the TME are being developed, including targeted inhibition of histone deacetylases 6 (HDAC6) to modulate macrophages from anti-inflammatory, M2-like, to proinflammatory, M1-like phenotype. However, the effects of cancer on the function of macrophages and if such macrophage-based therapies can, in turn, affect aging endpoints are unknown. This study characterizes age- and cancer-associated changes in macrophage function and the implications on aging trajectories.

Methods: Wild-type mice of four age groups were injected with SM1 melanoma cells. Bone marrow-derived macrophages (BMDMs) isolated from tumor-bearing and healthy mice were polarized to M1 and M2 phenotype and treated with HDAC6i to study age-associated changes in macrophage function. Pathways associated with macrophage polarization were examined by flow cytometry, qRT-PCR, western blot, and single-cell proteomics. Immune cells in TME were characterized in flow cytometry and single-cell RNA and secretome analyses.

Results: SM1 tumor growth was significantly slower in older mice when compared to younger mice. Aged macrophages demonstrated a defect in polarizing to M1 and M2 phenotypes that was more pronounced in BMDMs from tumor-bearing mice. Tumor-associated macrophages showed inefficient monocyte-to-macrophage transition, as reflected in the single-cell secretome analysis. The ability of HDAC6i to enhance macrophage function was reduced among older mice.

Conclusions: The functional and phenotypic characteristics of macrophages change with age and can significantly affect tumor growth and the effectiveness of macrophage-targeted anticancer therapies. Our study highlights the importance of studying aging in macrophages and better representation of aged populations in preclinical and clinical studies.

A101

Alzheimer’s Interprofessional Training: Comparable Learning Gains for Nursing and Pharmacy Students

S. Toth-Cohen,¹ J. Kates,² M. Brucato,³ B. Salzman.³ *1. Occupational Therapy, Thomas Jefferson University, Philadelphia, PA; 2. Department of Nursing, Thomas Jefferson University, Philadelphia, PA; 3. Jefferson Center for Interprofessional Practice and Education, Thomas Jefferson University, Philadelphia, PA.*

B. Alzheimer’s Virtual interprofessional Training program (AVIT) is an interprofessional virtual education program where teams from different health professions learn to recognize signs and symptoms of Alzheimer’s and related dementias (AD/ADRD), manage and support patients and families, and collaborate to address patient and family needs. Previous aggregated analyses indicated that overall, students showed gains in knowledge and self-reported confidence in skills for interprofessional care of individuals with AD/ADRD by participating in AVIT; however, whether there are differences in gains by student profession has yet to be explored. Using data from 2019 to 2023, this study investigated if there were statistically significant differences in program outcomes by student profession.

M. Students enrolled in AVIT received pre- and post-program surveys on knowledge and self-reported confidence in skills related to interprofessional care of individuals with AD/ADRD collected at each timepoint. Between-group statistical comparisons were made in professions with > 10 students using parametric testing for knowledge and non-parametric testing for confidence.

R. 79 students responded to the pre-program survey, 83 responded to the post-program survey. Data were available at each timepoint from students in Medicine (n=14), Nursing (n=93), Occupational Therapy (n=18), Pharmacy(n=29), Physical Therapy (n=2), and Public Health (n=9). Independent samples t-tests and Mann Whitney U tests comparing Nursing and Pharmacy students showed no statistically significant differences in knowledge or confidence at pre- or post-program ($p > .05$). Overall, there was a statistically significant increase in knowledge from pre to post, $p < .001$ and confidence from pre to post ($p < .001$) across all professions.

C. Interprofessional education can help prepare students from several professions for collaborative practice in the care of individuals with AD/ADRD. Specific comparison of outcomes between Nursing and Pharmacy students suggests that student participants from these professions have comparable pre-program knowledge and achieve similar learning outcomes by post-program, suggesting a comparable benefit of participation across professional groups.

A102

Towards an Age Friendly Health System: Opportunities for Educating Physician Assistants (PAs)

L. J. Granville,¹ B. Smith.² *1. Geriatrics, Florida State University, Tallahassee, FL; 2. Physician Assistant Practice, Florida State University, Tallahassee, FL.*

Background: PAs are underutilized in filling the geriatrics workforce gap; National Commission on Certification of PAs 2022 data shows 901 PAs (<1%) worked in geriatrics as primary specialty. Our PA training program’s mission includes developing competence in geriatrics. During preclerkship training, students are introduced to each 4M. Subsequently during clerkship year, we monitor students on application of 4Ms training on each clerkship rotation. 4Ms application includes documenting 4Ms diagnoses and use of 4Ms skills, such as administration and interpretation of validated tools for gait or cognitive assessment.

Methods: Each clinical rotation incorporates an Encounter Tracking System (ETS) to monitor number / types of clinical exposures. Our ETS database allows surveillance of applied 4Ms geriatric knowledge and skills. 4Ms Geriatrics content in ETS database for each required clerkship (excluding Pediatrics) was reviewed for most recent

graduates, Class 2022. PA required clerkships include 6-week rotations on Family Medicine (FM), Internal Medicine (IM), Psychiatry (Psych), Gynecology (Gyn), and Surgery (Surg); and 4-week rotations on Emergency Medicine and Geriatric Medicine. The 2022 Class had 56 grads; 9% men, 30% underrepresented population, ages 21-52 yo.

Results: In every clerkship, application of 4Ms Geriatrics content was reported in ETS. In aggregate, 4Ms occurred from most common to least common as follows: Medication (N=11316), Mentation (N=10481), Mobility (N=5259), Matters Most (N=2255). Medication was most common in all but 2 rotations; in Geriatric Medicine and Psych rotations Mentation was more common. Matters Most was least common in all but 2 rotations: Surg (Mentation least common), Gyn (Mobility least common). Compared to Geriatrics, attention to Medication was similar in FM and IM; attention to Mentation similar in Psych; attention to Mobility similar in FM and IM; and attention to Matters Most similar in FM and IM.

Conclusions: 4Ms content occurred in each clerkship suggesting that 4Ms training provides an opportunity for PA learners to apply their knowledge in multiple settings outside of a Geriatrics clerkship. Trends of use of 4Ms content reveal opportunities for further enhancement of training. Our model for 4Ms Geriatrics content in the ETS database is readily available for adaptation by other programs.

A103

We Practice What We Teach: Faculty Caregiver Referrals as an Unanticipated Outcome of a Student-Aimed Educational Session

K. Denson,⁴ E. Duthie,⁴ S. Barnes,¹ W. Betley,² S. Denson,⁴ A. Szymkowski,⁴ D. Simpson.³ 1. Marquette University, Milwaukee, WI; 2. Alzheimer's Association, Milwaukee, WI; 3. Advocate Aurora Health Inc, Milwaukee, WI; 4. Medical College of Wisconsin, Milwaukee, WI.

Background:

Clinicians underutilize caregiver support resources despite evidence that decreasing caregiver burden is associated with improved care for dementia patients. Educating students and clinicians about accessing caregiver resources and referral services through varied educational approaches has proven challenging.

Methods:

An interprofessional team (i.e., caregiver referral specialists, educationalist, geriatricians, social gerontologist), created educational sessions focused on dementia and caregiver resources aimed at medical, nursing, and pharmacy students. Materials were piloted at geriatric division meetings and revised. Team members then led 15-60 minute student sessions that included: 1) identification of dementia; 2) point-of-care dementia and caregiver support tools (www.geriatricfastfacts.com); and 3) initiating Direct Connect (DC) referrals to the Alzheimer's Association. Ongoing PDSA cycles led to curriculum changes with updates, and DC referral data was shared with geriatric division faculty and residents/fellows at educational conferences and faculty meetings.

Results:

Direct Connect referrals from clinicians averaged 23/month at baseline (N=270 in FY 2021). Referrals increased following training to 25/month (N=300, FY 2022) and 30/month (N=355, FY 2023). This represents a 30% increase, from FY 2021 to FY 2023. However, further analysis of referral data by provider/clinic name reveals student referrals were limited, with most of the increase in DC referrals accounted for by geriatric faculty and staff.

Conclusions:

This educational intervention aimed at students increased the total number of DC caregiver referrals. Most of these additional referrals came from faculty members, however, rather than students. Next steps involve continued examination surrounding reasons for student non-referrals including level of student involvement in faculty referrals. Meanwhile, continued project emphasis and discussion will ensure that we as faculty continue to "practice what we teach".

A104 Encore Presentation

Healthcare Providers' Perspectives on Using the Driving and Dementia Roadmap

G. Naglie,^{2,3} E. Stasiulis,⁴ M. J. Rapoport.^{1,3} 1. Sunnybrook Health Sciences Centre, Toronto, ON, Canada; 2. Baycrest, Toronto, ON, Canada; 3. University of Toronto, Toronto, ON, Canada; 4. Rotman Research Institute, Baycrest, Toronto, ON, Canada.

Background: Driving cessation poses considerable challenges for people with dementia, family/friend carers, as well as healthcare providers (HCPs) who lack training and knowledge about this topic. To address the gap in accessible resources to support affected individuals, we developed a web-based resource/toolkit called the Driving and Dementia Roadmap (DDR) (www.drivinganddementia.ca). To ensure the sustainability and scale up of the DDR, we are exploring its acceptability, appropriateness and impact on how users manage driving cessation. In this poster, we report on early results of HCPs' perspectives of using the DDR.

Methods: Our on-going knowledge translation research activities include conducting surveys about the DDR. All DDR users are invited to participate in a short online survey via a pop-up message. In the HCP survey, questions include participants' perceptions about knowledge gained, changes in confidence, as well as their satisfaction with the DDR. A descriptive summary of survey responses to date was conducted.

Results: A total of 27 healthcare/service providers (5 nursing professionals, 8 occupational therapists, 4 geriatricians, 2 primary care physicians, 2 Alzheimer Society staff, 2 social workers, 1 administrator and 3 non-disclosed) completed the survey. Most were women (93%) and had been practicing for over 10 years (70%) in 8 Canadian provinces. Interactions with patients about driving cessation occurred frequently or very frequently (77%). As a result of using the DDR, 44% of participants reported increased gains in "new knowledge" and 67% reported "somewhat" to "much more confidence" in having conversations about and managing the emotional impact of stopping to drive. The majority of participants (74% - 85%) indicated being "satisfied" to "very satisfied" with all aspects of the DDR (e.g., usefulness, comprehensiveness, ease of navigation, as well as meeting their knowledge needs).

Conclusion: Early survey results indicate that the DDR is an acceptable and appropriate resource for HCPs, effectively meeting their knowledge needs in regards to driving cessation and dementia. Next steps will involve in-depth interviews with HCPs to further explore how they experience the DDR and its impact on their practice.

A105 Encore Presentation

An Implementation Evaluation of the Driving and Dementia Roadmap in Alzheimer Society Organizations

G. Naglie,^{4,3} E. Stasiulis,² H. Sandhu,² C. E. Gallucci,² M. J. Rapoport.^{1,3} 1. Sunnybrook Health Sciences Centre, Toronto, ON, Canada; 2. Rotman Research Institute, Baycrest, Toronto, ON, Canada; 3. University of Toronto, Toronto, ON, Canada; 4. Baycrest, Toronto, ON, Canada.

Background: In response to the immense challenges that people with dementia (PWD) and family/friend carers (FCs) face in the driving cessation process, we developed the Driving and Dementia Roadmap (DDR) (www.drivinganddementia.ca). The DDR is a web-based resource comprised of information and tools to support PWD, FCs and healthcare providers in the decision-making and transition to non-driving. To understand the factors (i.e., barriers and facilitators) that influenced the DDR's implementation in Alzheimer Society (AS) settings, we conducted an implementation evaluation.

Methods: The DDR was implemented by AS staff in 6 organizations in 4 Canadian provinces. Nineteen AS staff were interviewed after a 3 to 6-month period of delivering the DDR to their clients. Participants also recorded details about each interaction involving

the DDR (e.g., setting, mode, rationale). Data were examined using a thematic analysis approach guided by the Consolidated Framework for Implementation Research (CFIR).

Results: The DDR was introduced mainly by telephone/email to FCs concerned about driving issues. Main factors facilitating the DDR's implementation were related to the DDR's characteristics, such as its perceived evidence strength (e.g., research-based) and quality (e.g., variety of tools, association with reputable organizations), superiority to other resources (e.g., more comprehensive and user friendly) and its ease of delivery (e.g., minimal instruction required). AS staff characteristics that facilitated implementation included their enthusiastic and favorable views about the DDR's potential to be an empowering resource to instigate conversations and early planning for driving cessation. Barriers to implementation included clients' lack of computer skills as well as competing priorities for AS staff such as other projects and tasks, and attending to COVID-19 pandemic related issues (e.g., isolation, caregiver burnout).

Conclusion: This study highlights how the perceived strengths of the DDR resource itself and AS staff's favorable beliefs about the DDR facilitated its successful implementation in AS settings. Strategies to address implementation barriers include offering a print-based version of the DDR.

A106

A New Horizon: Initial Evaluation of a Geriatrics Nurse Practitioner Residency Program

A. Moore, T. Stuart, M. Ruopp, S. King. *VA Boston Healthcare System Brockton Division, Brockton, MA.*

Background: Demand for competent geriatric medical care is expanding to meet the needs of a growing older adult population. Specialized geriatric nurse practitioner training represents one avenue to increase access to skilled geriatric care. In 2022, VA Boston implemented a one-year geriatrics nurse practitioner (NP) residency program with the goal of producing nurse practitioners proficient in geriatric medicine.

Methods: The VA Boston Geriatric NP program provides an immersive experience for two to three NP residents in geriatrics with 80% of time dedicated to clinical care and 20% of time to didactic education. Residents complete core rotations in long term care, subacute rehab, and outpatient geriatrics. Additionally, residents complete short term rotations with hospice and palliative care, home based primary care, women's health, pain management, geriatric oncology, and geriatric pharmacy. We reviewed competency and confidence in practice for NP resident and faculty evaluations in our first cohort of NP residents at months 1, 6, & 12.

Results: Analysis of 1,422 individual survey responses provided by program participants and faculty were reviewed and evaluated for key trends.

All domains of confidence showed improvement throughout the program, however, both the degree and timing varied across domains. Confidence in patient care showed the largest overall increase of 63% within the first six months, and a 91% increase overall. In contrast, residents showed more modest improvements to confidence in the "Communication and Collaboration" domain in their first six months with a 17% increase, which rapidly accelerated during the second half of the year, resulting in an 82% overall improvement.

Similar variance was observed in competence-based evaluations. All evaluated domains of competence increased during the year, notably, resource utilization (46% increase), quality improvement (42% increase) and clinical leadership (38% increase). Varying learning curves were also observed across domains (clinical leadership, for example, tended to develop primarily in the second half of the program).

Conclusion: A geriatric NP residency program can improve confidence and competence in geriatric care, enhance clinical knowledge, and improve access to care for the older adult population.

A107

An Evaluation of Geriatric Medicine Fellowship Websites

E. Courtois,^{1,5} J. Lahti,² T. Varkey,³ N. Agarwal.⁴ *1. The Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH; 2. Patient Services, Banner Home Care, Gilbert, AZ; 3. Banner - University Medical Center Tucson, Tucson, AZ; 4. Internal Med/ Geriatric Med, Banner Health, Phoenix, AZ; 5. Texas Back Institute, Plano, TX.*

Introduction

Access to sufficient information for any fellowship training program is essential to applicants. If this information is not provided, potential fellows may be deterred from pursuing potential fellowship education opportunities. With a shortage of geriatric physicians, applying to these fellowship programs is imperative.

Objective

To examine electronically accessible information to those interested in pursuing a fellowship in geriatrics in their medical training journey.

Materials and Methods

Using the Electronic Residency Application Services (ERAS), as of April 11, 2023, a list of websites was created of institutions offering Accreditation Council for Graduate Medical Education (ACGME)-accredited Internal Medicine-based Geriatrics Fellowship programs, which also participate in the Match. Every website was evaluated for application information such as application deadlines, program director/coordinator contact information, and a list of application requirements. A total of 111 geriatric fellowship websites were initially included. Of those, 8 were excluded due to not participating in the Match or being unregistered. Any nonfunctioning websites underwent a simple Google search, and were excluded if there were still no results.

Results

ERAS listed 16 nonfunctioning websites. After a Google search, 1 program failed to be located. Data from the remaining 102 websites were recorded and analyzed. Of the included programs, 85 had a program coordinator's contact and 62 had a program director's contact. There were 27, 32, and 69 programs which listed an opening date, deadline, and location to submit an application, respectively. Only 1 listed a board score requirement and 59 referenced a visa sponsorship. Finally, 77 (77%) listed application requirements.

Discussion/Conclusion

Most programs provided insufficient application information. If this is rectified by updating and completing these websites in greater detail, there may be an increase in the number of applicants to these programs, therefore increasing the number of skilled, qualified geriatricians.

A108

Impact of a Pilot Train-the-Trainer Curriculum with Nursing Home Ombudsmen

T. Sivers-Teixeira,¹ S. Chen,² E. K. Thayer,¹ C. Penate,¹ E. Chang,³ B. Olsen.¹ *1. Family Medicine, University of Southern California Keck School of Medicine, Los Angeles, CA; 2. University of Southern California Keck School of Medicine, Los Angeles, CA; 3. Weill Cornell Medicine, New York, NY.*

Background: Healthcare worker shortages and access disparities were exacerbated during the COVID pandemic most acutely in nursing homes (NH). Long-Term Care Ombudsmen (LTCO) assist residents in NH with issues related to care, safety, personal preferences, violation of rights, and elder abuse. The USC Geriatric Workforce Enhancement Program (GWEP) trained LTCO to become Trainers in a novel program to improve geriatric competencies of Certified Nursing Assistants (CNAs). This study evaluates the impact of this pilot program.

Methods: A 3-lesson curriculum was developed, with the Los Angeles LTCO Program administered by WISE & Healthy Aging and

Alzheimer's Los Angeles, to address 1) Age-Friendly (AF) principles of NH care for older adults, 2) evidence-based strategies for managing behavior issues related to dementia, and 3) strategies to increase culturally appropriate communication with patients and their caregivers. Using a train-the-trainer model, the curriculum was deployed to 5 LTCO who delivered the training to CNAs employed or training in 5 local NHs. The GWEP team developed a mixed-methods study with a survey of CNA participants' experience and a focus group on LTCO perceptions of the impact of the training. The focus group with 4 LTCO trainers was audio recorded, transcribed, and analyzed for themes.

Results: Between 32-44 CNAs participated in each of 3 training sessions. Nearly all (90-97%) survey respondents were confident or very confident with the training topic (talking to a resident about what matters, responding to resident problem behaviors by using IDEA!, and providing cross-cultural care) post-training. Two main focus group themes emerged reflecting a bidirectional impact: the training created a safe space for CNAs to interact with LTCO, shifting the relationship from adversarial towards collaborative, and empowered CNAs to make practice transformations.

Conclusions: This CNA training model empowered frontline caregivers with practical AF care strategies and facilitated a sense of shared purpose between LTCO and CNAs. This study lays the groundwork for ongoing collaboration and supports continued refinement of this easily scalable, replicable, and sustainable model of CNA education that improves care for older adult NH residents.

A109

Conducting ward rounds with older patients living with frailty:

A modified Delphi study

L. H. Andersen,^{1,2} B. Løfgren,^{1,2} M. Skipper,^{3,2} R. Jensen.³

1. Department of Internal Medicine, Regionshospitalet Randers, Randers, Denmark; 2. Department of Clinical Medicine, Aarhus Universitet Faculty of Health, Aarhus, Denmark; 3. Region Midtjylland Koncern HR Udvikling, Aarhus, Denmark.

Background

Conducting ward rounds is a core medical skill. Frailty, an age-related condition, complicates ward round conduction. Although common, there is no consensus on how to conduct ward rounds for older patients with frailty. Therefore, our objective was to identify consensus-based elements for a curriculum addressing this gap.

Method

A focus group qualified a modified five-round Delphi study. Experts in Geriatric Medicine and medical communication were invited to participate. Through participants' comments and an iterative and thematic approach, items were identified and refined before participants assessed for consensus. Consensus was defined as 75% of participants voting 7-9 on a 1-9 Likert scale. Items without consensus returned to the next Delphi-round with elimination if no consensus was reached after the second assessment.

Results

Eight experts in Geriatric Medicine were invited to the focus group and 35 experts in Geriatric Medicine and medical communication were invited to the Delphi study. Response rates were 74%, 81%, 86%, 72%, and 85% in Delphi rounds 1-5, respectively. A total of 108 items reached consensus. Items were organized into four themes: 1) ward round preparation, 2) ward round conduction, 3) competencies, and 4) circumstances related to the patient group. Each theme was divided into sub-themes, as shown in Table 1. Ward round preparation and conduction involve comprehensive management, including a holistic patient history review and environmental enhancements such as noise reduction. Competencies and patient circumstances related to the patient group included knowledge, skills, and attitudes to improve ward round quality, such as flexibility in interpreting patient cues and

adapting communication to changes in cognition, particularly when interacting with patients living with cognitive impairment.

Conclusion

We identified 108 items for conducting ward rounds with older patients living with frailty. Items were categorized into four themes: Ward round preparation, ward round conduction, competencies, and circumstances related to the patient group.

Table 1: Themes and sub-themes

Themes	Ward round preparations	Undertaking ward round	Competencies	Circumstances related to the patient group
Sub-themes	Current patient state	Setting and circumstances	Adjustment of language to meet patient needs	Patient characteristics
	Previous conditions and hospitalizations	Introduction	Management of meetings and prioritization	Ward round characteristics
	Treatment and examination planning	Negotiating agenda	Flexibility	Patients living with cognitive impairments
	Patient preparation	Shared decision making	Building relationship	Patients living with delirium
	Interdisciplinary collaboration	Summarizing and closing	Credibility/reliability	Relatives/informal caregivers
		Short- and long-term planning	Patient involvement	

A110

Needs Assessment for Geriatric Oncology Curriculum Development

C. T. Williams,^{1,3} M. Abdallah,² R. Chippendale,² J. Driver,³ M. Martinchek,³ A. Schwartz,³ C. Dumontier.³ 1. Gerontology, Harvard Medical School, Boston, MA; 2. Boston University, Boston, MA; 3. VA Boston Healthcare System Jamaica Plain Campus, Boston, MA.

Background: Despite older adults comprising 60% of newly diagnosed cancer patients, training in geriatric assessment and management (GAM) for oncology fellows remains limited. We performed a mixed-methods needs assessment to inform the development of a curriculum for a 1-month elective for Geriatric Oncology (GO) fellows in the VA Boston Oncology Clinic (VABO) using (1) unstructured interviews with key stakeholders and (2) chart review to elicit patient population needs.

Methods: Unstructured interviews via email and virtual meetings were conducted with key stakeholders: GO fellows (2), the geriatrician at VABO, and the GO Program Director. On chart review, 110 veterans aged ≥ 65 with cancer were identified who received GAM from a geriatrician in VABO from 2/16/2019 – 9/6/2023. GAM documented by the Age-Friendly 4Ms (Mind, Mobility, Medications, Matters Most) was evaluated using content analysis of notes to identify the most prevalent issues affecting the veteran cancer population.

Results: Unstructured interviews revealed that the main goal of the elective was to create ways for GO fellows to incorporate geriatric principles consistently and sustainably into their oncology practices. Interviews also emphasized the importance of the Matters Most domain. Chart review revealed that among the 110 older veterans, polypharmacy (87 [79.1%]) and mobility issues (79 [71.8%]) were the most prevalent concerns identified. The Matters Most domain was frequently assessed (106 [96.4%]), and most veterans had documented healthcare goals, life-sustaining treatment, and advance directives (95 [85.5%]).

Conclusions: Older cancer patients have frequent needs related to the 4Ms, with the domains most likely to be impaired in older veterans with cancer receiving care in VABO being Medications and Mobility. The results informed the generation of 3 objectives for our 1-month curriculum: (1) screen for polypharmacy and engage with clinical pharmacists to consider deprescribing potentially inappropriate medications, (2) screen for falls and mobility limitations with objective performance measures, and (3) assess and act on what matters to an older cancer patient. This curriculum will be implemented in May 2024 and evaluated in June 2024 using chart content analysis.

A111

Teaching How to Teach: Empowering Geriatrics Fellows as Educators

S. Zhitomirsky, O. Amir, L. Hansen, H. Fernandez. *Brookdale department of geriatrics and palliative medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: The American Geriatrics Society and Association of Directors of Geriatric Academic defines the ability to teach the principles of geriatric care and aging-related healthcare issues to other healthcare providers as a core competency for a fellowship-trained geriatrician. Prior teaching experience varies among geriatrics fellows, and structured mechanisms to develop fellows as teachers are lacking. This project seeks to empower fellows as educators by designing and implementing a self-motivated learning activity on a geriatrics inpatient service at a large urban academic hospital.

Methods: Fellows taught two or more sessions for medicine residents who do a mandatory rotation on the inpatient geriatrics service. Attending physicians on the service received a faculty development session to guide them on the use of a direct observation tool and how to give feedback to fellows on their teaching skills. Fellows completed surveys about their confidence as clinical educators before and after the intervention.

Results: The project began in August 2023, with completion expected in February 2024. Preliminary results from 4 out of 11 fellows expected to participate show that 4 fellows completed their teaching sessions and 2 received written feedback. All participants rated their confidence in their ability to teach basic geriatric concepts to residents as higher after the intervention than before it. At the time of the AGS presentation, we will have complete data on pre and post-survey results.

Conclusions: Fellows in internal medicine subspecialties are in a unique position as teachers of residents as they have recently graduated residency themselves, are often in close communication with residents, and are on the verge of stepping into faculty positions in which they are expected to take part in the education of team members and patients. This intervention offers fellows a unique opportunity for observation by a faculty member while they teach geriatrics to medicine residents, followed by specific and meaningful feedback. We hypothesize that this intervention will enhance their confidence as educators.

A112

Physical Restraints in Geriatric Patients

W. McIntosh. *Geriatric Medicine, St. Luke's Hospital, Easton, PA.*

Background

Physical Restraints (PR) are often used in hospitals to avoid falls and disruptions to medical management, but comes with associated risk. We attempt to reduce the number of orders for PR among admitted geriatric patients.

Methods

A retrospective analysis was conducted by review of admissions across our institution with an interval period from September 2022 to January 2023, to identify the use of restraints in non- ICU admitted patients ≥ 65 years. 14,078 patients coded as non-ICU with no behavioral health consultation were identified. From this sample, 4.2% (597) of patients received orders for physical restraint. With these findings, study investigators made the unanimous decision to attempt to address this trend, through providing educational sessions to nursing staff and medical providers, respectively. We reviewed institutional restraints policies, as well as conducted literature review to assess for adverse effects of alternate management to physical restraints. Phase 1 of study (February 2023 to April 2023.) included relevant education to providers. For Phase 2 of study (May 2023 to July 2023.), we made an EPIC smart text describing alternate interventions to restraints for the management of delirium.

Results

The mean age of patients who were restrained was 82.5 years (SD=8.2). Age range of 65 to 102 years. During pre-intervention phase a total of 14078 patients met screening criteria of which 597 patients were placed on restraints (4.2%). At the end of phase 1 intervention, of 282/8304 restraints (3.4%). At the end of phase 2 intervention, of 175/8304 patients required restraints (2.1%). We noted a 50% reduction in orders for physical restraints in both patient samples with or without psychiatric/ behavioral health consultation.

Conclusion

Our investigation indicates that through the provision of educational programs to hospital providers, which address alternative measures to restraints, one will continue to experience lower rates of restraints, and higher rates of alternative measures, with proven success.



A113

A Safer Discharge for Geriatric Patients: A Novel Curriculum for Internal Medicine Residents Using the 4 M's

U. Ashraf, D. Federonick, L. Whitesides, T. Alchalabi. *Geriatrics, George Washington University Medical Faculty Associates, Washington, DC.*

Background

Internal medicine residents organize many discharges, but often do not receive training on navigating the process or how to write their summaries. There have been workshops created for residents to review discharge summaries and to incorporate the 5M's into primary care however none have taught how to orchestrate successful discharges using the 4M's. We sought to address this gap with a novel curriculum teaching internal medicine residents how to use the 4M's to improve hospital discharges.

Methods

Over the course of 5 weeks, approximately 90 internal medicine residents took part in this workshop. It consisted of a one-hour didactic session reviewing the 4M's of geriatrics and applying them to discharge planning, followed by small groups in which residents evaluated discharge summaries and reframed the cases using the 4M's. We asked the residents to identify concerns with discharging older adults from the hospital prior to the session, then asked after the session to identify the 4M's, important aspects to consider on discharging geriatric patients, and how likely they are to use the 4M's framework for discharge planning in the future.

Results

Pre-survey results from internal medicine residents were obtained over 5 weeks. Thirty-seven responses to the question "What makes you uncomfortable when discharging patients from the hospital?" were recorded. Answers highlighted resident's concerns about medication adherence, and drug interactions (14/37, 38%); adherence to and obtaining follow up appointments (22/37, 59%); and social determinants of health (9/37, 24%). Post-survey results are still pending at the time of submission.

Discussion

This workshop expounds on previously developed resident education on the 4M's in primary care by focusing on transitions of care management. The curriculum utilizes the geriatrics 4M

framework to improve resident understanding of transitions of care and to prepare them for the common obstacles faced when discharging elderly patients.

Sources

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A114

Medical Foster Home Training – Pilot Study

A. Tasleem. *The University of Texas Health Science Center at San Antonio, San Antonio, TX*.

18 caregivers who operate Medical Foster Homes under contract with the Veterans Association participated in training that focused on blood pressure, stroke, and infections, given by members of the Geriatric Care Team at Audie L. Murphy VA Medical Center. Participants were provided 2 hours of training on topics that frequently effected the patients in their care. There was a three-fold evaluation of the effectiveness of the training in this Pilot Study: 1) caregivers were assessed on their knowledge of the topics prior to training using an 11-question True-or-False quiz, and then assessed again, 2) caregivers answered a questionnaire about their perceptions of the training, and 3) caregivers filled out a Burnout Inventory on the same day as the training to determine current stress levels.

The knowledge assessment had 3 true-false questions about blood pressure, 3 about stroke, and 5 about infections. The average number correct prior to training was 87% and after training the correct answers rose slightly to 91.5%.

The participants were asked to evaluate the quality and relevance of the training after it was completed, using a scale from 1 to 5, with 5 being the highest score. Five of the questions were asked in general about the quality of the training (clear objectives, achieved objectives, credible and unbiased, effective, and expert faculty) and four questions were asked specifically how relevant the training was to the caregiver (knowledge increase, relevant to caregiver tasks, will be applied to the job, valuable learning experience). Based on the responses, the training was quite effective. 92% of the questions were given the highest score; the Quality questions earned 394 out of a possible 400 points (98.5%) and the Personal Relevance questions earned 311 out of a possible 320 points (97.2%).

Participants had an opportunity to provide an open-ended response about the training. Six of the participants endorsed learning the best practices for taking blood pressure and/or respiration, and 5 reported learning more about signs of stroke. Two to three participants endorsed learning more about: infections, the need for vigilance, how to respond to signs of stroke, and functionality of breathing device aids.

A115

Using a needs assessment survey to develop a geriatrics curriculum for internal medicine residents

O. A. Bernal, C. Gordon, K. Y. Hsu, P. Chen. *Medicine, University of California San Francisco, San Francisco, CA*.

Background: Many internists will graduate from internal medicine (IM) residency with little formal geriatrics education despite the high likelihood that they will care for older adults during their careers. This presents an opportunity for IM programs to enhance geriatrics education. We sought to understand the experience of IM residents and their perceived competency in core geriatrics topics to inform the development of a geriatric curriculum for IM residents.

Methods: Using the Association of Directors of Geriatric Academic Programs minimum geriatrics competencies for IM, we

identified 17 core geriatrics topics to include in a needs assessment survey for IM residents in an academic medical center. The anonymous survey sought to understand residents' perceived competence in managing core geriatrics topics. Using a 3-point Likert scale, residents indicated whether they agreed, felt neutral, or disagreed with the statement "I feel competent in my knowledge of and/or ability to manage" each topic. We then categorized the topics using the 5Ms framework (medication, mobility, mentation, matters most, and multi-complexity). We collaborated with the IM program leadership to administer the survey using a QR code at noon conference and a mandatory core block curriculum session to achieve maximum reach. We used descriptive statistics for data analysis and identified geriatrics core topics for the development of a half-day case-based geriatrics curriculum to be incorporated into the existing 2-year ambulatory core block curriculum for the second and third-year (R2/R3) IM residents.

Results: 28 R2/R3 residents completed the survey. The topics that residents felt less competent in (>70% neutral or disagree) were: hospital-associated disability (93%), functional assessment (85%), sensory deficits (81%), incontinence (79%), frailty (78%), levels of care (71%), and fall risk (71%). We developed a vignette of an older adult in primary care, utilizing large-group and small-group one sessions to cover the core topics.

Conclusion: This needs assessment survey identified the geriatrics topics that IM residents felt less competent in managing. This survey can inform a geriatrics curriculum that will address the perceived gap in the residents' knowledge in the care of older adults. The curriculum will be implemented in January 2024.

A116

Assessing Structural and Social Determinants of Health Curriculum in a Geriatric Medicine Fellowship Program

C. F. Li, V. G. Shastri, L. M. Haddock. *Geriatrics, Stanford University, Stanford, CA*.

Background

Defined by the World Health Organization as the non-medical factors that influence health such as racism and access to safe housing, structural and social determinants of health (SSDOH) are essential factors that contribute to health disparities. Prior studies have shown that SSDOH particularly affect the geriatric population, an already vulnerable group. While SSDOH curricula has become more integrated into undergraduate medical education, related curricula in graduate medical education is limited, though considered a core aspect of medical knowledge in Geriatrics per the Accreditation Council for Graduate Medical Education. Thus, the purpose of this quality improvement project is to assess the current SSDOH curriculum in a geriatric medicine fellowship program.

Methods

A needs survey was distributed electronically to fellows of a single geriatric fellowship program from 2017 to present. The survey asked participants regarding familiarity of SSDOH, perception of importance of SSDOH on health status, comfort in screening and assessing for SSDOH, and their experience in learning about SSDOH in fellowship.

Results

A total of 13 fellows responded to the survey, with a response rate of 65% (13/20). Most of the respondents are either extremely familiar or very familiar with SSDOH (62%), and think that SSDOH play an extremely or very important role in their patients' health (85%). However, the majority feel only somewhat comfortable or even not at all comfortable with screening for SSDOH (69%), and 21% indicated that they did not learn about SSDOH in their training.

Conclusions

Geriatric medicine fellows recognize that SSDOH have a vital impact on health outcomes however many are not comfortable with screening for these factors. Next steps are to develop a strengthened standardized curriculum that educates future geriatricians on practicing inclusive care for a rapidly growing vulnerable population.

A117

Development of a Geriatrics Clinical Skills Workshop for Internal Medicine Residents

M. Bolano,¹ K. Borthwick,² E. Cook,¹ C. C. Lindsay,¹ V. Wong.¹
1. Geriatrics, University of California Los Angeles, Los Angeles, CA; 2. Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, CA.

Background:

The AGS Annual Meeting 2023 highlighted updates to the Geriatrics competencies for residents. We utilized these to improve our institution's residency curriculum in Geriatrics using the 5Ms framework.

Methods:

We created a Geriatrics clinical skills workshop for second and third year residents (N=32). Our first workshop addressed mobility and medications. We briefly reviewed polypharmacy and fall risk followed by two interactive stations. Station 1 utilized a patient volunteer to address gait assessments, fall risk, and assistive device use. Station 2 covered polypharmacy with a case discussion utilizing Beer's pocket guide and online deprescribing tools. QR codes were provided for the following resources: Beer's list, gait exam videos, CDC STEADI falls algorithm, Tinetti gait and balance tool, Deprescribing.org, and GeriKit app. We administered an evaluation to assess pre-workshop clinical practice on key concepts, self-confidence via Likert scale for teaching topics, and general feedback.

Results:

Evaluations showed that prior to the workshop, very few trainees administered gait and balance assessments (Figure 1). All participants rated the workshop as very good (4) or excellent (5) in educational content, teaching methods used, relevance to clinical rotations, and overall quality of the session. Learners "appreciated hands on multi-modal learning" and commented on the practical skills. They found it "helpful to have a patient demonstrate gait/balance assessments." Some reported "I learned so many little takeaways regarding medications" and thought the session "provided great resources."

When asked to identify one thing they would do differently learners intend to "assess gait more formally," and "provide exercises that can be done at home." Additionally, learners plan to "spend more time evaluating polypharmacy for older patients and think about med cascade," work on "de-escalation of meds," and "examine patient barriers to med adherence."

Conclusions:

A geriatric clinical skills workshop is an excellent way to increase learner awareness of geriatric syndrome and clinical tools. We intend to address the remaining 5Ms at our second workshop in the spring. We aim to make these sessions a regular part of the curriculum for second year residents.

A118

Ambulatory Educational Needs Assessment of Recent Geriatric Fellowship Graduates

G. Perez-Benzo, C. Kuwata, H. Fernandez. *Icahn School of Medicine at Mount Sinai, Rolling Hills, CA.*

Background:

Given the vulnerability of older adults and their desire to age at home, their needs are best served in the ambulatory setting. Despite the growing need for ambulatory care, however, ACGME requires geriatric fellows to spend only 33% of their training in the ambulatory setting. To address this limited training window and in response to the updated ACGME geriatric milestones published in 2021, this project was designed to assess our ambulatory curriculum with the goal of improving the curriculum to produce graduates competent to practice in the ambulatory setting. As part of the initial needs assessment, recent fellowship graduates were interviewed regarding their ambulatory educational experience.

Methods:

18 recent graduates (2020-2022) from Mount Sinai's geriatric and integrated geriatrics-palliative care fellowship were interviewed to explore their perceptions of the fellowship's educational strengths and weaknesses in the ambulatory setting, and its impact on their career choice.

The recordings were transcribed by Transcription Wing (a service of CiviCom). A codebook was created and modified using inductive and deductive coding processes. Each transcript was coded in the Dedoose Software by two different investigators and then disagreements were reviewed and resolved to ensure intercoder reliability. The codes were analyzed to identify themes that emerged from the graduates' experiences.

Results:

Six of 18 (33%) respondents are practicing in an ambulatory setting. Preliminary analysis suggests that graduates wanted more education in topics of dementia, administrative management, and geriatric assessment. Twelve of 18 (66%) respondents reported that the ambulatory experience influenced their career plans for choice of practice setting. Skilled precepting was identified as a strength of the ambulatory experience by most respondents.

Discussion:

The need for expert geriatric ambulatory care will grow in the coming years. Our results suggest opportunities to improve ambulatory care training during the geriatrics fellowship experience. The literature on this topic is sparse. Possible interventions include enhancing the curriculum with additional ambulatory topics, maximizing the learning opportunities in preceptor sessions, and rethinking the fellowship schedule to better maximize the educational experiences in the ambulatory setting.

A119

Development and Evaluation of an Educational Tool: Making Abstracts Easy

R. L. Ta,¹ M. Duggan.^{1,2} *1. Division of Geriatrics, Vanderbilt University Medical Center, Nashville, TN; 2. GRECC, VA Tennessee Valley Health System, Nashville, TN.*

Background: The ability to create a scientific abstract is essential to disseminate scholarly work and advance academic careers. Yet, few practical tools exist to help trainees effectively create abstracts. We sought to develop and evaluate a tool for geriatrics trainees to create abstracts.

Methods: Based on best practices in the literature and AGS online resources, we distilled key steps of creating abstracts into a practical tool. We developed a REDCap survey to disseminate and evaluate the tool. Outcomes included number of people accessing the tool and their role, perceived usefulness, and open-ended feedback. The survey was e-mailed to trainees and clinicians on the Geriatrics Fellows Learning Online And Together listserv in November 2023.

Results: The **Figure** shows the 1-page tool. Of 700 individuals, 32(5%) accessed the tool [17(53%) fellows, 6(19%) fellowship program directors, 9(28%) others]. Of 3 completed responses (0.4% response rate), 100% found the tool to be somewhat or very useful. Open-ended feedback found links to resources helpful and suggested changing the timeline.

Conclusion: Early feedback suggests a new educational tool for abstract development may be useful to trainees. Further feedback on the tool is warranted.

Easy Abstract Guide: 10 Practical Tips for Geriatrics Trainees	
1	Learn about abstracts <ul style="list-style-type: none"> <input type="checkbox"/> Review resources on best practices <ul style="list-style-type: none"> • AGS Webinar Recording on Abstract Writing • Equator Network for abstract reporting guidelines for various study types <input type="checkbox"/> Review examples of abstracts (AGS 2023 Abstracts)
2	Learn about the meeting <ul style="list-style-type: none"> <input type="checkbox"/> Review aims of the meeting to ensure goodness of fit <input type="checkbox"/> Read AGS author guidelines and submission categories
3	Pick a project <ul style="list-style-type: none"> <input type="checkbox"/> Pick a project and category that is feasible given the time you have. Here are some low hanging fruit: <ul style="list-style-type: none"> • 2-6 weeks of time: case study or series, ethics • ≥ 3 months: QI, cross sectional survey, analyzing existing datasets
4	Plan your timeline <ul style="list-style-type: none"> <input type="checkbox"/> Make a generous timeline, working backwards from submission deadline <ul style="list-style-type: none"> • ≥ 2 days to submit on submission website • ≥ 2 weeks for co-authors to review and make edits
5	Prepare to write <ul style="list-style-type: none"> <input type="checkbox"/> Draft a shell of your abstract using the appropriate reporting guideline for your study type on Equator Network <input type="checkbox"/> Draft your study objective in one sentence <input type="checkbox"/> Draft a shell of a table or figure to visually display results (if possible)
6	Write the abstract <p>Title:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Make it interesting; ideally include what you did and what you found <input type="checkbox"/> Consider a hook then a “,” followed by intervention, type of study, setting <p>Background:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 sentence on topic importance/relevant to audience <input type="checkbox"/> 1 sentence on the knowledge or evidence gap (can combine with first sentence) <input type="checkbox"/> 1 sentence on objective(s) of study <p>Methods:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Describe in as much detail as possible. <input type="checkbox"/> Sequence as follows (or per reporting guideline): Study design, Setting and Participants, Intervention, Outcomes <p>Results:</p> <ul style="list-style-type: none"> <input type="checkbox"/> General information (number of participants, demographics) first. <input type="checkbox"/> Report outcomes in same order as stated in objective and methods <input type="checkbox"/> Consider table or figure (can help with character count) <p>Conclusion:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 sentence summarize study findings, without overstating (optional) <input type="checkbox"/> 1 sentence on implications for clinical practice, research, education, or policy
7	Proofread <ul style="list-style-type: none"> <input type="checkbox"/> Check word/character count, be as succinct as possible <input type="checkbox"/> Active voice when able <input type="checkbox"/> Abbreviate only if you use abbreviation at least twice
8	Get feedback <ul style="list-style-type: none"> <input type="checkbox"/> Send to co-authors for review, consider cloud-based document for multiple people to edit at once (e.g. Box, OneDrive, Google documents)
9	Submit <ul style="list-style-type: none"> <input type="checkbox"/> Enter all information into submission website, have payment ready
10	Reuse <ul style="list-style-type: none"> <input type="checkbox"/> Find the next meeting that accepts encore presentations where you can submit the same work again

AGS-American Geriatrics Society

Figure. An educational tool for geriatrics trainees to create abstracts

A120

Accuracy of Medical Students’ Self-Assessment on a Geriatrics Standardized Patient Activity

M. H. van Zuilen,¹ A. Sarasua,² M. Nery,¹ K. Hasel,² S. Bland.¹

1. Medical Education, University of Miami Miller School of Medicine, Miami, FL; 2. Medicine, University of Miami Miller School of Medicine, Miami, FL.

Introduction: Accurate self-assessment is an important meta-cognitive skill we expect our medical students to demonstrate. After completing a geriatrics standardized patient activity on fall risk assessment, students rated their performance on two physical exam components. We examined the agreement between students’ ratings and those of trained observers and faculty members. We also evaluated the impact of targeted interventions on rater agreement.

Methods: After taking the patient history during the SP encounter, students performed the Timed-Up-and-Go test (TUG) and the MSK exam of the shoulder the patient hurt during a recent fall. A trained observer watched the video and scored five elements of the TUG administration and 11 maneuvers of the shoulder exam using a three-point rating scale (0=not done, 1=done partially or incorrectly, 2=done correctly). Students reviewed their video and completed the same rating scale. Finally, a faculty member and geriatric medicine fellow reviewed each video and reached consensus on the ratings for each element. We calculated the percentage of agreement between the different raters in cohort 1 (N=48), implemented targeted changes, and re-evaluated rater agreement in cohort 2 (N=46).

Results: Percent agreement between the different raters for cohort 1 was as follows: student-observer – 70.1%, student-faculty – 70.6%; observer-faculty – 73.6%. Students’ total scores averaged 63.8% based on faculty ratings, 68.8% based on observer ratings, and 78.1% based on student ratings. To improve rating accuracy, we: 1) Re-trained observers; 2) Revised the rating scale to improve usability; 3) Gave students a hardcopy of the MSK exam checklist; and 4) Reviewed common TUG/MSK performance errors during their training sessions. In cohort 2, agreement between student-observer ratings was 87%. Overall performance improved, but students still rated their performance higher than observers.

Discussions: Although our interventions appear to have improved student-observer agreement, providing more opportunities for supervised practice in geriatric and non-geriatric clinical settings may be beneficial especially for students with poor insight as frequent feedback is associated with more accurate self-ratings. Observers also need ongoing training.

A121

Third year medical students report increased confidence in preparing advanced care planning after participating in a paired online module and structured patient interview

S. E. Merel, S. Padelford, J. J. Wright. University of Washington, Seattle, WA.

Background:

Our large medical school has an explicit focus on primary care and a substantial cohort of graduates pursue family medicine, pediatrics, and internal medicine and practice in a five-state region with few specialists in Geriatrics or Palliative Care. We sought to align with the American College of Physicians guidance that advanced care planning (ACP) is “best done in the outpatient setting before an acute crisis”. We modified an existing exercise within our 12-week required Internal Medicine clerkship to encourage students to practice ACP in the outpatient setting and to incorporate part of a national curriculum in primary palliative care developed by Aquifer, a non-profit developer of online curricula for health professions students.

Methods:

Students complete two Aquifer modules about primary palliative care and advanced care planning. Students then identify an appropriate patient in clinic with whom to have a discussion either about a surrogate decision maker, code status, the POLST form, or their overall goals and values. Finally, students write a brief note detailing their conversation to be included in the medical record and copied into a form reviewed by two Medicine clerkship directors. Students complete an online form describing the encounter and recording their impressions of the exercise. Two clerkship directors then use a standard rubric and consensus-based process to grade the exercises; the grade is included in their final clerkship grade.

Results:

All 108 students who have completed their clerkship in the first half of the 23-24 academic year completed this exercise with 106/108 (98%) receiving full credit in their grade. 96/108 (89%) agreed that this exercise was meaningful for patient care. 78/108 (72%) indicated that they were “much” or “moderately” more prepared for ACP conversations after completing this exercise and 62/108 (57%) thought they would “often” perform advanced care planning in their future careers.

Conclusions:

Students in our large, multi-state Internal Medicine clerkship successfully complete a structured Advanced Care Planning conversation with a patient after completing Aquifer online modules. Most students find the experience meaningful and gain self-confidence. Although often thought of as a high-level skill, clinical students are well situated to begin exploring the fundamentals of advanced care planning.

A122

Resident experiences of discharging older adults to skilled nursing facilities (SNFs)

B. Shi,¹ M. C. Fang,¹ A. D. Auerbach,² R. Sudore,¹ A. Lyndon,³ T. Bongiovanni,¹ J. D. Harrison.¹ 1. University of California San Francisco, San Francisco, CA; 2. Surgery, University of California San Francisco, San Francisco, CA; 3. New York University, New York, NY.

Background

Understanding residents’ knowledge and experiences of discharging patients to SNFs has the potential to inform training and clinical experience. This study aimed to describe residents’ attitudes and experiences of discharging older adults to SNFs.

Methods

We conducted a qualitative study within one internal medicine and one surgical residency program. Focus groups explored residents' experiences and knowledge around discharging patients to SNFs. Data were analyzed using thematic analysis.

Results

Twenty residents (n=10 medicine, n=10 surgery) participated in 6 focus groups. Regardless of specialty, residents had similar experiences with prior education and clinical exposures to SNFs being uncommon. Key themes related to how residents obtained knowledge, their attitudes towards planning discharge to SNFs and strategies to mitigate challenges are described in Figure 1.

Conclusion

Residents lack of formal education and clinical exposure to SNFs may be contributing to their attitudes of uncertainty and sense of lack of control during discharge planning. These results suggest that residency programs should adopt formal clinical curriculum and experience rotations or teachings on or at SNFs.

How knowledge is obtained:	
Learning-by-doing.	"All of it learned along the way, especially through the errors I've made" "You know, a lot of it is you're kind of learning as you go. And there's no, no kind of formal training in any of this process"
Through interdisciplinary teams	"The way that I've been learning here as an intern is hearing from social work and case managers about why a particular facility is not appropriate for a patient"
Common attitudes toward SNF discharges:	
A sense of urgency when discharging patients to SNFs.	"The patient has been in the hospital a long time and then all of a sudden you're rushing to get them out by X time because that's when the transport arrives and you need all the orders in place" "I think it's really the unpredictability of when... when will there be a bed? Is it today or in a week? And I think that unpredictability is really what makes everything feel like a rush."
A lack of control for both residents and patients.	"Unlike other patients, when we discharge people to SNF we actually don't have a say in when they're leaving. Like which day, or what time of day." "The transition being difficult is I guess what I feel is maybe like there's a lack of agency in terms of me being able to navigate the discharge process"
Concerns regarding ongoing care when patients are admitted to the SNF.	"I think there are two sources of stress for me. One is that patients who go to SNF are often really medically complex, and I worry that some of their medical care might fall through the cracks" "Maybe [SNFs] don't have the bandwidth to deal with the many complexities that some of our patients are dealing with"
Common strategies to mitigate challenges:	
Learning to anticipate discharges.	"But I think the biggest thing is just anticipation... so that you can plan ahead and understand things. ... and I think if you can anticipate what needs are going to be at discharge... I think it goes a long way because then you can basically start that whole process earlier" "I think just like always having something prepped... if you are trying to aim for a SNF discharge, just because of the unpredictability of like when they'll get accepted and, if they get accepted, if they're going to get a bed, just always having like that Discharge Summary ready"
Ensuring accurate and up-to-date discharge summaries.	"I think for me the priority is always the discharge summary and having an accurate view of the hospital stay." "From my perspective, I usually try to communicate what are the most important things from my standpoint, which are just really having accurate documentation. So, having a really good discharge summary."

**A123
Dementia Care Aware: A California Statewide Effort to Educate Primary Care Providers in the Detection of Dementia**

A. H. Chodos, C. Park, J. Rivera. *Medicine, University of California San Francisco, San Francisco, CA.*

Background: Alzheimer's disease and related dementias are underdiagnosed in primary care. Although early detection enables primary care providers (PCPs) to address modifiable risk factors that slow further decline, improve quality of life, and avoid medical and social crises, they report a lack of confidence in screening for and diagnosing dementia, among other barriers. In response, the California Department of Health Care Services launched Dementia Care Aware (DCA), an initiative led by the University of California, San Francisco, to introduce a cognitive screening approach and new Medi-Cal only benefit for annual dementia screening in people age 65 and older.

Methods: In spring 2022, we reviewed the literature and convened a state-wide stakeholder group of experts in dementia and primary care to develop the cognitive health assessment (CHA), an approach to screening for dementia in older adults. Focus groups with PCPs informed the production of online trainings, webinars, and podcasts to introduce the CHA and its adaptations for California's diverse populations. We collected evaluation data from the online trainings on participant's county, quality of trainings, and change in confidence to make practice change.

Results: From July 2022 to October 2023, 1,997 participants from 41 of 58 California counties completed online trainings and rated their overall average quality 4.5/5 (n=400). Of participants who completed a continuing education survey (n=220), 90% were "somewhat" or "very" confident in their ability to make practice changes.

Conclusion: Initial data are promising with regards to training quality and engagement. We are working with Alzheimer's organizations in the community to implement an outreach strategy to further disseminate our trainings.

**A124
Understanding the Lived Experiences of LGBTQIA+ Older Adults: A Historical Analysis**

M. H. van Zuilen,¹ R. Aggarwal,² C. D. Fields,² C. A. Turcios,³ C. H. Burton.⁴ *1. Medical Education, University of Miami Miller School of Medicine, Miami, FL; 2. Johns Hopkins Medicine, Baltimore, MD; 3. Pride Ctr for LGBTQIA2+ Diversity, University of Maryland Baltimore County, Baltimore, MD; 4. UCLA Health, Los Angeles, CA.*

Introduction: LGBTQIA+ older adults face unique challenges as they age and have a higher burden of physical and mental health concerns compared to their cisgender, heterosexual counterparts. The minority stress and allostatic load models are useful theoretical frameworks to explain these health disparities, but on a more humanistic level, a fuller understanding of the shared lived experiences of LGBTQIA+ older adults – both traumatic and uplifting events – will aid healthcare providers in delivering more personalized care to this community.

Methods: We performed a historical analysis starting from the 1940s and 50s, the era during which many of our current octogenarians and nonagenarians who identify as part of the LGBTQIA+ community first started to consider their sexual orientation and gender identity. We identified the seminal events experienced or witnessed by this community and present these on a visual timeline.

Results: The historical analysis reveals a multitude of seminal events including: 1) the Lavender Scare of the 1940s and 50s – a time of "moral panic" during which non-heterosexual individuals were considered a security risk and were fired from federal government jobs; 2) DSM-I classification of homosexuality as "sexual deviation" in 1952; 3) the Stonewall uprising of 1969 that sparked the gay liberation movement; 4) the HIV/AIDS epidemic starting in the 1980's; 5) "Don't ask, don't tell" US policy on military service of non-heterosexual people starting in 1994; 6) the 2015 Supreme Court declaration of same-sex marriage as a constitutional right nationwide; and 7) the 2023 record-setting anti-LGBTQ legislation and state bans on gender affirming care.

Discussion: Healthcare providers have a responsibility to understand the historical and modern sources of stress that affect LGBTQIA+ older adults and contribute negatively to physical and mental health outcomes. It is also important to recognize that through these adversities, LGBTQIA+ older adults have developed resiliency that could prepare individuals for the aging process and improve health outcomes. A deeper understanding of the lived experiences of our older LGBTQIA+ population is an essential component of gender affirming and trauma informed care.

A125

Evaluation of a Training Course for Certified Nursing Assistants
 S. E. Ross,¹ S. Murphy,² J. Severance,¹ S. Rivera-Torres.¹ 1. *Internal Medicine and Geriatrics, University of North Texas Health Science Center, Fort Worth, TX*; 2. *University of North Texas Health Science Center, Fort Worth, TX*.

Background: The optimal performance of nursing homes depends significantly on training their personnel, especially certified nursing assistants (CNAs), who provide the bulk of daily care for residents. There are several challenges to delivering effective training in the long-term care (LTC) setting. One of the greatest challenges is high turnover rates, which interfere with the continuity of care and necessitate the constant training of new staff. The etiologies of higher turnover rates are complex but generally are due to low wages, lack of advancement opportunities, and challenging work conditions. This study evaluates perspectives, experiences, and feedback surrounding curriculum development for CNAs.

Methods: We implemented eight one-hour sessions presented over two mornings at a local nursing home in Fort Worth, Texas, USA. CNAs were recruited to participate in training in March 2023 and completed a survey after each training day to capture respondents' demographics and experiences. A total of 38 participants enrolled in training, of which 71% (n=27) were CNAs.

Results: Most participants identified as females (n = 38, 100 %), Black -non-Hispanics (n = 15, 39 %), ranging in age from 20 to 69 years, and English as their preferred language (n = 38, 100 %). Upon review of the three largest employers from training, the overall retention rate of participants was 72% 7-months post-training. Eight themes were discussed, and five were highly rated as strongly agreed by participants.

Conclusions: The training program met its objective of improving CNA confidence in the focus areas. The program's holistic approach and the effectiveness of skilled trainers were highlighted as its key strengths. Participating CNAs appreciated the interactive activities, which was an intentional effort to facilitate learning and engagement. The study also emphasized the importance of CNAs' input in curriculum development to align training with real-world needs. The success of this program underscores the need for continuous improvement and collaborative strategies to develop future LTC training initiatives for CNAs.

A126

How Knowledgeable and Comfortable Are Senior Medical Students with Commonly Used Cognitive Assessments

K. P. Padala,^{1,2} P. Mendiratta,² H. Keller,¹ I. J. Moore,¹ L. L. McGhee,¹ K. Veluvolu,^{1,2} J. Wei,² P. R. Padala.^{1,2} 1. *Central Arkansas Veterans Healthcare System Eugene J Towbin Healthcare Center, North Little Rock, AR*; 2. *University of Arkansas for Medical Sciences, Little Rock, AR*.

Background: Medical students usually rotate through geriatrics as an elective during their senior year. Their experience with cognitive assessments is limited. The objective of this education model was to assess and improve medical student knowledge on cognitive assessments.

Methods: The curriculum consisted of one hour of didactics, clinical experience with patient contact, followed by presentation/treatment plan development. This was repeated twice in successive weeks and included a session of role-play administering a brief cognitive assessment. The didactics portion was enriched by interaction with an interdisciplinary team of providers including neuropsychologists, geriatricians, social workers, and geriatric psychiatrists. Knowledge of medical students was assessed on six commonly used cognitive assessments: Mini Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), Saint Louis University Mental Status (SLUMS), Mini-Cog, Modified Mini Mental State Exam (3MS), Short Blessed

Test (SBT). Pre- and Post-assessments included questions about their knowledge of each test, best test to use for executive function and for testing subtle cognitive impairment, and the student's confidence in administering the assessments. Pre-assessment also included questions about their familiarity of these scales.

Results: 130 students participated. Post evaluation was available on 89 (68%) students. Pretest results suggested that students were initially familiar with MMSE (74%), MoCA (82%), SLUMS (64%), and Mini-Cog (62%), somewhat familiar with 3MS (33%), and not familiar with SBT (12%). Student performance improved in correctly identifying optimal scores for all 6 assessments. Student performance also improved in identifying preferred assessments for testing for executive function and subtle cognitive impairment. Student confidence in administering all six assessments appears to have improved. At posttest, students were most confident administering MoCA (76%), SLUMS (64%), and Mini-Cog (58%).

Conclusion: Training senior medical students on cognitive assessments will help improve their knowledge and perceptions on their ability to do cognitive assessment.

A127

Development and Pilot Evaluation of a Cross-Cultural Care and Communication Toolkit for Certified Nursing Assistants

E. Chang,⁴ T. Sivers-Teixeira,¹ E. K. Thayer,¹ S. Chen,¹ C. Penate,¹ M. Sterling,³ T. Rosen,² B. Olsen.¹ 1. *University of Southern California Keck School of Medicine, Los Angeles, CA*; 2. *Emergency Medicine, Weill Cornell Medicine, New York City, NY*; 3. *General Internal Medicine, Weill Cornell Medicine, New York, NY*; 4. *Geriatrics, Weill Cornell Medicine, New York, NY*.

Background: Practicing culturally sensitive communication in nursing homes is essential in increasingly racially/ethnically diverse resident and workforce populations. We developed *Care Matters* as a practical toolkit to help certified nursing assistants (CNAs) improve cross-cultural care and communication skills. Guided by the cultural humility frameworks and Training-the-Trainers module, *Care Matters* focuses on four conceptually-driven factors: Curiosity; Awareness; Root-out-Bias; and Empathy. This study assessed its preliminary acceptability and feasibility for the first time.

Methods: USC Geriatric Workforce Enhancement Program (GWEP) trained Long-Term Care Ombudsmen (LTCO) to become trainers to deliver *Care Matters* as part of a larger educational program to improve geriatric competencies of CNAs. Four LTCO delivered *Care Matters* in-person to 32 CNAs across five nursing homes in Los Angeles in 2023. A concurrent iterative mixed-methods design was used to evaluate the program. CNAs completed a post-course survey. Trainers completed stakeholder focus group interviews after the sessions. Qualitative data was coded and analyzed.

Results: The CNA participants were racially/ethnically diverse (70% Hispanic, 16.3% Asian/Pacific Islander, and 13.3% African American) and most (73.3%) were female. After the session, all participants recognized the importance of learning cross-cultural care (100%). Nearly all were confident or very confident in providing cross-cultural care in improving their work (96.8%) and indicated that they learned something new (90.3%). Qualitative interviews revealed that the course was acceptable (affective attitude; training coherence), feasible (perceived effectiveness; ease of implementation), and offered ways to modify the content (strategies to address racially-charged comments directed at CNAs).

Conclusions: We developed and piloted the first cross-cultural communication training course tailored to CNAs, which was feasible and acceptable among workforce and key engaged partners. Our findings warrant further intervention refinement, efficacy testing, and potential scalability testing to workforce at large.

A128

Perioperative Age-Friendly Education Initiative

H. Lander,¹ A. Medina Walpole.² *1. Anesthesiology, University of Rochester, Rochester, NY; 2. University of Rochester Medical Center, Rochester, NY.*

Perioperative care for our aging population is of paramount importance. It is imperative to develop standardized education for perioperative health care providers to understand Age-Friendly topics. We generated a geriatric focused education curriculum structured around the John A Hartford Foundation and the IHI's Age-Friendly Health Systems 4Ms of older adult care. We had two aims: (1) To evaluate the impact of the geriatric modules by asking learners to evaluate self-efficacy before and after completing the curriculum (2) To evaluate the impact of the geriatric modules by comparing physicians and non-physicians.

A needs assessment was completed with an anonymous RedCap Survey that was sent to faculty and staff at our Center for Perioperative Medicine (CPM). Likert scale with 4M's current versus desired confidence and utility was collected to identify high desire and low confidence topics. Informed by the results of the needs assessment, IRB approval was obtained, and five 30-minute recorded educational modules were developed with the following topics: (1) Frailty and the 4M's (2) Mobility Gait Assessment and The Timed Up and Go (TUG) (3) Medications: Polypharmacy and Nutrition (4) Mentation, MiniCog, (5) What Matters: HCP, MOLST, and Conversation Starters. De-identified pre and post surveys were sent via RedCap to CPM faculty and staff. Baseline demographics were obtained including highest level training, total number of years in practice and primary location of work. Linear regression analysis was used to examine changes in global measure of self efficacy at the end of the education session.

We found the lower the score on the pre-test, the greater the improvement in post-test score ($p < 0.001$). We also found that physicians had a greater change in score between the pre-test and post-test compared to non-physicians ($p=0.04$). Physicians scored 0.3 points higher than non-physicians after adjusting for pre-test scores and module type. Finally, there was no difference across the different modules.

We present a successful geriatric educational program that was implemented in an outpatient Center for Perioperative Medicine. This program was web-based and effective in improving self-efficacy and knowledge base of geriatric focused assessments and topics related to the 4M's of Age Friendly Health Care. Future expansion of this program will benefit developing programs such as the Geriatric Surgical Verification Program.

A129 Encore Presentation

Teaching the 4Ms in prelicensure interprofessional education

A. Mitchell, N. Ankam, M. Brucato, B. Salzman. *Jefferson Center for Interprofessional Practice and Education, Thomas Jefferson University, Philadelphia, PA.*

Background

The 4Ms framework for caring for older adults (Institute for Healthcare Improvement, 2020) enables opportunities to train healthcare students in principles of age-friendly care. The Jefferson Health Mentors Program is a required, experiential, interprofessional program that involves student teams from 11 professions engaging with a Health Mentor (HM)—a community dwelling adult with chronic conditions. This study investigated if exposure to the 4Ms framework increased students' confidence in describing and applying the 4Ms and their likelihood to consider them in future practice.

Method

Students were introduced to the 4Ms and questionnaires to assess the 4Ms. They interviewed their HM and surveyed their home and community to note assets and barriers to wellbeing in relation to

the 4Ms. Student teams shared about their HMs through presentations framed around the 4Ms. All students enrolled in HM Program in 2023 ($n=737$) received a post-program survey. Students reported their retrospective pre- and post-program confidence describing and applying the 4Ms (Likert scale; 1=Not at all Confident to 5=Very Confident); how easy or difficult it was for them to assess each M of their HM (Likert scale; 1=Very Difficulty to 5=Very Easy); how they approached assessing the 4Ms of their HM; and the likelihood that they would consider the 4Ms in their future practice (Likert scale; 1=Very Unlikely to 5=Very Likely). Friedman's and Wilcoxon signed-ranked tests were used for statistical comparisons.

Results

The survey response rate was 50% ($n=368$). According to paired Wilcoxon S-R tests, students reported higher confidence describing ($V=384$, $p < .001$) and applying ($V=280$, $p < .001$) the 4Ms at the end of year 1 than before entering the program. There was a small difference in students' perceived difficulty assessing each M of their HMs, $\chi^2(3)=49.4$, $p < .001$ ($W=.05$); What Matters was rated as easier than Mobility, Medications, and Mentation. Students used multiple methods to assess the 4Ms including natural conversation with HMs, observations in the home, and use of questionnaires. Students were very likely ($M=4.55$, $SD=.75$) to consider the 4Ms in their future practice.

Conclusions

Interprofessional education can expose students to the 4Ms early in their professional education. This can increase confidence and likelihood of students to consider using the 4Ms in future practice.

A130

From Gap to Creation: Integrated Geriatrics and Palliative Care Leadership + Life-skills Training

D. Afezollj, C. Kuwata, D. Watman, H. Fernandez. *Icahn School of Medicine at Mount Sinai, Rolling Hills, CA.*

Background: Graduates of geriatric and palliative care (GPC) fellowship programs are trained in delivering high value care and working expertly in interdisciplinary team. They often take on leadership roles soon after graduation. Formal GPC leadership curricula is not included in fellowship training and many graduates do not feel adequately prepared for these positions.

Methods: A leadership and life-skills 1 year virtual curriculum for integrated GPC fellows nationally was developed by content experts in GPC leadership and executive training. Content is presented during webinars that are a combination of didactics and small group discussions. Topics covered include leadership styles, emotional intelligence, effective communication, and feedback. Fellows are also offered individualized coaching sessions. Semi-structured qualitative interviews with graduate cohorts from years 2019-2022 were completed to assess impact of program. They were professionally transcribed and analyzed using a deductive coding strategy. Each transcript was coded by consensus and major themes identified by frequency of code citation.

Results: Qualitative interviews were completed with 33 GPC fellows (75% of all participants [$n=44$]). Most participants interviewed were in attending positions. All were engaged in clinical work and majority had additional responsibilities (educational, administrative). The most highly cited course skills were emotional intelligence, team management, goal setting/achievement, and wellbeing. The most valued aspects were ability to collaborate and network, perspective, leadership empowerment and development, applicability of course content, and focus on early career development through coaching. The coaching sessions were greatly appreciated and participants most often cited constructive feedback, reflection and perspective, goal setting/achievement, and confidence as benefits of these sessions.

Conclusions: This training course was effective in promoting leadership in GPC fellows and expands on many of the required ACGME fellowship training milestones, including interpersonal and communication skills, professionalism, and systems-based practice.

Such leadership training can be applicable for a vast number of post-graduate medical trainees from all fields. This educational model was well received and has the potential for wide dissemination.

A131

Educational needs assessment for medical students in asynchronous telehealth: a qualitative mixed methods study focused on care of older adults

J. T. Thomas,¹ H. H. Atkinson.² 1. Internal Medicine - Geriatrics, Atrium Health Wake Forest Baptist, Winston-Salem, NC; 2. Internal Medicine, Section on Gerontology and Geriatric Medicine, Wake Forest University School of Medicine, Winston-Salem, NC.

Background: Telehealth includes increasing modalities of care including asynchronous communication through the EMR, but focused studies and training are limited in this area. Modules and virtual simulations incorporating AAMC core competencies for telehealth have been shown to improve medical student confidence in performing telehealth, but potential gaps in asynchronous communication training warrant further evaluation.

Methods: This is a mixed methods qualitative study designed to evaluate the longitudinal effectiveness of telehealth curriculum for 4th year medical students. 29 students and 5 geriatrics faculty members with telemedicine experience provided responses to two asynchronous case simulations involving a patient electronic message. Students were provided with telemedicine modules to complete prior to the case simulations. Outcomes were assessed with rubric scoring based on AAMC competencies for telehealth and compared with faculty scores.

Results: Table: Asynchronous message response rubric scores.

Conclusions: Despite urgent symptoms and unstable vital signs, many 4th year medical students did not appropriately escalate urgent clinical concerns in telehealth messages. Though most students included appropriate clinical instructions in their response, there is a need for focused training in triage in asynchronous telehealth communications for older adults.

Results: Asynchronous message response rubric scores

	MS4	Faculty
Case 1		
R1: Recognize symptoms are mild and intermittent, and do not require urgent or emergent face-to-face intervention	100%	100%
R2: Provide counseling for patient regarding medication timing and appropriate follow up plan. Consider education regarding orthostatic hypotension	100%	100%
R3: Advise patient regarding red flag symptoms like worsening or prolonged dizziness or lightheadedness, vision changes, or syncope for which to stop medication and seek emergent care (ER)	69%	100%
Case 2		
R1: Recognize symptoms require escalation to face to face visit, recommend urgent or emergent care due to worsening symptoms	97%	100%
R2: Call the patient to contact directly due to urgent symptoms and unstable vital signs	31%	80%
R3: Advise patient to stop taking hydrochlorothiazide	52%	100%

29 medical students and 5 geriatrics faculty members were assessed with rubric scoring, R1-R3, developed based on AAMC Competencies for Telehealth. Case 1 included a simulated electronic message from an older adult describing mild symptoms after starting hydrochlorothiazide. Case 2 included the same patient with new red flag symptoms including syncope, oliguria, and anorexia as well as unstable vital signs.

A132

Hello, I'm the Doc on Call – Teaching Nursing Home Call Skills to Geriatrics Fellows

E. Bukowy,^{1,2} E. N. Chapman,^{3,4} C. O'Brien,^{1,2} A. Beckett.^{1,2} 1. Geriatric and Palliative Medicine, Froedert Hospital, Milwaukee, WI; 2. VA Milwaukee Healthcare System, Milwaukee, WI; 3. Medicine, University of Wisconsin System, Oregon, WI; 4. William S. Middleton Memorial VA Medical Center, Madison, WI.

Background: Managing acute issues in skilled nursing facilities (SNFs) via phone is an essential skill for Geriatrics fellows,^[1] but few tools exist to teach and assess this competency. Call simulations have been effective in other settings^{[2][3]}. We created a SNF call simulation to gauge fellows' knowledge and skills and improve perceived competence.

Methods: We developed four scenarios with common SNF issues. Geriatrics faculty and fellows sat in separate rooms, and faculty called fellows while portraying SNF nurses in one of the scenarios. Fellows responded as if on call. Faculty then offered teaching points. Fellows completed a survey of pre- and post-simulation self-rated competence, and fellows and faculty provided subjective feedback. We used paired samples t-tests to compare pre- and post-simulation self-rated competence and reviewed subjective comments for themes.

Results: Self-rated competence improved significantly in the ability to manage condition changes, interpret information and triage acute issues, and describe care limitations in SNFs. Fellow comments commended the realism of scenarios and noted increased confidence managing SNF calls. Faculty valued the opportunity to identify fellows' knowledge gaps and plan for oversight needed during call shifts.

Conclusions: The SNF call simulation was well-received by fellows and improved self-rated competence. Future work will create standardized scoring rubrics and assess progression of fellows' knowledge and skills over time.

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A133

Improving the Ambulatory Geriatric Curriculum for Geriatric Fellows – Needs Assessment

C. Kuwata, H. Fernandez. Icahn School of Medicine at Mount Sinai, Rolling Hills, CA.

Background:

Given the vulnerability of older adults and their desire to age at home, their health care needs are best served by ambulatory care. ACGME, however, requires geriatric fellows to spend only 33% of their training in ambulatory settings. To address this limited training window, and in response to 2021 ACGME milestones, this project aims to assess and improve our ambulatory geriatrics curriculum to insure graduates are competent in ambulatory practice. As part of an initial needs assessment, current geriatrics fellows were queried regarding ambulatory experience in fellowship.

Methods:

A survey to gauge fellows' self-efficacy with ambulatory domains was created by synthesizing the literature, Geriatric EPAs and ACGME Milestones. Content and face validity were reviewed by experts in ambulatory geriatrics. To assess for clarity and understanding, chief fellows evaluated the survey.

The survey was sent to 21 geriatrics or integrated geriatrics/palliative medicine fellows. Respondents were asked if they planned to practice ambulatory geriatrics after graduation. They ranked the 3 clinical and administrative topics they felt most and least prepared to manage independently. The survey also explored barriers to optimal ambulatory practice, and curricular interventions to improve the educational experience.

Results:

Of 21 fellows, 13 responded (62%), with 46% planning to pursue outpatient geriatrics. Fellows felt most prepared managing dementia's clinical course and caregiver distress, and taking comprehensive geriatric exams. They felt least prepared on durable medical equipment, recognizing elder abuse, diagnosing dementias, handling hazardous driving, dizziness, behavior disturbances in dementia, and managing

weight loss. Administrative challenges included billing, documentation, and time management. Barriers included paperwork, balancing inpatient/outpatient duties, and inadequate administrative support. Potentially helpful interventions included evidence-based guidelines for care

Discussion:

These survey results revealed multiple ways the ambulatory education can be improved in clinical and administrative knowledge. Potential curricular interventions include developing one page summaries of ambulatory teaching topics, and creating a “preceptor bootcamp” to help preceptors maximize learning during precepting sessions.

A134

Developing a Virtual Reality Simulation Pilot Course on Assisted Falls

V. Broderick,^{1,2} M. Chavez,¹ B. Barrett,¹ N. Arriola,¹ S. Bradley,¹ T. Bulat,^{1,2} H. Kaplan,² S. Mason,² H. S. Park,¹ J. Sprehe,¹ A. Ramrattan,¹ L. Cowan.¹ *1. VA James A Haley Hospital, Tampa, FL; 2. University of South Florida, Tampa, FL.*

Background: An immersive virtual reality (VR) simulation pilot course, “Assisted Falls VR Staff Training,” was developed as a quality improvement project from 2022 to 2023. This VR simulation was created to teach clinical staff about assisted falls as a patient safety concern relevant to patient care for older adults.

Methods: Mixed methods formative evaluation of the designed pilot, *Patient Falls Simulation*, VR application (app) included interview and survey data collection. VR learners were recruited from James A. Haley Veterans’ Hospital nurse volunteers in two pilot data collection periods. Volunteers included $N=18$ registered nurses (RN) and nurse technicians. Participants were immersed in three VR scenarios as a RN where a patient avatar fell while getting out-of-bed, ambulating, and transferring on-off toilet. The patient avatar was designed as an elderly male with known fall risk. The VR app depicted a workstation on wheels that permitted review of patient avatar clinical history. VR simulation course materials included pre-brief, debrief, and instructor guides. Pre- and post-tests were developed to evaluate changes in user assisted falls knowledge.

Results: The first pilot included twelve inpatient nurses participating in the VR simulation pilot course. A statistically significant increase in total assisted falls knowledge scores from pre-test ($M=6.92$; $SD=1.08$) to post-test ($M=9.17$; $SD=0.94$) were observed, $p=.002$. Revisions to the VR app were made after feedback from the first pilot to improve realism of the patient avatar and environment as well as improve course pre-brief and debrief content to enhance user learning. No statistically significant changes were observed in the second pilot with six long-term care nurses. Interviews findings indicated high acceptance of VR with inclusion of interaction and problem solving as a learning modality for simulation education.

Conclusion: This project developed a VR simulation pilot course for clinical staff training to address assisted falls as a patient safety concern for older adults. Formative evaluation findings support the use of VR simulation as an innovative approach to teach geriatric education.

A135

Getting into the Rhythm: Incorporating Geriatrics and Palliative Care Principles into the Management of Heart Failure

R. Lazarus, N. Blachman. *NYU Langone Health, New York, NY.*

Background: Core geriatric and palliative care principles are very important when caring for older adults with heart failure (HF). Given the increasing life expectancy of those living with cardiac disease, there are more older adults suffering from HF today than ever before. While medical education tends to focus on one condition in isolation, in clinical practice one encounters patients with a combination

of illnesses and chronic conditions that interact to impact the patients’ overall function. Bridging the gap between didactic learning and real-world patient encounters can benefit palliative care and geriatrics clinicians alike.

Methods: We developed a one-hour virtual teaching session which used a case-based approach to follow a fictional patient throughout a decade of his adult life in order to illustrate different aspects of HF. Some specific components of the presentation included the comprehensive geriatric assessment, HF illness trajectory, role of primary palliative care, components of home hospice, communication strategies for approaching difficult conversations, and the legal and ethical considerations of cardiac implantable electronic device (ICDs and pacemakers) deactivation. Participants were asked to complete post-intervention feedback surveys.

Results: The teaching session was piloted with faculty and trainees from our Geriatrics and Palliative Care division. Twenty-two participants completed post-intervention feedback surveys. 41% identified their specialty as geriatrics, 36% as palliative care, 9% as geriatrics and palliative care, and 14% as other. 41% identified their role as attending physicians, 9% as nurse practitioners, 36% as fellows, and 14% as residents. All participants agreed that the material covered was useful to their clinical practice; 91% strongly agreed with this statement. Prior to the session, 45% indicated they were comfortable applying geriatrics and palliative care principles to the care of patients with advanced HF, while after the session 86% indicated they were comfortable with this. An example of feedback included, “As a resident, this session helped build foundational knowledge in this field. I appreciate how the session was well designed for learners of different levels.”

Conclusions: The teaching session benefitted clinicians with an array of experiences and roles. Next steps include leading this session with interdisciplinary clinicians from the Division of Cardiology.

A136

A New Mentorship Model to Advance Gerontology through Exceptional Scholarship (AGES)

J. R. Bacsu,¹ D. Petrovsky,² J. S. Sefcik,³ Z. Rahemi,⁴ Z. G. Baker,⁵ K. Ma,⁶ M. L. Smith.⁷ *1. School of Nursing, Thompson Rivers University School of Nursing, Kamloops, BC, Canada; 2. School of Nursing, Rutgers The State University of New Jersey, New Brunswick, NJ; 3. Drexel University, Philadelphia, PA; 4. Clemson University, Clemson, SC; 5. Edson College of Nursing and Health Innovation, Arizona State University, Tempe, AZ; 6. University of Washington, Seattle, WA; 7. Texas A&M University, College Station, TX.*

Background

Mentorship is vital to advancing professional development and growth among new and early career faculty members. Collaborating with a national organization, we created the Advancing Gerontology through Exceptional Scholarship (AGES) Program as a mentorship model to promote peer support, team-based science, international collaboration, and productivity for early career faculty members. Building on our experience with the AGES Program, this presentation will identify key recommendations for other groups looking to develop high quality mentorship programs to support early career faculty members in gerontology.

Methods

Following a national recruitment webinar and competitive application process, 5 participants (new and early career faculty members) were selected into AGES Program. Monthly meetings were held to address productivity topics from November 2022 to June 2023. Each member led a journal article with collaboration and support from the team.

Results

Building on our experience with the AGES Program, we identified five recommendations that strengthened our program: 1) Collaborating with mentees to identify mentorship topics for monthly

meetings; 2) Providing inspirational speakers to motivate cohort; 3) Ensuring flexibility to address mentee needs; 4) Establishing regular check-ins and accountability to enhance productivity; and 5) Using a shared online folder (SharePoint), regular meetings, and emails to aid co-authorship during conceptualization, writing, and editing stages.

Conclusion

The AGES Program offers a useful model to foster mentorship, peer support, and co-authorship opportunities. Supportive programming and mentorship models are essential to helping early career faculty thrive in the field of gerontology.

A137

Understanding Perceptions of Geriatric Medical Educators Around Teaching Clinical Reasoning to Learners

J. THAI,¹ E. Bonifacino.² 1. MEDICINE, Stanford University School of Medicine, Stanford, CA; 2. MEDICINE, University of Pittsburgh, Pittsburgh, PA.

Background: Older patients are diagnostically challenging. Literature shows >10% of cases of COPD, heart failure, dementia, Parkinson's disease, CVA/TIA, and acute myocardial infarction were misdiagnosed (either over- or under-diagnosed) among patients 65 years and older. Challenges to achieving diagnostic excellence among older adults include communication barriers, medical complexities, differences of disease expression in older adults compared to younger adults, and aging biases among clinicians. It is not well known whether or how medical learners are taught clinical reasoning skills that may help them achieve diagnostic excellence with older adults.

Methods: A national cross-sectional survey study was conducted to better understand the perceptions of geriatric medical educators around teaching clinical reasoning skills. Approval was obtained from the Stanford University IRB. Geriatric medical educators in the U.S. who interacted with medical learners in any capacity were eligible. Participants were recruited from the geriatric medicine fellowship PD directory (via AMA FRIEDA database) [N=76] and AGS members discussion forum [N was unknown]. Recruitment emails were sent to PDs and information about the study was posted to the AGS members discussion forum. Both communications included a link to the survey, which was built in Qualtrics. A reminder email and post were sent and made, respectively, within 1 week of the initial ones.

Results: N=60. 65% agreed that explicit training in clinical reasoning skills can reduce medical errors and improve diagnostic excellence. 37% had received formal training on how to teach clinical reasoning skills but 41% did not know where to receive further training. Additionally, 78% wanted to receive further training on how to teach clinical reasoning. Lack of teaching time and personal lack of training in clinical reasoning concepts were identified as top barriers for teaching explicit clinical reasoning skills to learners.

Conclusions: Overall, respondents wanted further training on how to teach clinical reasoning skills, but did not know where to get it from. Top barriers to teaching clinical reasoning skills included lack of formal training. Proposed next steps include developing workshops and other educational modalities to provide formal training to geriatric medical educators on how to teach clinical reasoning skills to learners.

A138

Creating Leadership Curriculum for Junior QI Coaches

C. Kuwata, H. Fernandez. *Icahn School of Medicine at Mount Sinai, Rolling Hills, CA.*

Background:

There are not enough geriatricians to care for our aging population. To fill this critical workforce gap, geriatricians are recruited to leadership positions by health systems seeking to develop better care models for older adults. The ACGME Geriatrics milestones include key leadership skills such as expertise in quality improvement and team-based communication. In the geriatrics and integrated geriatrics/

palliative medicine fellowships at Mount Sinai, the quality improvement (QI) projects provide the context to practice these competencies. Second-year fellows become Junior Coaches of QI projects. For some fellows, this may be their first formal "leadership" position. The project goal was to create a leadership component to the QI projects to support the leadership development of these fellows.

Methods:

A needs assessment survey was developed by reviewing leadership curriculum. To evaluate for content and face validity, the survey questions were reviewed with experts in QI and education. Based on the needs assessment, a one year curriculum was designed with small group lectures on various leadership topics. The goal of these sessions was to discuss how these leadership topics are applicable to the real-life leadership scenarios that the fellows were encountering as coaches. An electronic survey was sent to all 2nd year fellows prior to the sessions to assess their perceived knowledge and comfort regarding various leadership topics.

Results:

The survey had an 85% response rate (6 of 7 fellows). The fellows felt most knowledgeable on leadership topics of creating/sharing a vision and working with different communication styles. They felt least knowledgeable on topics of managing conflict and eliciting/receiving feedback. They felt most comfortable using these leadership skills: creating a space for others to feel heard, working with different communication styles, and designating and defining roles. They felt least comfortable with receiving and giving feedback.

Discussion:

Graduates of geriatric fellowship training must be prepared to be leaders in healthcare. They must be given opportunities to learn and practice core leadership skills. This project identified the specific skill needs of the QI Junior Coaches and created an environment for them to synthesize the material through application as project leaders. After completion of the curriculum, a post-intervention assessment will be conducted to determine the efficacy and impact of this project.

A139

Frailty, Care Utilization, and Survival among Veterans with Myelodysplastic Syndromes undergoing Disease-Modifying Therapy

A. Hamparsumian,¹ J. La,^{2,3} M. Dharne,³ G. Abel,^{2,4} G. Gilbert,^{2,3} M. Brophy,^{3,5} N. Do,^{3,5} D. H. Kim,^{2,6} J. Driver,^{2,7} N. Fillmore,^{2,3} C. Dumontier.^{2,3} 1. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 2. Harvard Medical School, Boston, MA; 3. Veterans Affairs Boston Healthcare System, Boston, MA; 4. Dana-Farber Cancer Institute, Boston, MA; 5. Boston University Chobanian & Avedisian School of Medicine, Boston, MA; 6. Hinda and Arthur Marcus Institute for Aging Research, Boston, MA; 7. Brigham and Women's Hospital, Boston, MA.

The myelodysplastic syndromes (MDS) are a group of blood cancers that largely occur in older adults. They are characterized by bone marrow failure and can lead to acute leukemia. Many affected patients become transfusion-dependent, and some experience intense care utilization. We aimed to evaluate the association between frailty and transfusion incidence, hospitalizations, and mortality in Veterans with MDS requiring chemotherapy. We conducted a retrospective study of Veterans with MDS in the VA Cancer Registry from 7/2004-6/2023 initiated on hypomethylating agents (decitabine, azacitidine) and/or the BCL-2 inhibitor venetoclax. Frailty was assessed using the Veterans Affairs Frailty Index (VA-FI), a validated measure of 31 aging-related deficits derived from EHR and claims data. Poisson regression and Cox proportional hazard regression models were adjusted for age, sex, race/ethnicity, region, rurality, and baseline hemoglobin, platelet, and leukocyte counts. We identified 1297 Veterans (median age 72.9 years, 97.7% male, 78.0% non-Hispanic white, 11.3% African American) initiating disease-modifying therapy for MDS.

Single agent azacitidine (79.4%) and decitabine (14.8%) were the most common first-line treatments. Compared to the non-frail, moderate-severely frail Veterans had twice the incidence of transfusions, 1.5 times more unplanned hospitalizations, and a significantly higher hazard of death (Table). For Veterans with MDS advanced enough to require disease-modifying treatment, increased frailty is significantly associated with higher risk of transfusions, unplanned hospitalizations, and mortality. It is unclear if this risk is worsened by therapy or the underlying syndromes themselves; further research is needed to characterize how MDS-related contributors to frailty and non-oncologic aging-related factors mediate increased risk.

TABLE

Frailty Severity	N (%)	RBC Transfusion Incidence		Hospitalizations		Mortality	
		IRR	95% CI	IRR	95% CI	HR	95% CI
Non-frail (VA-FI < 0.2)	428 (32.9%)	ref	ref	ref	ref	ref	ref
Mild frailty (VA-FI 0.2-0.3)	393 (30.3%)	1.05	0.93-1.19	0.98	0.93-1.03	1.11	0.96-1.28
Moderate-Severe frailty (VA-FI ≥ 0.3)	476 (36.7%)	1.87	1.67-2.10	1.46	1.39-1.54	1.52	1.33-1.75

A140

Underrepresented Population Recruitment for an Emergency Department-based, Advance Care Planning Study: A Sub-analysis of a Randomized Controlled Trial

Y. Shiozawa,¹ S. Morton,¹ S. Malik,³ K. Ouchi.^{1,2} *1. Emergency Medicine, Brigham and Women's Hospital, Boston, MA; 2. Emergency Medicine, Harvard Medical School, Boston, MA; 3. The City College of New York CUNY School of Medicine, New York, NY.*

Background:

Underrepresented racial/ethnic patients in the US have significantly reduced rates of advance care planning (ACP) compared to non-Hispanic White patients, leading to disparities in end-of-life outcomes.¹ Emergency department (ED) visits often signal a rapid rate of functional decline and can be an opportunity for patients to engage in ACP.² However, underrepresented patients' motivations for ACP engagement in the ED remain unclear. This analysis assesses the association between race/ethnicity and recruitment rate in an ACP study.

Methods:

Clinically stable patients with serious, life-limiting illnesses were enrolled in the EDs of three academic medical centers in a randomized controlled trial (February 2022 to May 2023). Patients self-identified as American Indian or Alaska Native, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, White, Hispanic, Not Hispanic, and/or Other.

Results:

We recruited 682 patients (53% female, mean age 69 years, 63% with solid tumor cancer). Reasons for refusal included busy/overwhelmed (38%), not ready for ACP (11%), not interested in research (46%), or other (5%). There was no difference in the reasons for refusal between non-Hispanic White patients and the underrepresented population ($p > 0.05$).

Conclusions:

Disparities in ACP engagement may not primarily be due to time, readiness for ACP, or interest in research. This carries important implications for how EDs can better allocate resources to address end-of-life disparities in patients with serious illnesses in underrepresented populations.

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Recruitment Rate Among Racial/Ethnic Groups

Characteristics	Non-Hispanic White Patients	Underrepresented Patient Groups	Total	p-values
Eligible patients, n (%)	551 (81)	131 (19)	682	--
Enrolled, n (%)	100 (18)	21 (16)	121 (18)	0.59
Refused, n (%)	426 (77)	102 (78)	528 (77)	0.80
Other (e.g., lost contact), n (%)	25 (5)	8 (6)	33 (5)	0.65

A141

Outcomes in Geriatric Trauma Patients Admitted to Intensive Care Unit

M. Singh,¹ L. Donatelli-Seyler,² A. Sarode,² A. Loudon,² N. McQuay,² M. Moorman,² G. Tinkoff,² D. Younan.³ *1. Medicine, Brown University, Providence, RI; 2. Surgery, University Hospitals, Cleveland, OH; 3. Surgery, Staten Island University Hospital, Staten Island, NY.*

Background: Trauma in the elderly is associated with adverse outcomes. This study evaluates the effect of age and factors predictive of mortality in trauma patients admitted to the intensive care unit (ICU).

Methods: Level 1 trauma center registry data from 2016 to 2018 included demographics, admission vital signs, mechanism of injury, injury severity score (ISS) and outcome data on discharge disposition and in-hospital mortality. Propensity score matching was performed to match GT and non-geriatric trauma patients (NGT). Baseline characteristic comparison was done using t-test or Wilcoxon Mann Whitney test. Multiple logistic regression was performed to assess association between predictor variables and outcomes. Stratification of GT group by age was done to describe differences in chosen outcomes.

Results: 387 GT patients were matched. GT and NGT patients were male (63.6% & 61.5%; $p=0.6$) and white (74.2% & 72.3%, $p=0.6$), respectively. Mean (SD) ISS was lower in GT compared to NGT [13.5(7.2) vs 14.7(8.5), $p=0.04$]. Mean (SD) Emergency Department Systolic Blood Pressure (ED SBP) was higher (140 (29) mmHg vs 130 (27) mmHg; $p < 0.001$) and mean (SD) Heart Rate was lower (85 (20) vs 91 (21); $p=0.007$) in GT as compared to NGT group. After adjusting for ISS, race, sex, and injury mechanism, mortality in GT group was higher, OR 3.17 95% CI (1.78,5.63). The GT group had a higher proportion of discharges to institutional post-acute care as compared to NGT (69.2% vs 40.6%; $p < 0.001$). Multivariable regression analysis showed lactic acid at admission; OR 1.27 95% CI (1.00-1.61) be predictive of increased odds of death in GT group. After stratifying GT group by age, ED SBP was higher ($p=0.005$) and institutional post-acute care discharge ($p=0.04$) was higher in age categories (75-84 & 85 and older) as compared to the reference group (65-74), but mortality was not different.

Conclusion: Older trauma patients in ICUs have higher mortality compared to non-geriatric patients. Admission lactic acid levels may help triage and inform care for these vulnerable older adults. Mortality rates did not but disposition differed significantly when GT group was stratified by age. This is counterintuitive and may indicate the effect of unmeasured confounders. Further studies are needed to confirm these results.

A142 Encore Presentation

Examining burden and associated factors in caregivers of older adults with cancer

L. Rhodes,¹ K. Swartz,² A. Chapman,¹ C. Zuber,³ C. Glavin,¹ K. Wen.¹ *1. Medical Oncology, Sidney Kimmel Cancer Center, Philadelphia, PA; 2. Family and Community Medicine Division Geriatrics and Palliative Care, Thomas Jefferson University, Philadelphia, PA; 3. Sidney Kimmel Medical College at Jefferson, Philadelphia, PA.*

Older adults with cancer, while a heterogeneous group, have unique needs compared to their younger counterparts. Their caregivers, often older themselves with their own health problems, also face unique challenges. While comprehensive geriatric assessment (CGA)

is recommended for older patients with cancer, there are currently no recommendations regarding screening for burden among their caregivers. This study was designed to identify factors associated with burden in caregivers of older adults with cancer to better understand the needs of this vulnerable yet often overlooked population.

The Zarit Caregiver Burden Interview (ZBI-12) and caregiver distress screening (utilizing the NCCN Distress Thermometer) were included in the comprehensive geriatric assessments (CGA) performed in the Senior Adult Oncology Center of the Sidney Kimmel Cancer Center at Thomas Jefferson University Hospital. Data was collected on 50 patient-caregiver dyads. Caregiver burden and caregiver distress were compared with patient assessments utilized in the CGA.

For data analysis, caregivers were divided into two groups, no-mild burden (ZBI < 10) and moderate-high burden (ZBI ≥ 10). Patient-caregiver dyads in the higher caregiver burden group had significantly higher CARG (Cancer Aging Research Group chemotherapy toxicity risk) scores (p=.002), higher caregiver distress scores (p=.001), and older patient age (p=.004). There was no significant correlation between caregiver burden and patient distress, ECOG scores or Geriatric Depression Screen scores. Caregiver reported distress was significantly higher on average than patient reported distress.

Burden among cancer caregivers impacts both caregiver and patient health and quality of life. As our population ages, the burden on family caregivers will also increase. While preliminary, our results illustrate that current measures of patient distress and functioning are likely not representative of caregiver distress and functioning in an older adult cancer population. As we continue to work to better understand the needs of older adults, it is critical that we also work to develop tools to assess and assist their caregivers.

A143
Disease Activity is Associated with Pre-Frail and Frailty in Rheumatoid Arthritis

R. Bass,¹ H. Brubeck,¹ C. Loecker,² E. Wahl,¹ M. Gadzhiev,¹ D. Shoback,³ J. M. Garcia,¹ A. R. Orkaby,⁴ J. F. Baker,⁵ P. P. Katz,⁶ K. Wysham.¹ 1. VA Puget Sound Health Care System Seattle Division, Seattle, WA; 2. University of Nebraska Medical Center, Omaha, NE; 3. San Francisco VA Health Care System, San Francisco, CA; 4. Veterans Affairs Boston Healthcare System, Boston, MA; 5. University of Pennsylvania, Philadelphia, PA; 6. University of California San Francisco, San Francisco, CA.

Background: Frailty occurs earlier in people with rheumatoid arthritis (RA) vs the general population. RA disease activity is associated with inflammation, pain and disability and likely impacts frailty measurement¹. We investigated the relationship between disease activity, including its subcomponents, and frailty in Veterans with RA.

Methods: Data were from the Veterans Affairs Rheumatoid Arthritis Frailty and Osteoporosis cohort. RA disease activity was measured by the disease activity score of 28 joints with c-reactive protein (DAS28CRP) which is comprised of subcomponents: tender joint count (TJC), swollen joint count (SJC), patient global assessment of disease activity (PGA) and CRP. Frailty was measured according to the Fried Phenotype. Veterans were categorized as either: 1) Robust or 2) Prefrail/Frail. We evaluated DAS28CRP's association with prefrailty/frailty after controlling for age and sex in a multivariable logistic regression. We repeated the analysis substituting DAS28CRP for its subcomponents.

Results: We evaluated 85 Veterans with RA (72% male, 74% White, mean age 64.2±11.2 years) with an average disease duration was 14.5±14 years. 72% of the cohort was prefrail/frail. Robust participants had lower DAS28CRP (3.3 vs. 4.1) and had a lower CRP (3.6 vs 8.1mg/L). After controlling for age and sex, each unit increase of the DAS28CRP carried 1.93 times the odds of being prefrail/frail (95% CI 1.20-3.10). Subcomponents of the DAS28CRP were not significantly associated with prefrail/frail status.

Conclusions: Disease activity is associated with pre-frail and frail status in a cohort of Veterans with RA. This suggests that disease activity may impact frailty measurement in RA. Longitudinal studies are needed to determine if controlling RA disease activity improves frailty status.

1) Kojima M, et al. Mod Rheumatol 2021

A144
Human-centered design to incorporate clinical team and leader perspectives to refine a photo-based patient-clinician communication intervention for older adults in primary care

T. Chinn, I. Hoang, H. Pan, E. Chu, J. Jih. University of California San Francisco, San Francisco, CA.

Background: Human-centered design (HCD) is a process in which user insights, preferences and needs are central to intervention design. Photo+Care (P+C) is a patient-clinician photo-based communication intervention for older adults with multiple chronic conditions to take and share photos of chronic disease important factors (medication use, food experience, fall risk) with their clinician in a visit to enhance communication and patient-centered care plans. We used HCD sessions to incorporate clinic team members/leaders perspectives to refine P+C for primary care.

Methods: As part of a broader approach to P+C design including other stakeholders, we conducted participatory design sessions with clinic team members/leaders including nurses, medical assistants, practice coordinators/managers, and nurse managers from 3 primary care clinics caring for older adults. In each session, we presented scenarios and cases to learn users' needs, anticipate barriers, and hone in on parameters for successful design, implementation, and integration. Two trained researchers facilitated recorded sessions. Session transcripts were analyzed using thematic analysis within 1 week of the session. We synthesized and incorporated identified themes and feedback into subsequent sessions to further refine P+C components and implementation strategy.

Results: We have completed 3 design sessions with clinic team members (n=2 sessions) and leaders (n=1 session) (total 8 participants). 38% of participants were nurses. All participants thought P+C would be impactful in geriatric primary care despite potential impacts to their roles and workflow. Identified areas for refinement (Table 1) included standardized workflow training, optimizing impacts to clinic team member roles, and offering patient tech training (e.g., photo-taking & uploading of photos to the electronic health record patient portal) to mitigate potential impacts on clinic team member roles and responsibilities.

Conclusion: Involving multidisciplinary viewpoints in the design and implementation of a photo-based communication tool is a necessary step for uptake and adoption of an intervention aimed at enhancing geriatric primary care.

Representative Quotes from Design Sessions

Perspectives on Photo+Care Intervention	"I was just thinking this might be good for annual Medicare wellness visits...because the visits address things like falls. The same with like the food ones, I think that could be helpful for a nurse visit if they if they
Areas for Refinement - Clinic team member training	"I think everyone should get the same training regardless of their credentials...Because, besides the first group to review patient messages (that may include photos) are MAs and LVNs right? If, we all get the same training, at least we will know what how to handle from the beginning." - Medical assistant
Areas for Refinement - Impact on clinic team member roles	"I think a barrier I can see is who is going to be responsible for uploading [patient photos shared during a visit into the electronic health record] if the patient does not know how to upload photos into MyChart. If it
Areas for Refinement - Patient training	"It would be best for all patients [involved in Photo+Care] receive training on how to upload photos into the MyChart patient portal. If patients would like further help during the visit, having a point person [in the clinic] would be good, but I was thinking it should be admin staff just because the flow managers [MAs and LVNs] have so many things to do, for the visit like procedures and things like that. Like take it away from flow managers, have a point person for admin do it, but that we train patients [beforehand], but then also have like a backup admin person be available." - Practice manager

A145

Prophylactic Cranial Irradiation and Dementia: A Contemporary Review of Neurocognitive and Brain imaging Assessments

M. Sadri,² M. A. Pernia Marin,¹ V. Spektor,¹ B. Collins,³ M. Salvatore.¹ 1. *Radiology, Columbia University Irving Medical Center, New York, NY*; 2. *School of Medicine, Tehran University of Medical Sciences, Tehran, Iran (the Islamic Republic of)*; 3. *Tampa General Hospital - Department of Radiation Medicine, University of South Florida, Tampa, FL*.

Background: Small-cell lung cancer (SCLC) mainly affects older adults with a long-standing smoking history. The brain is a common target for metastasizing SCLC, and the standard chest chemoradiation is insufficient for brain protection. Prophylactic cranial irradiation (PCI) is an established technique that was introduced to improve overall survival in select cases of SCLC. Clinicians have always questioned the appropriateness of PCI administration due to concerns of possible neurocognitive adverse effects.

Methods: This review article gathers the most recent recommendations regarding PCI in SCLC patients and enumerates the most common cognition assessment tools used before and after the treatment. It also describes the clinical and neuroradiological characteristics associated with the most frequent dementia types and their parallels with the cognitive impairment identified in some patients after PCI.

Results: Neuropsychological assessments of SCLC patients who have undergone PCI have shown the presence of cognitive impairment in different domains. Findings from brain magnetic resonance imaging (MRI) studies are consistent with pathological changes in brain structures, including those involved in cognitive functions. In these patients, the affected brain structures are similar to those observed in other types of dementia, such as Alzheimer's disease, frontotemporal dementia, dementia with Lewy bodies, and vascular dementia. Various strategies have been considered to decrease the risk of post-PCI cognitive impairment, including hippocampus avoidance PCI (HA-PCI) and the co-administration of medications like memantine or donepezil. Brain MRI surveillance has been proposed for patients in which the benefits of PCI does not seem to outweigh the risks of cognitive and functional impairment.

Conclusion: Comprehensive assessments of function and cognition by a multidisciplinary team as well as neuroradiological evaluations of SCLC patients seem to be the key for appropriate selection of PCI candidates, particularly among older adults.

A146

Impact of In-House Podiatry in a Value Based Care System

D. Walton,² T. Mack,¹ A. H. Chou.³ 1. *Podiatry, Oak Street Health LLC, Chicago, IL*; 2. *Data Science, Oak Street Health LLC, Chicago, IL*; 3. *Internal Medicine, Oak Street Health LLC, Chicago, IL*.

Background: Foot care via a skilled podiatrist has been linked to improved outcomes in conditions that are highly prevalent amongst older adults and communities of lower socioeconomic status (e.g. diabetes, peripheral vascular disease, and decreased mobility). Unfortunately, barriers to adequate foot care including difficulty with transportation, copayment, and health literacy are also more prevalent amongst older adults of lower socioeconomic status - thus creating a vicious cycle whereby patients who need foot care the most may have the greatest barriers to accessing the care they need.

For these reasons, Oak Street Health, a national network of value-based primary care clinics serving primarily older adults in vulnerable communities decided to in-source podiatric care for its patients in 2015. Oak Street Health currently employs 8 podiatrists to help care for ~12,000 patients across Illinois, Indiana and Ohio. Oak Street podiatrists provide consults for all diseases of the foot and ankle and offer routine nail care to older adults.

Methods: We prepared a retrospective study using two methods (inverse propensity score weighting and matching) to balance

covariates between patients treated by an in-clinic podiatrist (n=2000) and patients that received a traditional podiatry outpatient referral. Forty-two percent (42%) of patients in our study identified as Black, 17% White, 0.3% Asian, and 40% unknown. 16% of the patient group reported a preferred language of Spanish.

Results: Both analysis methods suggested lower patient turnover (84.5% vs 80.5%, p<0.05), third-party costs (~\$150 PMPM less), and hospital admission rate (90 point reduction, p<0.05) in the treated group compared to the control.

Conclusions: These results suggest that an in-house podiatry program may help circumvent barriers to effective nail care in vulnerable older adults. There were positive clinical and business-critical outcomes incurred from building a podiatry program within a value-based primary care network. Next steps include validation of results via a prospective randomized control trial as well as discussion of expansion of the in-house podiatry program.

A147

A Cross-Specialty Innovation to Provide Age-friendly Care to Homeless and Formerly Homeless Adults in Community Settings

K. Breder,^{1,2} V. Yu.^{3,2} 1. *Nursing, New York University Rory Meyers College of Nursing, New York, NY*; 2. *Center for Urban Community Services, New York, NY*; 3. *New York University Grossman School of Medicine, New York, NY*.

Background: Today's homeless population is aging, yet community practitioners are not well-equipped to meet the needs of older adults with lived experiences with homelessness. The purpose of this paper is to present and assess an innovation in which community-based practitioners were asked to conduct geriatric assessments with homeless or formerly homeless patients in New York City for the purpose of initiating age-friendly care in community settings.

Methods: Between May 2022 and August 2023, 62 community-based psychiatric and primary practitioners employed by an on-site social services agency were asked to screen patients aged 65 and older at routine medial visits using assessments that measure mobility, pain, activities of daily living, and cognition. Assessment data was recorded in an electronic health record. All assessments were conducted in the patient's on-site residence in one of the following settings: state-subsidized supportive housing sites, transitional supportive housing sites, or on urban streets.

Results: 30 out of 62 (48%) providers conducted geriatric functional assessments during the first 15 months of the intervention.

Conclusion: Our findings indicate that fewer than half community-based psychiatric and primary care practitioners were willing to assess geriatric functioning in community-dwelling homeless and formerly homeless older adults. Community-based practitioners must adopt a versatile, cross-specialty skillset to ensure that aging patients with lived experiences of homeless receive age-friendly care. We discuss reasons why some practitioners did not conduct geriatric assessments and outline strategies for supporting these practitioners in adopting age-friendly practices in community settings.

A148

Beyond Frailty Phenotype, the role of Preoperative E-Frailty Assessment in Gastrointestinal Cancer

G. Henriquez-Santos,¹ M. Al-Jumayli.² 1. *Geriatrics, Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, Ciudad de Mexico, Mexico*; 2. *Geriatric Oncology, Moffitt Cancer Center, Tampa, FL*.

Background: Assessing frailty enhances preoperative risk evaluations. This systematic review examines the role of electronic frailty assessment in predicting postoperative outcomes(POCs) in older adults with gastrointestinal cancer.

Methods: A comprehensive search was conducted to identify studies reporting the use of e-frailty screening tools in this population.

Studies were assessed for quality and findings were synthesized to determine the prevalence of frailty, POCs (e.g. LOS, 30-day mortality) and feasibility in this setting.

Results: A total of 31 studies were included. We found that e-frailty assessments performed provided prognostic value for POCs. The most commonly used instruments were the Clinical Frailty Scale, followed by the 11 item-modified frailty index(mFI-11) and the mFI-5. Frailty rates ranged widely (2.63% to 61.28%). Feasibility was assessed in all studies, with implementation being the most frequently reported measure. However, only 4 out of 31 data points were based on objective data, and information about other feasibility aspects, such as time needed for completion/speed and practicality, was hardly reported.

Conclusions: Frailty assessment in older adults undergoing GI cancer surgery using electronic assessment tools has an essential role in predicting postoperative outcomes.

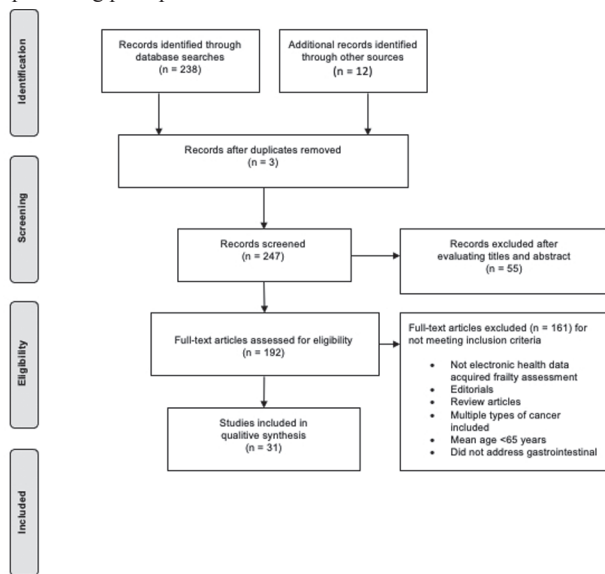


Figure 1. Prisma Flow diagram

A149
Unmet needs and social determinants of health in older cancer survivors

J. Negrete-Najar,¹ J. Gómez-Camacho,² A. Navarrete-Reyes,² J. Ríos-Nava,² R. Rangel-Tapia,² A. Salinas-Rodríguez,³ J. Ávila-Funes.² 1. Geriatrics, Instituto Mexicano del Seguro Social, Ciudad de Mexico, Mexico; 2. Geriatrics, Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, Ciudad de Mexico, Mexico; 3. Instituto Nacional de Salud Publica, Cuernavaca, Mexico.

In older cancer survivors physical, emotional, psychological, spiritual, social, and information unmet needs are common. Unmet needs have been linked to older age, ethnicity, intense treatment, type of cancer, low income, access to health services, and depression. This study aimed to identify unmet needs of older cancer survivors. Cross-cultural validation of SF-SUNS and NCCN-Survivorship questionnaires was done. Then applied to survivors >65 years, with history of cancer (prostate, breast, and colon) and non-Hodgkin's lymphoma. Associations were sought between unmet needs and clinical and geriatric variables, and social determinants of health. A description of frequencies of unmet needs and most common symptoms was made. 106 participants, median age 74 years, 73.6% women; 10.4% prostate cancer, 49.1% breast cancer, 34.9% colon cancer, and 5.7% large B cell non-Hodgkin lymphoma. Significant relationships were found between higher SF-SUNS scores and being a woman, survival>5 years, not having a caregiver, low monthly income, greater presence of symptoms, immobility, frailty, spirituality, lack of transportation and lower

self-perception of health. Multivariate regression found that survival <5 years and having a caregiver decreased unmet needs, while low income and spirituality increased them. The most frequently reported symptoms were memory problems, snoring and insomnia and difficulty concentrating. Multivariate linear regression found that finding meaning in life and having a spiritual link with a higher being decreased the presence of symptoms, while frailty significantly increased them. The presence of disability for AIDL, immobility and frailty were found in more than half of the sample. Survivorship should include cognitive assessment, sleep disorder screening, functional assessment, and social and spiritual support to provide adequate care.

A150
Biliodigestive bypass in older adults: geriatric assessment and post-operative outcomes

C. Ortega-Ortiz,¹ J. Negrete-Najar,¹ A. Arreola-Rodríguez,² A. Navarrete-Reyes.² 1. Geriatrics, Instituto Mexicano del Seguro Social, Ciudad de Mexico, Mexico; 2. Geriatrics, Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, Ciudad de Mexico, Mexico.

Recently there has been an increase in the number of biliary laparoscopic surgical procedures carried out in older adults(OA). Thus, the rate of benign bile duct lesions and the requirement for biliodigestive bypass(BDB) increased. Since BDB is a surgical procedure with high risk of postoperative complications(PO) risk stratification is essential. Few studies describe the PO complications of OA undergoing BDB and the role of geriatric assessment (GA) to predict them. Our aim was to describe the domains of GA associated with major PO of BDB in patients >70 years in a tertiary center in Mexico. This was a retrospective cohort study. Complications were measured with Clavien-Dindo classification. 45 participants were included, 19 had preoperative GA. Mean age 77.79, 47.4% women. Median age-adjusted Charlson index was 5, 44.4% had ASA ≥3. Median Katz score was 6, mean Lawton score was 5.21; 22.2% had fallen the previous year and the median number of drugs used was 4. The mean MNA was 21.5 and MMSE of 26.06. 7 patients (36.8%) developed serious PO complications. PO complications were post-surgical infection (42.1%), delirium (26.3%) and ICU admission (21.1%). Two patients died (one-month mortality 10.5%). Bivariate analysis did not identify differences in GA domains in patients with and without major PO complicationsProspective studies are needed to know the value of GA in older adults who are candidates for DBD.

A151
Prevalence of Chronic Kidney Disease and Impact on Frailty in Older Adults with Atrial Fibrillation

H. O. Abu,³ F. Fernandez del Castillo,¹ W. Wang,⁴ E. Zimmons,³ T. Paul,⁴ J. Mehawej,⁴ M. Tisminetzky,⁵ R. Goldberg,⁵ C. Kiefe,⁵ J. Saczynski,² J. Gurwitz,³ D. McManus.⁴ 1. Division of Nephrology, Reliant Medical Group Inc, Worcester, MA; 2. Northeastern University, Boston, MA; 3. Geriatric Medicine Division, UMass Chan Medical School, Worcester, MA; 4. Internal Medicine, UMass Chan Medical School, Worcester, MA; 5. UMass Chan Medical School, Worcester, MA.

Background: Among older adults with atrial fibrillation (AF), comorbid chronic kidney disease (CKD) may impact their overall well-being. We examined the burden of CKD in older adults with AF and its impact on frailty.

Methods: Between 2016-2018, patients aged ≥65 years with AF were recruited from clinics in Massachusetts and Georgia to a cohort study. Participant renal function was assessed with GFR values obtained at enrolment: G1: ≥90 (normal), G2: 60-89 (mild CKD), G3a/3b: 30-59 (moderate CKD), and G4/G5: ≤ 29 (severe CKD to end-stage renal disease(ESRD)). The Cardiovascular Health Study frailty scale evaluated five components: unintentional weight loss,

exhaustion, low physical activity, weak grip strength, and slow gait speed. Participants with ≥ 3 components were classified as frail. The association between CKD and frailty was examined using logistic regression with stepwise adjustment of sociodemographic (age, gender, race, marital and educational status); clinical (AF type, prior ablation, heart failure, diabetes, dyslipidemia, cancer, anemia, polypharmacy, cognitive and visual impairment); and psychosocial (depression and alcohol use) variables.

Results: Participants (n=1,244) mean age was 75 years, 48% were women, and 86% were White. Overall, 25% had normal GFR, 44% - mild CKD, 28% - moderate CKD, and 3% - severe CKD to ESRD. Approximately 14% (n=172) were frail. Participants with moderate CKD (OR: 1.62; 95% CI: 1.06-2.48) and severe CKD to ESRD (OR: 3.51; 95% CI: 1.57-7.82) were more likely frail than those with normal GFR. This association persisted after adjustment for sociodemographic variables; moderate CKD (aOR: 1.57; 95% CI: 1.01-2.46) and severe CKD to ESRD (aOR: 2.81; 95% CI: 1.15-6.84). After adjustment for clinical and psychosocial variables, there was no significant association between CKD and frailty.

Conclusions: These findings provide more insight into the impact of CKD on frailty in patients with AF and emphasize the need for increasing holistic and multidisciplinary approach in caring for older adults with comorbid cardiovascular and renal diseases.

A152

Left Atrial Myopathy As Assessed On Echocardiography Is Predictive Of Atrial Fibrillation Recurrence After Coronary Artery Bypass Surgery

A. Oredegbe, *Medicine, Albany Medical Center, Albany, NY.*

Background: Atrial fibrillation (AF) and atrial flutter (AFL) are common after coronary artery bypass (CABG) surgery and are associated with significant morbidity. Assessed with echocardiogram left atrial function has been shown in various studies to be a marker of cardiovascular risk. Effects of left atrial size and function on post-CABG acute and recurrent atrial fibrillation were not well investigated.

Methods: This was a retrospective study involving 398 consecutive patients without prior AF/AFL and CHA2DS2VASc score > 1 for men or > 2 for women who underwent CABG without valvular surgery at a single tertiary academic center between 2020 and 2021. Pre-operative demographic, laboratory, and echocardiographic data and post-CABG outcomes were analyzed. Left atrial volumes including maximum left atrial volume as well as left atrial conduit, booster, and strain were obtained.

Results: Study cohort included 79 (19.8%) females, 64.9 \pm 9.2 years old, predominantly white (350, 87.9%), with DM in 210 (52.8%), lung disease in 62 (15.6%), and chronic kidney disease in 54 (13.6%). Post-CABG AF/AFL was noted in 36.2% (144/398), and recurrent AF/AFL after a first episode was noted in 49.3% (71/144). Hospital stay was longer in patients with post-CABG AF/AFL (13.9 \pm 7.2 vs 11.1 \pm 6.3 days, p < 0.001), and recurrent AF/AFL was associated with even longer hospital stay (14.6 \pm 8 vs 11.6 \pm 6.4 days, p < 0.007). Patients with recurrent AF/AFL had significantly larger maximal left atrial volumes (61.8 \pm 17.57 vs. 51.8 \pm 24.91, p=0.009). Left atrial conduit (36.6 \pm 18.0 vs 35.1 \pm 22.7%, p=0.702), booster (27.7 \pm 14.8 vs. 28.7 \pm 17.1%, p=0.73) and strain (34.6 \pm 18.0 vs. 35.8 \pm 23.9%, p=0.702) were similar in patients with and without AF/AFL recurrence. On multivariate analysis, increased left atrial volume (HR 1.024 per 1 ml, 95%CI 1.007-1.040, p<0.005) was significantly associated with post-CABG AF/AFL.

Conclusion: Post-CABG AF/AFL is common and leads to longer hospital stay after surgery. Maximum pre-CABG left atrial volume was associated with recurrence of atrial fibrillation and atrial flutter post-CABG.

A153

The impact of cancer on one year mortality in multimorbid geriatric patients with palliative consultation

E. Soheili, H. Dalal, n. hussain, M. Mader, H. Trinh, A. Hussain, S. Sanchez-Reilly, M. Restrepo. *Geriatrics, The University of Texas Health Science Center at San Antonio, San Antonio, TX.*

Background

In older adults, malignancy and other comorbidities can pose substantial challenges to treatment and complicate clinical outcomes. Palliative care is one solution to address the challenges of treating multimorbid older adults. Currently, there are limited studies comparing mortality rates among multimorbid patients receiving palliative care that focus on the independent impact of malignancy on mortality. We aimed to assess the effect of cancer on one-year mortality among multimorbid older adults.

Methodology

We conducted a cohort study with outpatient older adult veterans at the South Texas Veterans Health System. The inclusion criteria encompassed older adults ≥ 65 with complex medical comorbidities (Charlson comorbidity index (CCI) ≥ 1) irrespective of cancer for a period of 5 years prior to the initial palliative consultation. The primary objective as to compare the one-year mortality among the two groups. We adjusted for comorbidities including congestive heart failure, chronic obstructive pulmonary disease, diabetes mellitus, dementia, renal and hepatic diseases.

Results

We selected 1,449 outpatient older adult veterans with comorbidities. Among these, 425 patients (29.3%) had concurrent cancer and complex medical conditions (CCI ≥ 1) while 1,024 patients (70.7%) had only complex medical conditions. The median CCI among the patients with comorbidities and cancer was 6 as compare to CCI of 3 among patients without cancer. Patients with cancer had a higher 1-year mortality 55.3% (n=235) as compared to 44% (n=450) patients without cancer (aOR 1.97, 95% CI).

Conclusion

Our analysis showed that cancer, combined with high comorbidity, led to a higher one-year mortality rate in older adults receiving palliative care, while those receiving palliative care with high comorbidity alone had a lower one-year mortality rate. After adjusting for comorbidities, cancer independently doubled the odds ratio of 1 year mortality, emphasizing the need for earlier interventions and palliative care in this population.

A154

Bringing Age-Friendly Care to a Spinal Cord injury Center

I. Huayanay Espinoza,¹ D. Ota,^{3,2} L. M. Haddock,¹ J. Kiratli.³
1. *Geriatric medicine, Stanford University, Stanford, CA;* 2. *Spinal Cord Injury Medicine, Stanford University, Palo Alto, CA;* 3. *Spinal Cord Injury & Disorders Center, VA Palo Alto Health Care System, Palo Alto, CA.*

Background: The population of older adults living with spinal cord injury (SCI) is increasing, and these patients would benefit from age-friendly care given the complexity and multimorbidity that they face. Older adults with SCI represent a population with complex health problems and co-morbidities that is commonly cared for by multidisciplinary teams with expertise in SCI, but it is unknown how much principles of age-friendly care are implemented in this population. The aim of this project is to determine the current state of an Age-friendly health system at a Veterans Affairs (VA) Spinal Cord Injuries and Disorders (SCI/D) Center.

Methods: We reviewed records of older adults with SCI who visited one VA SCI/D Center over a period of 9 months for an annual SCI/D Comprehensive Preventative Health Evaluation in 2023. We collected demographic information and assessment of the 4M's: mentation, medications, mobility, and matters most. Mentation was

assessed using validated scales, medications were reviewed to assess polypharmacy and medication category. Mobility evaluated falls, transfers, and fracture risk. Matters most evaluated discussion of advance care planning documents.

Results: Of 33 records reviewed, most patients were males (31, 93.9%). White (18, 54.5 %) and African American (9, 27.3 %) were most representative population followed by native Hawaiian (2, 6.1 %). For 4M assessment, cognition was assessed in 18 charts (54.5%), and mobility in 29 (87.9%). Almost all patients (32, 97 %) had polypharmacy. Many (27, 81.8%) patients had advance care planning documents reviewed by social workers but there was no discussion about it by other health care providers during the annual evaluation.

Conclusions: Chart review revealed that mobility is assessed most often, while other aspects of age-friendly care were addressed infrequently. Next steps include stakeholder interviews to understand facilitators and barriers to implement an Age-friendly health system. Furthermore, it may be warranted to provide focused education in age-friendly care to support wellbeing and enhance the model of comprehensive care.

A155

Experiences of Emergency Care among Caregivers of Persons Living with Dementia during Emergency Department Crowding: A Qualitative Study

M. Suh,¹ A. Bhananker,⁶ N. Hernandez,⁵ A. Rivera,⁵ A. Naik,² S. Liu,³ M. Kennedy,³ A. Chary.⁴ 1. *University of Chicago Department of Medicine, Chicago, IL*; 2. *Institute on Aging, University of Texas Health Science Center, Houston, TX*; 3. *Massachusetts General Hospital Department of Emergency Medicine, Boston, MA*; 4. *Baylor College of Medicine Margaret M and Albert B Alkek Department of Medicine, Houston, TX*; 5. *Baylor College of Medicine School of Medicine, Houston, TX*; 6. *VA Center for Innovations in Quality Effectiveness and Safety, Houston, TX*.

Background: Since the COVID-19 pandemic, emergency department (ED) crowding and boarding have increased significantly. Adverse impacts of ED crowding on older adults include delirium and delays in pain treatment. Little is known about how ED crowding impacts persons living with dementia (PLWD) and caregivers. This study sought to explore the experiences of caregivers of PLWD seeking emergency care during a period of ED crowding.

Methods: We performed semi-structured interviews with caregivers of PLWD with an ED visit (March 2021 to January 2023). Study sites were two public hospitals experiencing a three-fold increase in boarding hours compared to pre-pandemic levels. Participants were recruited via chart review. Interviews were conducted in English and Spanish. We coded data using an inductive approach.

Results: Twenty-nine caregivers were interviewed about their experiences in the ED. 55% of caregivers belonged to minoritized racial groups (Black, Vietnamese, Chinese, Middle Eastern) and 31% identified as Hispanic. Three themes emerged: (1) difficulty obtaining assistance, (2) patient harms, and (3) concerns about triage and rooming processes. First, caregivers described having to be proactive to obtain symptom control and assistance with mobilizing PLWD. Second, noise and stimulation provoked agitation in PLWD. Third, caregivers found prolonged waiting room and hallway care undesirable and wanted PLWD to receive preferential considerations for rooming and rapid assessment.

Conclusions: Caregivers connected ED crowding with difficulty obtaining assistance, patient harms, and triage concerns. ED accommodations for PLWD during times of crowding should focus on triage, rapidity of formal evaluation, and delirium interventions.

A156

Wake-up Call – High Delirium Prevalence in Older Adults Boarded in Emergency Department

J. Niu, C. Ganta, M. Alhashmi, R. Factora, L. Kim, A. Hashmi, S. Saxena. *Center for Geriatric Medicine, Cleveland Clinic, Cleveland, OH*.

Background: Studies have shown that long emergency department (ED) length of stay is associated with delirium development in older adults [1]. Patients who are slated for admission but yet to have assigned beds on the medical/surgical floor often wait for a long time in the ED [2]. These patients are often referred to as boarders. The prevalence of delirium in boarded patients is not well-known as delirium is usually not assessed until they arrive the floor, potentially delaying appropriate delirium care. The utility of routine delirium screening for older adults while boarding in the ED also remains unclear.

Methods: Patients ≥ 65 years of age were randomly selected to undergo delirium screening while boarding in different parts of the ED at an urban academic medical center from 10/10/2023 to 11/15/2023. Delirium incidence was calculated using the results of 4AT screening (score ≥ 4 considered positive). Delirium assessment time (defined as the time between admission decision and delirium assessment) and ED boarding time (defined as the time between admission decision and patient departure from ED to the floor) are reported.

Results: 23 patients were assessed for delirium so far. 17 (74%) were female. The average age is 77 (69-91) years. 4 (17.4%) patients were found to be delirious based on 4AT results. The median delirium assessment time was 15.3 (0.83 - 21.7) hours, and the median ED boarding time was 20.4 (8.75 - 24) hours.

Conclusions: The results of this ongoing study demonstrate a high prevalence of delirium among older adults boarding in ED. Implementing routine delirium screening during boarding for timely diagnosis and earlier delirium interventions could improve the care of such patients.

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A157

The Influence of COVID-19 Pandemic on Trends and Outcomes in Elective Surgeries

J. Abi Chebl,¹ Z. Buchalski,² T. A. Bayer,^{3,2} V. Sarpal,³ P. Ghai,³ M. Quarella,³ M. Gold,³ R. Kaler,¹ Y. Abul,^{3,2} L. Vognar,^{1,3} S. Gravenstein,^{3,2} M. Singh,^{3,2} A. Rajan.^{3,2} 1. *Geriatrics, Roger Williams Medical Center, Providence, RI*; 2. *Providence VA Medical Center, Providence, RI*; 3. *Brown University, Providence, RI*.

Background: CoVID-19 has greatly impacted healthcare resources, posing challenges especially to elective surgical procedures and hospital length of stay. We hypothesized that the pre pandemic period was associated with a higher number of procedures and a longer stay among new Community Living Centers (CLC) Veteran Affairs (VA) residents compared to after CoVID vaccines became available.

Methods: This descriptive study evaluated the number of Veterans admitted to VA CLCs post elective surgeries in the pre-pandemic (pre-CoVID) year (December 2018 - 2019) and post-pandemic (post-CoVID) year (December 2020 - 2021) after vaccines became available. We compared the frequency of elective surgeries by procedure codes performed during the two time periods as well as CLC long stay (LS). Residence for longer than 40 days was used as the cutoff to define a LS. We included residents newly admitted to the

CLC aged ≥ 65 undergoing elective surgery. We excluded those undergoing urgent/emergent surgeries. We estimated the risk of LS in the post-CoVID period compared with the pre-CoVID period.

Results: 2938 residents, mostly white males (78.5 %) with mean age of 70.04 (± 9.28) were admitted to the CLC after elective surgeries. 1899 and 1039 residents were admitted in the pre-CoVID and post-CoVID periods, respectively. Compared to pre-CoVID period, the LS was noted to be higher in the post-CoVID period {pre-CoVID period LS > 40 days (28.28%); post-CoVID period, LS >40 days (33.30 %) [RR:1.178, 95% CI: 1.052 to 1.317]}. Fewer individuals underwent elective surgery during the post-covid period, and those who did were more likely to extend their stay in the CLC beyond 40 days.

Conclusion: Based on CLC admission, we noted a decrease in the total number of elective procedures in the post-CoVID period. We also found that a long stay is more likely in the post-CoVID period. This may have been likely due to multiple factors, including increase in severity of baseline comorbidities in the post-CoVID period, delayed care after the pandemic, and increased frailty.

A158

Catch 22 - A Pragmatic Approach to Shared Decision-Making in Cardiac Amyloidosis

P. Pillai,¹ N. Agarwal,² S. Dev,³ M. Schmidt,⁴ A. Andrade.⁵
 1. Division of Geriatric Medicine, Banner - University Medical Center Phoenix, Phoenix, AZ; 2. Internal Med/Geriatric Med, Banner Health, Phoenix, AZ; 3. Cardiology, Southern Arizona VA Health Care System, Tucson, AZ; 4. School of Nursing, Vanderbilt University Medical Center, Nashville, TN; 5. Division of Cardiology, Banner - University Medical Center Phoenix, Phoenix, AZ.

Background: Cardiac amyloidosis is a rare disease with a relatively high prevalence in older adults, a population that is heterogeneous in prognosis and symptomatology. The diagnosis and management of cardiac amyloid, which can be a life-limiting illness and is well established in literature, however, poses challenges for clinicians as they navigate shared decision-making (SDM) to determine the best approach that respects the specific clinical context of their patient. Authors would like to suggest a framework for approaching SDM in this population.

Methods: Regional stakeholders gathered at a large Southwestern Medical Center to debate whether older adults with chronic heart failure should be routinely screened for cardiac amyloidosis. This debate elicited several key SDM domains specific to this patient population which are not well described elsewhere. A multi-center, multi-disciplinary panel of experts was formed to further develop these domains into an SDM framework with a theoretical underpinning based on the well-established Patient Priorities of Care (PPC) model.

Results: The framework consists of three steps. The first step involves educating the patient about their current clinical picture, the disease process, and what treatment might mean in their specific clinical context. The second step aims to identify what is important to the patient in terms of health-related quality of life and their specific personal treatment goals. The third step frames the clinician and patient as co-collaborators as they navigate current diagnostic technologies and treatment. Care is placed on discussion of how different diagnostic testing and treatment impact the domains of physical function, social function, cost, potential pitfalls, and how choices align with previously identified patient-specific goals.

Conclusion: Considering the wide variability of disease presentation and prognosis as discussed above, it is imperative to establish a framework that provides evidence-based solutions paired with thoughtful dialogue, to empower clinicians to engage in SDM that guides management aligning patient-centered goals and values.

A159 Encore Presentation

Development and Evaluation of a Patient-Reported G8 Screening Tool for Older Adults with Cancer

K. Swartz,¹ K. Wen,² A. Chapman,² T. Zhan.² 1. Family and Community Medicine Division Geriatrics and Palliative Care, Thomas Jefferson University, Philadelphia, PA; 2. Sidney Kimmel Cancer Center, Philadelphia, PA.

Background:

The Geriatric 8 (G8) is a validated tool to identify cancer patients who may require a comprehensive geriatric assessment (CGA). The G8 is administered by a healthcare professional, limiting its accessibility and usability. An electronic, patient-reported version could expand its reach, improving care coordination. This study aimed to implement and evaluate a self-reported G8 tool on Epic MyChart and assess concordance with the original G8 administered by healthcare professionals.

Methods:

The MyChart-G8 was adapted from the original-G8, maintaining all domains but optimizing questions for patient self-completion, adhering to health communication design principles. We implemented MyChart-G8 for all new patients > 65y/o with a cancer diagnosis scheduled in medical oncology. Nurses or medical assistants also administered the original G8 during the rooming process for a subset of patients. Kappa statistics were used to measure agreement between MyChart-G8 and original-G8 for individual items. The diagnostic accuracy of the MyChart-G8 was compared to the original-G8.

Results:

We identified a cohort of 167 patients who completed both MyChart-G8 and the original-G8. The frequency of abnormal scores (<14) for the original-G8 and MyChart-G8 was 40.0% and 67.7%, respectively. Discrepancies between the tools were partly attributed to less than moderate agreement for three items: neuropsychological problems (Kappa 0.15), BMI (Kappa 0.27), and self-rated health (Kappa 0.31). A MyChart-G8 cutoff of 12.5 demonstrated the best balance of sensitivity (0.51 ± 0.13) and specificity (0.90 ± 0.06) compared to the original G8.

Conclusion:

The integration of the G8 assessment into the electronic health record via MyChart helps alleviate resource constraints. Challenges persist in accurately assessing self-reported BMI and neuropsychological problems in electronic format without assistance. Patients identified as G8 abnormal through MyChart, as opposed to traditional rooming, often rated their self-reported health higher when directly asked, potentially influenced by social desirability bias. To enhance the accuracy and applicability of the patient-reported G8 tool, further large-scale testing, including comparisons with other validated frailty measures and exploration of novel electronic approaches, is essential.

A160

Recurrent Falls in Older Adults are Associated with Hospitalization and Mortality

S. M. Heslin,¹ E. Schoenfeld,² S. Rajupet,² H. Thode,¹ M. Keister,¹ K. Ladowski,¹ A. Singer.¹ 1. Emergency Medicine, Stony Brook University, Stony Brook, NY; 2. Family & Preventative Medicine, Stony Brook University, Stony Brook, NY.

Introduction: Annually, 1 in 4 older adults ages 65 and older fall, leading to a significant healthcare burden. It is estimated that roughly half will have a second fall within the subsequent 6 months. We describe the incidence of second falls leading to an Emergency Department (ED) visit and the associated mortality and morbidity in older adults with an ED visit for a fall.

Methods: We conducted a retrospective study using a cohort of 61 academic healthcare organizations participating in the TriNetX US Collaborative Network database that was accessed on July 27, 2023. We included all older adult patients visiting an ED for a fall during 2022 that was minor enough to be discharged home. We compared

two patient cohorts, one of patients having a return ED visit for another fall within 6 months of the index fall and the other of patients without a subsequent fall in the same time period. Primary outcomes were mortality and hospital admission.

Results: A total of 95,666 older adults visited an ED for a fall in 2022 and were stable for discharge. Of these, 15% adults had a repeat ED visit for a fall within 6 months of the index fall. Patients with repeat falls were older (77.3 vs 75.9, $P<0.001$), and more likely to have hypertension (73 vs 54%), prior MI (12 vs 6%), peripheral vascular disease (15 vs 8%), liver disease (15 vs 9%), COPD (22 vs 13%), CVA (14 vs 8%), diabetes (38 vs 26%), neoplasms (45 vs 32%), CKD (28 vs 16%), and heart failure (26 vs. 14%); $P<0.001$ for all. Patients with recurrent falls were more likely to be prescribed cardiovascular medications (80 vs 61%), CNS medications (83 vs 65%), opioids (68 vs 50%), sedative/hypnotics (58 vs 41%), antipsychotics (20 vs 10%), antidepressants (47 vs 28%), antiparkinsonian agents (9 vs 4%), and antivertigo agents (14 vs 8%); $P<0.001$ for all. Patients with a recurrent fall had a higher rate of hospital admissions in the 6 months after the index visit (40.7 vs 13.9%, OR 4.3 [95%CI, 4.1-4.4]) and a higher mortality rate (5.1 vs 3.2%, OR 1.6 [95%CI 1.5-1.8]).

Conclusions: Older adults who visit the ED for a minor fall who are discharged home are at high risk of a second fall and those who have a repeat fall within 6 months are at higher risk of mortality and hospital admission.

A161 Encore Presentation

Burnout in CNAs in Nursing Homes

S. Murphy, B. Lemack, S. Davis. *University of North Texas Health Science Center, Fort Worth, TX.*

BACKGROUND: Certified Nursing Assistants (CNAs) in nursing homes often face high levels of stress and burnout, adversely impacting their health and the quality of care they provide. The need for a comprehensive understanding of their specific challenges is vital for developing targeted interventions. This study investigates the relationship between burnout and psychological well-being in CNAs working in nursing homes, with a focus on how levels of emotional exhaustion, depersonalization, and personal accomplishment are associated with their overall psychological state.

METHODS: This is a cross-sectional study. Participants completed the “Collaborative Implementation Strategy to Increase COVID-19 Education and Training” offered by UNTHSC, which consisted of 8 modules that reinforced the skills and knowledge necessary for delivering high-quality and safe care to residents. One module from the training included the Maslach Burnout Inventory, a tool consisting of 22 items designed to assess three burnout dimensions: emotional exhaustion, depersonalization, and personal accomplishment. Respondents rate the frequency of their feelings or attitudes on a scale typically ranging from 0 (representing “never”) to 6 (representing “every day”). Thirty-two CNAs completed the survey, sharing experiences and feedback on various aspects of their work life.

RESULTS: Findings reveal a moderate level of emotional exhaustion (Mean=3.34). This dimension of burnout was characterized by feelings of emotional drain, being “used up” at the end of the workday, and morning fatigue. In contrast, CNAs displayed low depersonalization (M=0.60), indicating that empathy for patients remains intact despite challenges. They also reported a high sense of personal accomplishment (M=4.66) and relatively low stress levels (M=1.47), implying the presence of effective coping strategies and resilience in high-stress environments.

CONCLUSIONS: The study underlines the importance of targeted interventions that address the unique stressors CNAs face and emphasize supportive environments, reasonable workloads, and personal accomplishment enhancement strategies. The results provide crucial insights into burnout experiences among CNAs and affirm the necessity of continual research in this field for improving the health-care industry’s long-term care sector.

A162

“Follow-up in a few days”: Limitations to primary care access among older adults following emergency department discharge
C. Gettel,¹ J. Hartzheim,¹ T. Chera,¹ J. Galske,² L. Cameron-Comasco,³ F. Bellolio,⁴ L. Berrin,⁵ A. Venkatesh.¹ *1. Emergency Medicine, Yale University School of Medicine, New Haven, CT; 2. University of Connecticut School of Medicine, Farmington, CT; 3. Corewell Health, Royal Oak, MI; 4. Mayo Clinic, Rochester, MN; 5. Highland Hospital, Oakland, CA.*

Background: Older adults are at particular risk of clinical deterioration in the days after emergency department (ED) discharge. Rapid follow-up for older adults after ED visits is recommended by clinicians in the often-used ED discharge recommendation, “Follow-up with your primary care provider (PCP) in the next 3-5 days,” yet little data exists regarding this suggestion’s feasibility. Our objectives were to describe the proportion of older adults discharged from the ED able to access 4-day PCP follow-up and to evaluate patient-perceived success of the ED-to-community care transition.

Methods: We conducted a secondary analysis of a multi-center prospective observational cohort study of older adults (≥ 65 years of age) seeking emergency care. PCP follow-up within 4 days was assessed as the primary outcome. Additionally, a 12-item Care Transitions Score (CTS-12) was asked to participants on day 4 after the index ED visit. Individual question domains addressed the participant’s perceived preparedness for the ED care transition by inquiring about the time they were in the ED, their preparation to leave the ED, and their follow-up appointment plans. We used the t-test to compare the mean day 4 CTS-12 scores between those with PCP follow-up within 4 days to those without PCP follow-up.

Results: Of 223 older adults discharged from the ED, 26.0% obtained PCP follow-up within 4 days. The overall CTS-12 score was significantly higher for those that obtained 4-day PCP follow-up (36.8, 95% confidence interval [CI] 35.0-38.7) when compared to those that did not (34.1, 95% CI 32.7-35.5; $p=0.025$).

Conclusions: Approximately 1 in 4 older adults discharged from the ED obtained PCP follow-up within 4 days. Older adults that followed up with their PCP within 4 days had a more favorable perception of the ED care transition. Our work represents an important benchmark for how limited current access to PCP follow-up is as well as a tool in the CTS-12 to measure whether programs and initiatives are effective and patient-centered.

A163

End-of-life emergency department use among older adults: a nationally representative analysis

C. Gettel,¹ C. Kitchen,¹ C. Rothenberg,¹ Y. Song,¹ A. Venkatesh,¹ S. N. Hastings.² *1. Emergency Medicine, Yale University School of Medicine, New Haven, CT; 2. Duke University School of Medicine, Durham, NC.*

Objectives: As older adults at their end-of-life (EOL) face barriers to acute care and resource coordination in the outpatient setting, emergency departments (EDs) are increasingly the source of acute unscheduled care. Prior estimates of ED visitation at or near EOL are conflicting. We sought to characterize ED use during the final 7, 30, 90, and 180 days of life by Medicare beneficiaries.

Methods: We conducted a pooled cross-sectional analysis of the 2015-2020 Medicare Current Beneficiary Survey, a continuous survey of a nationally representative sample of Medicare beneficiaries that links to healthcare utilization claims data. We included assessed EOL outcomes among Medicare beneficiaries with a death date between 2015-2020. The primary outcome was ED use in the final 7, 30, 90, and 180 days of life. We calculated descriptive statistics of the sample and estimated zero-inflated negative binomial (ZINB) regression models for 30-day EOL ED use, controlling for key beneficiary characteristics.

Results: Our sample consisted of 3,595 Medicare beneficiaries, representing 12,606,642 nationally. There were 643 (18%), 1,252 (35%), 1,601 (45%), and 1,784 (50%) Medicare beneficiaries respectively with ED visits in the final 7, 30, 90, and 180 days of life. Within the logistic component of the model, a one-year increase in age (OR 1.04; 95% CI, 1.03-1.05) and having at least 2 chronic conditions (OR 1.42; 95% CI, 1.17-1.72) were associated with increased 30-day EOL ED use, while having ADRD (OR 0.54; 95% CI, 0.39-0.75) and being in hospice care during the year of death (OR 0.51; 95% CI, 0.42-0.61) were protective against 30-day EOL ED use.

Conclusions: One in three Medicare beneficiaries have an ED visit in the final 30 days of life. Our findings provide foundational epidemiological data and emphasize the impact of several key characteristics on older adult's ED use patterns at end-of-life.

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ASSOCIATIONS BETWEEN RHEUMATOID ARTHRITIS, FRAILITY STATUS AND MORTALITY IN OLDER ADULTS WITH BLADDER CANCER

M. Swaminathan,¹ S. Holt,¹ U. Makris,² P. Grivas,¹ S. Psutka,¹ N. Singh.¹ *1. University of Washington, Seattle, WA; 2. The University of Texas Southwestern Medical Center, Dallas, TX.*

Background: Bladder cancer is the second most common urologic cancer with a mean age of diagnosis of 73 years and a high burden of frailty and comorbidity. Importantly, among patients with bladder cancer, frailty is associated with an increased risk of mortality. Our objective was to evaluate associations between rheumatoid arthritis (RA), a chronic autoimmune disease, and all-cause and cancer-specific mortality in older adults with bladder cancer, adjusted for frailty.

Methods: In this retrospective cohort study, using the Surveillance Epidemiology and End Results cancer registry and linked Medicare claims data (SEER-Medicare), we included patients >65 years old with incident bladder cancer diagnosed between 2004 and 2017. Patients with a pre-existing diagnosis of RA were identified based on the presence of >2 ICD-10 codes >30 and < 365 days apart. A validated claims-based Frailty Index was derived from claims in the 12 months prior to bladder cancer diagnosis. Patients with a frailty score > 0.2 were categorized as frail. Separate Cox proportional hazards regression models evaluated the association between RA and frailty and 1) overall mortality and 2) bladder cancer-specific mortality, after adjusting for demographics, socioeconomic status, comorbidities, cancer stage, and receipt of guideline-directed bladder cancer treatment per stage. We evaluated the interaction between RA and frailty and performed stratified analyses by frailty status.

Results: We identified 99,418 patients with bladder cancer of whom 1751 (1.8%) had pre-existing RA. Among patients with RA, 923 (52.7%) were frail while 33,518 (34.3%) of patients without RA were frail (p<0.0001). The 5-year overall mortality was 32.8% versus 27.7% for patients with and without frailty. Among non-frail patients, RA was associated with an increased risk of overall mortality (aHR 1.11, 95% CI 1.04 - 1.20) but not among frail patients (aHR 0.94, 95% CI 0.84-1.04).

Conclusion: RA was associated with a higher risk of overall mortality in non-frail pts with bladder cancer. Our results provide important information that can be used in the management of patients living with multiple chronic conditions such as bladder cancer and RA.

A165

Life-Space, Advanced Life Events, and Quality of Late Life in New York City

M. K. Stewart,^{2,1} T. N. Gravano,⁴ T. J. Mielenz,³ C. K. Wong.¹ *1. Rehabilitation & Regenerative Medicine, Columbia University Irving Medical Center, New York, NY; 2. Health Promotion & Wellness, Rocky Mountain University of Health Professions, Provo, UT; 3. Epidemiology, Columbia University Mailman School of Public Health, New York, NY; 4. Gannon University, Erie, PA.*

Background: Health-related quality of life (HRQoL) has been associated with cognition, financial well-being, social networks, life-space mobility, and instrumental activities of daily living (IADL) in community-dwelling older adults, but less so for those in late life (≥75y) aging in urban environments. The purpose of this study was to determine the magnitude of association of each concept in explanatory models with physical and mental HRQoL for those ≥75y in New York City (NYC). Subgroup differences between age categories, sex, past occurrences of advanced life events (ALE), and the presence of entryway steps were also investigated.

Methods: This cross-sectional study interviewed 51 older adults ≥75y living in NYC. Measures collected: Short Form-12v2® Health Survey Physical & Mental Component Summaries (PCS & MCS); age, sex, presence of ALE (falls, hospitalization, widowhood, difficulty maintaining home, cognitive impairment), presence of steps; Life-Space Assessment (LSA); Mini-Cog; Lubben Social Network Scale; Financial Well-Being Scale; Stineman's IADL Stages. Multivariate explanatory regression models for PCS & MCS included each concept associated with aging (p<.05). Independent t-tests assessed subgroup differences with Bonferroni correction.

Results: LSA was the only variable associated with PCS scores ($\beta = .43, p = .006$). None were associated with MCS. Women had lower LSA scores than men ($p = .006$); those with ≥1 ALE had greater IADL limitations than those with none ($p = .001$). Individual models adjusting for age and sex reinforced LSA's association with PCS ($p = .003$).

Discussion: Only LSA was associated with PCS. Research suggests all concepts are related to HRQoL and LSA is associated with MCS & PCS. This was not observed in our sample. Differences in LSA scores between men & women mimic previous reports, but reasons remain unclear. A link between ALE and IADL limitations warrants further examination.

Conclusion: LSA emerged as the only concept associated with physical HRQoL. Sex differences in LSA scores and a novel link between ALE & IADL limitations present opportunities for future research with larger samples.

A166 Encore Presentation

Unique Motivational Targets for Exercise Behavior Change Among Non-Frail, Pre-Frail and Frail Older Adults.

L. Finch,² S. Brown,² C. Taylor,¹ B. Mendez,³ S. Sawicki,¹ A. Gonzolez,¹ M. Madariaga,¹ D. Rubin,¹ N. Mir,¹ L. J. Gleason,¹ M. Danilovich,⁴ D. Conroy,⁵ M. Huisinigh-Scheetz.¹ *1. University of Chicago Division of the Biological Sciences, Chicago, IL; 2. NORC at the University of Chicago, Chicago, IL; 3. University of Illinois Chicago, Chicago, IL; 4. CJE SeniorLife, Leonard Schanfield Research Institute, Chicago, IL; 5. The Pennsylvania State University College of Health and Human Development, University Park, PA.*

Background: Exercise is the most effective frailty mitigation intervention studied to date, yet, frail adults may face unique hurdles to exercise behavior change. Our objective was to compare exercise behavior change factors among frailty subgroups.

Methods: We analyzed cross-sectional survey and semi-qualitative data from n=101 community-dwelling, predominantly minority older adults. Factors were organized by the Capability, Opportunity, Motivation – Behavior change framework. We used the frailty phenotype to categorize participants by their “capability” as non-frail (n=30),

pre-frail (n=59) or frail (n=12). We assessed “opportunity” factors including barrier and resource identification, local program awareness, the Exercise Barriers Subscale (EBS), and exercise preferences. We also assessed “motivation” factors including the Self-Rated Abilities for Health Practices Exercise Subscale (SRAHPES); perceived exercise need, benefits and harms; the Outcome Expectations for Exercise Scale (OEEES); and personal health goals. We used Kruskal-Wallis and chi-square tests to identify between-group quantitative differences. Semi-qualitative responses were evaluated for thematic content.

Results: Frail adults had worse EBS scores (p=0.005); reported more barriers and fewer resources; were less aware of local facilities in which to exercise; and had a narrower scope of exercise preferences. Frail adults also had worse SRAHPES scores (p=0.004); were more likely to indicate they needed exercise; perceived more psychological exercise benefits than physical; and had worse OEEES scores (p<0.001). One-year health goal themes were similar among non-frail, pre-frail and frail, the majority identifying functional goals.

Conclusions: This study identified opportunity and motivation factors unique to frail adults that could inform behavior change discussions and interventions in frail adults.

A167

Sleep Disturbance and Mental Health Among Middle-Aged and Older Adults with OSA Who No Longer Use PAP

B. C. Barretto,¹ M. R. Kelly,^{1,2} C. H. Fung,^{1,2} A. Ryden,^{1,2} C. Stepnowsky,^{3,4} A. Erickson,¹ M. Zeidler,^{1,2} D. A. Ganz,^{1,2} M. N. Mitchell,¹ L. Partch,¹ L. Pearson,¹ A. Rodriguez,¹ K. Josephson,¹ J. L. Martin,^{1,2} C. Alessi.^{1,2} *1. VA Greater Los Angeles, Los Angeles, CA; 2. University of California, Los Angeles, Los, CA; 3. VA San Diego, Los Angeles, CA; 4. University of California, San Diego, San Diego, CA.*

Background: Positive airway pressure (PAP, first-line therapy for obstructive sleep apnea [OSA]) improves many health outcomes. Unfortunately, over 50% of patients with OSA (particularly older adults) discontinue PAP (or have limited use) a year or more after initiating treatment. Clinicians may focus efforts to increase PAP use in those who report sleep disturbance or related symptoms. In one urban VA medical center, we identified Veterans with moderate or severe OSA (apnea-hypopnea index [AHI] ≥ 15) with no or limited objective current PAP use, and tested for differences in sleep symptoms and mental health between middle-aged (MA, 50-64.9 yrs) and older adults (OA, ≥ 65 yrs).

Methods: Participants (with moderate/severe OSA prescribed PAP ≥ 1 year ago with no/limited current use) completed assessments of sleep (Pittsburgh Sleep Quality Index [PSQI]), Epworth Sleepiness Scale [ESS], Insomnia Severity Index [ISI], function (Functional Outcomes of Sleep [FOSQ-10]), anxiety (GAD7), and mental health (PROMIS29v2.0 MH). MA and OA were compared using t-tests and regression analyses.

Results: We enrolled 136 [72MA, 64OA] Veterans (89% male, 20% Hispanic, 35% African American, 10% American Indian/Alaska Native, mean comorbidity index [CI] 5.6) with moderate/severe OSA (mean AHI 37.4) and no/limited current PAP use. Sleep disturbance was common. However, in regression analyses (adjusting for gender, race/ethnicity, education, CI, AHI), compared to MA, OA reported less sleep disturbance (lower [i.e., better] PSQI [10.5 vs 8.7 in MA and OA, respectively], ESS [9.6 vs 7.6] and ISI [13.8 vs 9.1]), better sleep-related function (FOSQ-10 13.9 vs 15.6), less anxiety (GAD7 7.5 vs 4.6) and better overall mental health (PROMIS-29v2.0 MH 42.8 vs 48.2) (all P<.05).

Conclusions: Compared to MA, OA with previously diagnosed moderate or severe OSA and no or limited current PAP use report less sleep disturbance and better mental health. Given the health benefits of OSA treatment, these findings suggest that reported sleep disturbance and related symptoms may not adequately identify older adults who could benefit from efforts to improve PAP use.

A168

Innovation of a new cognitive test for detection of poststroke cognitive impairment in a sample of elderly Egyptians

S. A. Sayed, S. A. Hamza, N. N. Adly, H. M. Tawfik. *Geriatric and Gerontology department, Faculty of Medicine, Ain-Shams University, Cairo, Egypt.*

Background: Stroke is one of the leading causes of mortality and disability Worldwide. Poststroke cognitive impairment and dementia are common, increasing furthermore morbidity, and disability.

Objectives: Innovation of a new cognitive assessment test for early detection of dementia in the poststroke elderly population suitable for both Egyptian illiterate and educated patients, under the name of the post-stroke Ain-Shams cognitive assessment (PSACA) test.

Methodology: The PSACA test measures various cognitive domains including memory, executive function, attention, language, orientation, and visuospatial functions. and scored out of 69 points. The first step was to detect the validity and reliability of the new test on a pilot of 30 elderly participants without stroke comparing the test with the MMSE test. Then our cross-sectional study was conducted, recruiting 120 community-dwelling Egyptian elderly participants aged 60 years and above, at least 6 months after the cerebrovascular event. The participants were recruited from Ain-Shams University Hospital's Neurology and Geriatric clinics. Patients were diagnosed clinically to have vascular dementia by NINDS AIREN criteria and Hachinski ischemic scale with confirmation of cognitive impairment by MMSE which was used as the gold standard test. Comprehensive geriatric assessment was performed including detailed history taking, assessment for function, and depression.

Results: The Mean age of the patients was 69.17, more than half of the patients were males and married and >46% were illiterate. More than half of the patients had more than one risk factor for stroke, about 15.8% had hypertension, and 4.2% of them had DM. The prevalence of cognitive impairment assessed by MMSE in our post-stroke patients was 33.3%. The test was correlated with the MMSE test and is valid (criterion-related validity). Internal consistency was measured, and Cronbach's Alpha was 0.72. Inter-item correlation revealed that most items of the test scores ranged between 0.63- 0.73. The cut-off point of the PSACA test for diagnosis of dementia among post-stroke patients was ≤ 54.5 , with a sensitivity of 90% and specificity of 78.7%.

Conclusion: the PSACA test is valid and reliable and can be administered for assessment of poststroke cognitive impairment and dementia.

A169

Geriatric Assessment Scores in a Population-based Sample of Homeless Older Adults

K. Breder,^{1,3} V. Yu.^{2,3} *1. Nursing, New York University Rory Meyers College of Nursing, New York, NY; 2. New York University Grossman School of Medicine, New York, NY; 3. Center for Urban Community Services, New York, NY.*

Background: Homelessness accelerates aging, yet the health dimensions accelerated by homelessness are unclear. The purpose of this paper is to report and analyze geriatric assessment scores among a population-based sample of homeless and formerly homeless aging adults in New York City who reside in supportive housing sites, transitional housing sites.

Methods: All participants are homeless or formerly homeless and are served by a social services agency in New York City. Assessments were conducted between May 2022 and August 2023 by primary and psychiatric care providers at routine medical appointments, which took place at each participant's residence. A total of 188 diverse adults were screened using: Katz Activities of Daily Living (ADL), Mini-Cog, Elderly Mobility (EMS), and Pain, Enjoyment of Life, and General Activity (PEG).

Results: Overall, 7% of 128 Katz ADL respondents reported moderate to severe impairment in activities of daily living; 21% of 169 Mini-Cog respondents scored positive for dementia; 29% of 111 EMS respondents reported mobility limitations unable to walk 250 feet or more; and 46% of 91 PEG respondents reported moderate to severe pain.

Conclusion: Our findings support prior research that homelessness accelerates aging on dimensions of pain, cognition, and mobility. Relatively few participants residing in supportive housing sites reported moderately or significantly impaired ADLs, which may reflect the requirements for participants to maintain services in these settings. We discuss the delicate interplay between aging and maintaining services across different housing support sites.

A170

Deprescribing of Potentially Inappropriate Medications (PIMs) Across Four Geriatric Care Settings

J. Davila,¹ A. Wen,^{1,2} C. Takenaka,^{1,2} K. Kurasaki,¹ P. J. Ayau Aguilar,¹ K. Chang,¹ K. Choo Loy,¹ G. Fujikami,^{1,2} J. Moore,² S. Racska,^{1,2} K. Masaki.^{1,2} *1. Geriatric Medicine, University of Hawai'i System, Honolulu, HI; 2. Geriatrics, Queen's Medical Center, Honolulu, HI.*

INTRODUCTION: Polypharmacy, commonly defined as five or more medications, has high prevalence among older adults. Appropriate deprescribing can help reduce common problems associated with polypharmacy, including drug-drug interactions, adverse drug events and falls. We conducted a quality improvement project to develop a deprescribing protocol for geriatric patients using Beers criteria to help deprescribe PIMs.

METHODS: Physicians and NPs working in four service lines (inpatient, post-acute and long-term care, outpatient and home-based primary care, HBPC), each identified 3 patients with polypharmacy (5 or more routine meds) who had not seen a geriatrician within the past year. Patients enrolled in hospice were excluded. Providers completed a pre-intervention data collection form which included total number of medications, names and drug categories, high-risk medications, dosing, frequency, and adverse drug reactions. Providers provided recommendations for dose reduction, tapering, or discontinuation. Post intervention data were collected at 1 month or at discharge for hospital patients, at 3 weeks or at discharge for SNF patients, and at 3 months or at death for clinic and HBPC patients. Pre and post intervention data were compared using paired t-tests.

RESULTS: We analyzed preliminary data on 60 patients from 20 providers. Complete data collection will include N=112 patients. There was a significant reduction in number of medications per patient after intervention for routine meds (10.4 vs. 9.1, p=0.0025), PRN meds (2.2 vs. 1.6, p=0.0004), total meds (12.5 vs. 10.8, p=0.0003), and Beers criteria meds (2.3 vs. 1.5, p<0.0001). We saw deprescribing trends in medication classes of sedatives, muscle relaxants, anticoagulants, antihistamines/anticholinergics, opioids and antipsychotics.

CONCLUSIONS: Using Beers criteria while reviewing the patient's medications reduced the amount of PIM medications prescribed. We saw trends in reduction of all high-risk medication classes. Of the Beers-criteria medications, opioids were the most commonly prescribed. Data from this QI project will inform educational interventions on deprescribing for primary care physicians.

A171

Geriatric Syndromes During Care Transitions

L. E. Broussard,¹ K. G. Tipps,¹ S. F. Simmons,^{1,2} E. K. Hollingsworth,¹ K. Kang,³ J. Liu.¹ *1. Vanderbilt University Medical Center, Nashville, TN; 2. VA Tennessee Valley Healthcare System, Nashville, TN; 3. Vanderbilt University, Nashville, TN.*

Background:

Geriatric syndromes are common conditions that do not fit into specific disease categories but have implications for functionality and quality of life in older adults. Prior studies show that geriatric syndromes persist during care transitions for older patients, although there can also be significant within-individual variability. Understanding the prevalence and trajectory of these syndromes during care transitions from hospitalization to postacute care (PAC) and discharge to home may help explain outcomes post-hospitalization.

Methods:

This was a prospective cohort study conducted at Vanderbilt University Medical Center. Participants included hospitalized older adults (mean age 75.7 years) who discharged to PACs. Research personnel conducted standardized assessments of the following geriatric syndromes at hospitalization and at 7 and 90 days following PAC discharge: cognitive impairment, depression, pain, incontinence, falls, pressure ulcers, and unintentional weight loss. Analysis focused on complete cases across both transitions, with descriptive statistics on demographics and number of geriatric syndromes at each time point. Within-individual stability of each syndrome was assessed across each transition. The proportions of each syndrome present at both time points (syndrome persistent), only at the first time point (syndrome lost), or only at the second (syndrome gained) were evaluated.

Results:

165 patients (82.4% White, 17.6% Black) completed all 3 study time points. The mean number of geriatric syndromes present per subject was 3.06 ± 1.28 at enrollment (hospitalization), 1.93 ± 1.26 at 7 days post PAC discharge, and 2.08 ± 1.19 at 90 days post PAC discharge. All syndromes were prevalent at each time point. Depression, incontinence, and unintentional weight loss were the most common syndromes that persisted following hospital discharge, whereas pain was one of the syndromes that showed improvement.

Conclusions:

Geriatric syndromes are common among hospitalized older patients with multiple syndromes likely to persist following hospital discharge. These findings highlight the importance of continued screening for common geriatric syndromes by providers across all clinical settings, particularly for older patients experiencing frequent care transitions.

A172 Encore Presentation

The association of urbanization with frailty status in China

H. B. Spangler,¹ D. H. Lynch,¹ A. Howard,^{2,3} H. Tien,⁴ S. Du,⁴ B. Zhang,⁵ H. Wang,⁵ P. Gordon Larsen,^{4,3} J. A. Batsis.^{1,4}

1. Geriatrics, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Biostatistics, The University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC; 3. The University of North Carolina at Chapel Hill Carolina Population Center, Chapel Hill, NC; 4. Nutrition, The University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC; 5. Chinese Center for Disease Control and Prevention National Institute for Nutrition and Health, Beijing, China.

Background:

Frailty is a state of physical vulnerability leading to worse health outcomes for older adults, particularly those in rural areas. We developed a frailty index to examine if there is a difference in frailty status between older adults in urban and rural areas. **Methods:** Participants (N=7,430) were ≥55 years of age from the 2018 wave of the China Health and Nutrition Survey (CHNS) study. A 37-item

frailty index (FI) was calculated. Deficits were scored (good=0, fair=0.5, and poor=1) based on subjective and objective physical function, anthropometrics, cognition, quality of life, and comorbidities. Frailty was classified as robust (<0.08), pre-frail (0.08-0.24), and frail (≥ 0.25). Urbanization was measured using an established community-based urbanization index, categorized into tertiles. Multinomial logistic regression models explored the differences between frailty status (robust, pre-frail, and frail) and urbanization level (low, moderate, high), with minimally (age, sex) and fully (age, sex, education, income) adjusted models. **Results:** Mean age 66.7 \pm 8.0 years (47.2% men). Prevalence rates for robust, pre-frail, and frail were 7.0%, 75.6%, 17.6%, respectively. In the minimally adjusted model, individuals residing in areas of low urbanization compared to high urbanization had higher odds of being prefrail vs robust (2.21; CI 1.75-2.80), frail vs robust (3.14; 2.39-4.12), and frail vs prefrail (1.42; 1.21-1.66) groups. In the fully adjusted model, associations were weaker in magnitude but still statistically significant with the exception of differences by urbanization between pre-frail and frail. **Conclusions:** Older adults living in rural areas in China had higher odds of pre-frailty and frailty than their urban counterparts when using a frailty index. Future studies should compare our findings of higher pre-frailty and frailty rates in older adults in rural areas using alternative frailty assessments.

A173
Cognitive Impairment and Mesial Temporal Lobe Epilepsy (MTLE)

P. A. Walaliyadda, F. Kobylarz. *Family Medicine, Rutgers University New Brunswick, New Brunswick, NJ.*

Background: A growing body of evidence suggests an association between Alzheimer Dementia (AD), Frontotemporal Dementia (FTD), and epilepsy. We present a case of mesial temporal lobe epilepsy (MTLE) with history of rapidly progressive memory loss, social disinhibition and cognitive impairment resulting in loss of occupation.

Case: A 58-year-old male with a past medical history significant only for marijuana use presents to a geriatric clinic for evaluation of memory loss. His symptoms include a two-year history of progressive memory loss thought to have started after the patient's mother suffered a series of health issues, causing significant stress. Other symptoms included social disinhibition, repeated conversations, slowed processing, getting lost, word-finding issues resulting in voluntary termination of employment. Neuropsychological assessment revealed significant deficits in all cognitive domains. Diagnostics, including CBC, CMP, TFTs, B12, HIV, RPR, were normal. He was negative for chronic infarct, hemorrhage, vasculitis, limbic or autoimmune encephalitis, viral, bacterial, or fungal meningoencephalitis. Initial attempt to obtain amyloid and p-Tau biomarkers was unsuccessful due to the study being technically difficult. A repeat is pending. FDG-PET demonstrated solitary left mesial temporal hypermetabolic focus, found on seizure protocol MRI to be mesial temporal lobe sclerosis. This area was surrounded by larger left anterior mild diffuse hypometabolism. vEEG demonstrated L temporal slowing without epileptiform discharges. Neurology and psychiatry evaluations were obtained. He was initially treated with an SSRI for major depressive disorder related to loss of occupation, but self-terminated therapy due to perceived lack of effect. Donepezil was added with no improvement.

Conclusion:

AD and FTD patients have a higher risk of developing MTLE than the general population. This case illustrates the importance of amyloid and p-Tau biomarkers to establish diagnosis and increase therapeutic specificity to allow for consideration of anti-amyloid and potentially antiepileptic therapy. It also showcases the potential utility of FDG-PET evaluation of dementia, to evaluate for MTLE with nonlesional MRI or equivocal EEG. in patients with dementia, given

its increased prevalence in this population. Further research is needed to understand potential diagnostic and therapeutic avenues in AD associated with MTLE.

A174
Veterans With Dementia Are Frequently Lost to Palliative Care Follow-up

W. Ciurylo,¹ V. Smith,² E. Eusebio,² M. Mader,³ S. Sanchez-Reilly,¹ M. Restrepo.⁴ *1. Geriatrics, The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2. Palliative Care, The University of Texas Health Science Center at San Antonio, San Antonio, TX; 3. The University of Texas Health Science Center at San Antonio, San Antonio, TX; 4. Pulmonary/Critical Care Medicine, The University of Texas Health Science Center at San Antonio, San Antonio, TX.*

Background: Patients established with palliative care are routinely lost to follow-up. This rate may be as high as 21%. 'No shows' are the most commonly reported reason for loss to follow-up. Whether this problem is seen with older veterans with dementia has not been specifically explored.

Methods: This is an administrative database observational study of veterans who had a palliative care consultation within the South Texas Veteran Health Care System (STVHCS) over the five-year period of August 1, 2017, to July 31, 2022. Veterans received their initial palliative care consultation in the inpatient or outpatient setting. Veterans who died within one year of the index date were excluded. The primary outcome was completion of a follow-up. The aim of this study was to assess the rate of follow-up in veterans with dementia who received a palliative care consultation.

Results: 3155 veterans were identified. 517 (16.4%) veterans were identified to have dementia by ICD-10 codes. Of that cohort, 113 (21.8%) maintained their outpatient follow-up. Within the overall population, 370 (11.7%) veterans maintained their outpatient follow-up. Factors that favored outpatient follow-up included increased age (mean 70.0 (68.2-71.8) vs 64.5 (64.0-65.0)), increased Charlson comorbidity index (4.43 (4.15-4.72) vs 3.00 (2.90-3.11)), and presence of family meeting (28% rate of follow-up vs 10.7%).

Conclusion: Though rate of follow-up is better than the general veteran population, patients with dementia and a palliative care consultation are frequently lost to follow-up. Family Meetings may improve rate of continuity of care. Limitations of this study include inability to stage severity of dementia or know what the primary reason for palliative consultation was. Reason for patient being lost to follow-up could not be explored as well.

A175
Pain, Pain, Go Away! Comparing Topical Diclofenac vs Topical Lidocaine creams for Mild Osteoarthritis Treatment

C. Guidry, D. Ramamurthi. *Family Medicine, Ochsner University Hospital and Clinics, Lafayette, LA.*

Osteoarthritis (OA) is a common condition with incidence directly proportional to the increasing age of the US population, and is prevalent in 66% of all geriatric patients. Evidence-based treatments are meant to modify risk factors, preserve joint function, and relieve pain. Mild OA can present with minimal, intermittent pain that lifestyle interventions alone may not relieve. OA therapies should not interact with the patient's current medications, which make topical therapies appealing. A Cochrane review found 60% of patients achieved at least 50% pain reduction with topical NSAIDS, comparable to oral formulations, without the adverse effects.

Our study set out to compare two popular topical pain relievers for mild OA and determine which was superior. As a single center, single IRB study in a rural geriatric clinic, 50 patients were recruited over a 3 month period. This was done unblinded to allow for even

distribution of sex and race and represent the clinic population overall. Inclusion criteria were diagnosis of mild OA with pain in shoulders, elbows, and/or knees, and minimum age 65. Exclusion criteria were those with severe disease seen on imaging, those taking opioids, prior or current CSI procedure, or history of arthroscopy/joint replacement. Participants were assigned to either over-the-counter (OTC) diclofenac 2% cream or OTC topical lidocaine 4% cream, unblinded, and given the same application directions. Pre- and post-intervention questionnaires were conducted. The primary outcome variable was pain reduction assessed via 0-10 pain scale questionnaire scoring. Secondary variables were improved mobility, sleep, and mood, also assessed from the questionnaire. The results showed that there was a larger decrease in comparative pain scores with the topical lidocaine arm than the topical diclofenac arm. Although there were higher pain scores overall reported in female vs male, there were no significant differences in efficacy of the medications between male and female, or between Caucasian vs African American populations, which are the primary demographics of our clinic. From these findings, we plan to recommend lidocaine as a preferred topical treatment for mild OA for our geriatric patients. Further study and research will be needed to look at adverse effects of topical lidocaine over time with longer term use, comparing lidocaine patch, dosage strength percentages, and other variables.

A176
Exploring knowledge and Interest in using Transcranial Direct Current Stimulation for Neuropsychiatric Symptoms in Dementia

R. A. Mojica Castillo. *Geriatric Medicine, Stanford University, Salinas, CA.*

Background: Managing neuropsychiatric symptoms (NPS) in patients with dementia (PWD) with non-pharmacological measures is effective yet can be time-consuming and resource-intensive. Pharmacological interventions for NPS, while easier to implement, cause side effects and increase mortality. Transcranial Direct Current Stimulation (tDCS) involves the application of direct current via surface electrodes on the scalp achieving modulation of neuronal membrane potentials. In preliminary studies, tDCS improved cognition and decreased NPS in PWD with few side effects, yet it is not widely available outside of research. Our objective was to understand how providers address NPS and explore their knowledge and interest in using non-invasive brain stimulation like tDCS.

Methods: A survey was distributed via email to multi-disciplinary providers involved in dementia care at a University-based hospital and an affiliated Veterans' Affairs medical center. The survey consisted of multiple choice questions addressing specialty, practice duration, patient characteristics, treatments recommended for NPS in PWD, and knowledge and interest in tDCS.

Results: A total of 20/36 providers responded to the survey (55.5%). Most respondents (80%) indicated that between 25-49% of their patients with dementia had NPS. All (100%) providers indicated they would recommend non-pharmacological interventions to treat NPS in the appropriate clinical setting; 90% would recommend antidepressants and 80% would recommend antipsychotics. Knowledge of tDCS for NPS was low, with 90% indicating no or little knowledge of tDCS, and 85% indicated they were interested in learning about tDCS.

Conclusions: Providers surveyed reported that NPS is common in their patients and they most commonly manage it with nonpharmacologic treatment as well as antidepressants and antipsychotics. There was little knowledge but high interest in learning about tDCS for these symptoms. tDCS shows promise for addressing NPS as a noninvasive, portable treatment with minimal side effects. Although it is still in its infancy in terms of application and research, it has shown potential for beneficial effects on cognition and decreased severity of NPS, next steps include educating providers about the evidence for tDCS and to explore how it could be used in clinical practice.

A177
The Association between Adverse Childhood Experiences and Falling in Adults and Older Adults, US 2020 BRFSS data.

C. A. Reyes-Ortiz,¹ J. M. Ocampo-Chaparro,² A. Campo-Arias,³ E. Horne,¹ P. V. Sosa-Sarmiento,² J. S. Luque.¹ *1. College of Pharmacy & Pharmaceutical Sciences, Institute of Public Health, Florida Agricultural and Mechanical University, Tallahassee, FL; 2. Medicina Familiar, Geriatria, Universidad del Valle, Cali, Colombia; 3. Universidad del Magdalena Facultad de Ciencias de la Salud, Santa Marta, Colombia.*

Background: Adverse Childhood Experiences (ACEs) include early cumulative stress with potential health effects later in life. Previously, we reported traumatic events (e.g., abuse, discrimination, or stressful life events) associated to falling among older adults in other countries. However, there is a gap in the literature linking ACEs with falling in the United States (US) populations. Our objective was to assess the association between ACEs and falling among persons aged ≥ 45 in the US.

Methods: This is a cross-sectional study, a secondary analysis using the 2020 Behavioral Risk Factor Surveillance System (BRFSS) survey from 22 states of the US. Persons aged 45-80 were included (n=84,368). The dependent variable, falling, was defined as any fall during the past 12 months. The main independent variable, ACEs, has two domains: 1- abuse (physical, emotional, sexual), and 2- household dysfunction (parents' divorce, domestic violence, a family member in prison, using drugs, or having a mental disorder), total score 0-8. Complex survey analyses were completed using the SAS version 9.4.

Results: 43.7% of participants were age ≥ 65 , 53.9% were female and 74.5% were Whites; 25.6% have fallen, and 59% had ≥ 1 ACE. In multivariate logistic regression analysis, compared to those without ACEs, participants with 1, 2 or 3, and ≥ 4 ACEs have increased odds of falling (all $p < .001$, see Table). Other factors associated with higher odds of falling were age, depression, poor self-rated health, multimorbidity, and functional difficulties. By contrast, factors associated with lower odds of falling were being married and Black ethnicity compared to Whites.

Conclusions: ACEs are an additional risk factor for falling among adults and older adults in the US. When exploring determinants for falling, practitioners should also consider ACEs and other traumatic events early in life.

Weighted Multivariate Logistic Regression Analysis*

ACEs	OR 95% CI
0	1.00
1	1.2 (1.2-1.3)
2-3	1.4 (1.3-1.5)
≥ 4	1.7 (1.6-1.8)

* Adjusted for all other variables

A178
Urinary Incontinence and Physical Performance Measures in Older Women.

T. Sanses,¹ A. S. Ryan,² D. L. Davis.³ *1. Howard University College of Medicine, Washington, DC; 2. Department of Medicine, University of Maryland School of Medicine, Baltimore, MD; 3. Department of Diagnostic radiology and Nuclear Medicine, University of Maryland School of Medicine, Baltimore, MD.*

Background: Urinary Incontinence (UI) is a common geriatric syndrome. Our goal is to explore bidirectional relationship between UI and functional/mobility impairments at the level of shared risk factors and to determine the most effective treatment for UI in older women. The objective of this study was to assess the correlations between UI and physical performance measures in older women.

Methods: Women aged ≥ 65 years with UI based on a 3-day bladder diary completed UI questionnaires (Urinary Distress Inventory [UDI-6], Incontinence Impact Questionnaire [IIQ-7], and

Medical Epidemiologic Social Aspect of Aging [MESA]) and physical performance evaluation (Modified Physical Performance Test (MPPT; range 0–36), Short Physical Performance Battery (SPPB; range 0–12), and other physical performance measures). Descriptive statistics and Spearman’s correlation coefficients evaluated study variables and associations between UI and physical performance measures.

Results: Women (n=38) were 74.0±5.0 years old with mean body mass index 31.83±8.1 kg/m². There were 60.5% (n=23) Black, 7.9% (n=3) Hispanic, 28.9% (n=11), and 2.6% (n=1) mixed race women. Spearman correlation coefficients generally showed an inverse association between patient-reported UI and physical performance measures (Table 1). Higher UI severity corresponded to lower mobility and function. Lower MPPT score (r = -0.46; P = <0.01) and lower SPPB score (r = -0.37; P < 0.05) were significantly associated with greater negative impact of UI on quality of life as measured by the IIQ-7.

Conclusions: Inverse associations between UI severity and physical performance measures suggests bidirectional relationship between UI and functional/mobility impairments at the level of shared risk factors in geriatric syndromes. Effective UI treatment strategies in older women should include the evaluation and treatment for both UI and functional/mobility impairments.

Table1: Spearman’s Correlations Between Urinary Incontinence and Physical Performance Measures

Outcomes	Urinary Distress Inventory (UDI-6)	Incontinence Impact Questionnaire (IIQ-7)	Stress Urinary Incontinence	Urgency Urinary Incontinence
Short Physical Performance Battery	-0.28	-0.37*	-0.37*	-0.15
Modified Physical Performance Test	-0.45**	-0.46**	-0.47**	-.28
Timed Up and Go	0.23	0.27	0.24	0.09
Gait speed	-0.27	-0.36*	-0.40*	-0.17
Chair rise	0.13	0.11	0.20	0.01

* p-value <0.05

** p-value 0.01

**A179 Encore Presentation
Interdisciplinary Evaluation of Older Women with Urinary Incontinence.**

T. Sanses,¹ G. C. Armendariz-Aguirre,¹ M. Araya,¹ A. S. Ryan,² D. L. Davis.² 1. Howard University College of Medicine, Washington, DC; 2. University of Maryland School of Medicine, Baltimore, MD.

BACKGROUND: Urinary Incontinence (UI) is a common geriatric syndrome. The shared pathophysiology risk factors for UI geriatric syndrome include older age, functional and mobility impairments. Our goal is to explore bidirectional relationship between UI and functional/mobility impairments at the level of shared risk factors and to determine the most effective treatment for UI in older women. The objective of this study was to develop an interdisciplinary approach to evaluate UI, functional/mobility impairments, and pelvic floor and gluteal muscles quality before and after a 12-week multimodal exercise UI program.

METHODS: The study included the evaluation of 1) UI and pelvic floor muscle strength, 2) physical performance, and 3) magnetic resonance imaging (MRI) of levator ani muscles defects and gluteal muscles fatty infiltration (FI). The primary outcome was total UI episodes on a 3-day bladder diary after the intervention. Descriptive statistics were performed. Paired sample t-test compared the means in UI and physical performance measures pre- and post-intervention.

RESULTS: Total of 7 women completed the intervention. Women were 73.3±6.2 years old with mean body mass index 27.7±6.4 kg/m². Women were 57.1% (n=4) Black, 28.6% (n=2) Hispanic, and 14.3% (n=1) (mixed race).

There was a significant improvement in UI and pelvic floor muscles strength after the intervention (Table 1). There was no improvement in physical performance except the time needed to put on and off jacket decreased. Baseline MRI evaluation showed moderate levator ani muscle defects (mean 3.3; range 2-5) and moderate

FI for composite Gmed/Gmin (mean 21.2%; range: 14.4-35.1%) and composite Gmax (mean 22.8%; range: 12.8-39.9%) muscles.

CONCLUSION: Women reported improvement in UI but not in physical performance after the intervention. Baseline MRI evaluation revealed moderate levator ani muscle defects and moderate gluteal muscle fatty infiltration. Our interdisciplinary approach allows the evaluation of shared pathophysiology risk factors in UI geriatric syndrome.

Outcomes

Outcomes, n=7	Pre-intervention Mean (SD)	Post-Intervention Mean (SD)	P-value
Total number of all UI episodes (3-day bladder diary) (Primary Outcome)	8.9 (7)	.7 (1.2)	.03
Urogenital Distress Inventory (Score 0-100)	44.4 (11.1)	18.2 (16.3)	<0.01
Incontinence Impact Questionnaire (Score 0-100)	35.3 (14.2)	10.2 (8.9)	.01
Stress Incontinence Sub-score (Range 0-27)	8.1 (3.8)	2.1 (3.8)	.02
Urge Incontinence Sub-score (Range 0-18)	7.3 (2.1)	3.6 (2.9)	.04
Patient Global Impression of Severity (Range 1-4)	2.9 (1.4)	2.0 (1.3)	0.05
Pelvic Floor Muscle Strength, Oxford Scale Score (0-5)	1.6 (1.5)	3.57 (1.8)	.02

SD - Standard Deviation

A180

Factors Associated with Persistent Dysphagia among Never-Intubated Institutionalized Older Adults with COVID-19 Infection.

C. A. Reyes-Ortiz,¹ M. A. Salazar Moreno,^{2,3} J. L. Zambrano-Urbano,^{2,4} J. M. Ocampo-Chaparro.^{5,2} 1. College of Pharmacy & Pharmaceutical Sciences, Institute of Public Health, Florida Agricultural and Mechanical University, Tallahassee, FL; 2. Medicina Interna, Universidad Libre - Campus Cali, Cali, Colombia; 3. Universidad Nacional de Colombia, Bogota, Colombia; 4. Universidad de Narino, San Juan de Pasto, Colombia; 5. Medicina Familiar, Geriatria, Universidad del Valle, Cali, Colombia.

Background: Oropharyngeal dysphagia (OD) is a perceived swallowing difficulty from the oral cavity throughout the esophagus. There is limited research on swallowing disorders among never-intubated COVID-19-infected institutionalized older persons. The objective of this study was to determine OD during infection and at follow-up among older patients infected with COVID-19 at the beginning of the pandemic.

Methods: The setting was the Geriatric Hospital and Nursing Home *San Miguel*, in Cali, Colombia, with a population of 252 persons. After excluding 28 infected persons due to incomplete data, the sample for this study included 56 institutionalized, never-intubated older persons with COVID-19 infection between March and August 2020. These patients received primary medical management with interdisciplinary rehabilitation and were never sent to a specialized hospital or the ICU. OD was assessed using the Eating Assessment Tool-10 (EAT-10), a dysphagia screening test developed by Belafsky *et al.* (2008) to identify people at high risk for swallowing disorders. We used a cutoff of 3 for the EAT-10 tool at the diagnosis of COVID-19 within ten days of symptoms onset (time 1) and one year after (time 2= persistent OD).

Results: The study population had a mean age of 84±9.5 (51.8% aged ≥85), and 96% were female. The prevalence of OD was 100% and 54% (times 1 and 2, respectively). Compared to those without persistent OD, those with persistent OD had lower MMSE, MNA-SF tool, Braden scale, grip strength, Lawton index, Barthel index, and SPPB scale (all p<.05). By contrast, they had higher values for the clinical frailty scale and the Downton (all p<.05).

Conclusions: About half of the never-intubated institutionalized older adults with COVID-19 had persistent OD after a year of follow-up. OD should be considered as an essential consequence of Covid-19 in older adults. Early diagnosis and management of OD are necessary after the diagnosis of COVID-19 among older adults.

A181

Patient centred approach to prescribing of atypical antipsychotics in management of expressions in advanced neurocognitive disorders; based on a pilot study.

A. Luthra,¹ R. Gao,² P. Carducci,³ S. Remers,⁴ J. Sue.⁵ 1. Program for Older Adults, Homewood Health Centre, Guelph, ON, Canada; 2. Hamilton Health Sciences, Hamilton, ON, Canada; 3. University of Waterloo Faculty of Science, Waterloo, ON, Canada; 4. Homewood Health Centre, Guelph, ON, Canada; 5. Hamilton General Hospital, Hamilton, ON, Canada.

Objectives: The LuBAIR™ Paradigm is a novel approach to ascribe meaning to behavioral expressions in advanced neurocognitive disorders when the reliability of a clinical assessment is limited. The meaning ascribed to each behavioral category was used to identify those, which are likely to respond to the use of atypical antipsychotics, in their management. De-prescribing was attempted on patients who qualified to enter this retrospective study. De-prescribing was defined as successful if individuals were completely withdrawn from AAP and remained off them for 60 days, without the re-emergence of behaviors.

Methods: The LuBAIR™ Inventory was filled on two occasions. The data collected on the second occasion, in the successful and failed de-prescribed groups, were compared in this retrospective study. MANOVA, Chi-Square paired t-test statistical analyses were used to detect the differences in the behavioral categories between the two cohorts. Cohen d was used to measure effect size.

Results: Patients who did not have Mis-Identification and Goal-Directed Expressions were more likely to successfully de-prescribe: X² (1, N = 40) = 29.119 p < 0.0001 and X² (1, N = 40) = 32.374, p < 0.0001, respectively. Alternatively, the same behavioral categories were more likely to be present in patients who failed de-prescribing: MANOVA and paired t-test (p < 0.0001). Atypical antipsychotics, in their role as an antipsychotic and mood stabilizer, may be used to manage Mis-Identification and Goal-Directed Expressions, respectively.

Conclusion: The use of the LuBAIR™ Inventory and Paradigm may have the potential to predict which behavioral categories associated with advanced NCD may justify the use of AAP in their management. In conjunction with a comprehensive behavioral care plan, there may be justification for the use of AAP in the management of only two behavioral categories: Mis-Identification Expressions (MiE) and Goal-Directed Expressions (GDE), in their role as an antipsychotic and mood stabilizer, respectively. The results of this study may be used to justify de-prescribing of AAP in their use for all the remaining behavioral categories in the LuBAIR™ Inventory.

A182

Optimizing EHR-based identification of frailty among older adults with HIV infection

J. O. Lam,¹ N. Pothamsetty,¹ S. E. Alexeeff,¹ S. Datta,¹ D. D. Satre,^{1,2} M. J. Silverberg.¹ 1. Kaiser Permanente Northern California, Oakland, CA; 2. University of California San Francisco, San Francisco, CA.

Background: Compared with the general population, people with HIV (PWH) are at higher risk of becoming frail. We evaluated whether frailty scores calculated from electronic health record (EHR) data could be used to identify frail PWH in primary care.

Methods: The study included PWH who were aged ≥50-years-old and members of an integrated healthcare system in the U.S. between 7/1/2013 and 12/31/2021. Frailty scores were calculated at study baseline using a frailty index developed for the general patient population and based on diagnoses recorded in the EHR. Participants were categorized by the total number of aging-related health “deficits”, with cutoffs determined based on prior study in the general patient population: non-frail (0-4 deficits), mildly frail (5-8 deficits), moderately frail (9-12 deficits), and severely frail (≥13 deficits). To assess predictive

validity, the association of baseline frailty status with incident emergency department (ED) visits within 1 year was calculated using Cox proportional hazards models. Then, to evaluate whether incorporating data on HIV health status could improve the frailty index, frailty scores were re-calculated to also include an HIV management deficit (defined as having HIV RNA level ≥200 copies/ml, CD4 count <200 cells/μl, prior AIDS, and/or not being on antiretroviral therapy).

Results: The study included 7,977 PWH (90.2% men; mean baseline age=55.9±6.5 years; 59.2% White, 15.6% Black, 14.2% Hispanic, 4.6% Asian race/ethnicity). At baseline, 78.4% were non-frail, 16.8% were mildly frail, 3.5% were moderately frail, and 1.4% were severely frail. Within 1 year, 1,837 (23.0%) PWH had at least 1 ED visit. As shown in the table, PWH with more severe frailty had greater risk of an ED visit (vs. non-frail PWH: hazard ratio [HR]=2.70 (2.43-3.00) for mildly frail, HR=6.31 (5.39-7.38) for moderately frail, HR=14.65 (11.94-17.98) for severely frail). Similar results were observed after addition of an HIV deficit to the frailty index.

Conclusions: Identification of frail PWH using an EHR-based frailty index is feasible. Addition of HIV deficit measures did not appear to improve predictive validity.

Frailty status at baseline	Hazard ratio (95% confidence interval)	
	General frailty index	General frailty index, with HIV deficit included
Non-Frail	Reference	Reference
Mildly Frail	2.70 (2.43-3.00)	2.65 (2.39-2.94)
Moderately Frail	6.31 (5.39-7.38)	5.64 (4.84-6.57)
Severely Frail	14.65 (11.94-17.98)	13.72 (11.39-16.53)

A183 Encore Presentation

Multidimensional frailty instruments can predict acute exacerbations within one year in patients with stable chronic obstructive pulmonary disease: A cross-sectional observational study

L. Wei, P. Li, X. Liu, Y. Wang, Z. Tang, Y. Yang, L. Yu, H. Zhao, K. Li, J. Li, H. Long. Sichuan Academy of Medical Sciences and Sichuan People’s Hospital, Chengdu, China.

Background: Chronic obstructive pulmonary disease (COPD) patients with frailty experience a higher risk of acute exacerbations. However, the frailty instruments that can better predict acute exacerbations remain unclear.

Purpose: To explore the factors influencing frailty and acute exacerbations of COPD, and quantify the ability of multidimensional frailty instruments to predict acute exacerbations within 1 year.

Methods: In this cross-sectional observational study, stable COPD patients were recruited from the outpatient department of Sichuan Provincial People’s Hospital from July 2022 to June 2023. Data were collected using face-to-face interviews with a self-developed frailty questionnaire. Frailty status was assessed using the Frailty Index (FI), frailty questionnaire (FRAIL), and Clinical Frailty Scale (CFS). One-way logistic regression was used to explore the factors influencing frailty and acute exacerbations, and Kappa was used to analyze the consistency among the three frailty models. Multivariate logistic regression was used to establish a prediction model for acute exacerbations, and the accuracy of the three frailty instruments was compared by measuring the area under the receiver operating characteristic curve (AUC).

Results: A total of 120 individuals were included. Frailty incidence estimates using FI, FRAIL, and CFS were 23.3%, 11.7%, and 15.8%, respectively. The three frailty instruments showed consistency (P<0.05). Age, BMI, exercise habits, smoking, maximum grip strength, calf dimension, lung function, CAT, and mMRC are the factors influencing frailty. FI≥0.1 (HR=6.085 [1.230-30.093]) and CFS≥4 (HR=4.009 [1.077-14.923]) were independent risk factors for acute exacerbation of COPD. The CFS was the best predictor of acute exacerbations (AUC=0.764 (0.663-0.866)); sensitivity, 57.9%; specificity, 80.0%). The combination of CFS plus FRAIL was a better predictor of acute exacerbations (AUC=0.792 (0.693-0.891)); sensitivity, 86.3%; specificity, 60.0%).

Conclusion: Multidimensional frailty assessments could improve the identification of COPD patients at high risk of acute exacerbations and facilitate targeted interventions to reduce acute exacerbations in these patients.

A184

The Association of Post-Acute Sequelae of COVID-19 (PASC) and Frailty development in U.S. Veterans

N. M. Resendes,^{1,2} F. Tang,¹ D. Tosi,^{1,2} J. Bradley,² A. Alonso,² I. Hammel.^{1,2} 1. Miami VAHS GRECC, Veterans Health Administration, Washington, DC; 2. Medicine-Geriatric and Palliative Medicine, University of Miami Miller School of Medicine, Miami, FL.

Abstract:

Background: The association of post-acute sequelae of COVID-19 (PASC) diagnosis with the development of frailty has not yet been established. We set out to examine the association of PASC and newly developed frailty in veterans who were robust at the time of COVID-19 infection.

Methods: Retrospective cohort study of U.S. Veterans who were test-positive for SARS-CoV-2 between 10-01-2021 and 04-01-2022 and were robust as categorized by VA Frailty Index (VA-FI) at time of diagnosis. PASC diagnosis was identified by ICD-10 code U09.9. The follow up time was from the time of COVID-19 infection to 11-01-2023. We used nationwide VHA data from the VA COVID-19 Shared Data Resource database. We excluded Veterans who died after contracting COVID-19, and who died within the follow-up. Logistic Regression was performed to see if patients with a PASC diagnosis by ICD-10 code has higher possibility of developing frailty compare to those who did not have a PASC diagnosis, adjusting for age, race, ethnicity, gender, smoking, COVID-19 severity, being an active VA patient in the past 12 months, rurality, substance abuse, alcohol abuse, and baseline frailty score.

Results: 104726 Veterans with COVID-19 infection were included, with 5363(5.1%) diagnosis with PASC. Mean age was 50.4 yrs (SD=15.6) with 84.9% (88943) males, 11415(10.9%) Hispanic, and 20598 (19.7%) black. PASC diagnosis was associated with 114% increase in the odds of new frailty development (adjusted OR=2.14, 95% CI: 1.92-2.37).

Conclusion: We showed that PASC diagnosis was associated with increased risk for frailty among robust veterans. Patients with PASC will benefit from evaluation and early intervention for frailty.

A185

What Matters most to older adults living with dementia and their caregivers? An analysis of an African-American population seen in an outpatient geriatric clinic

G. Cohen,¹ O. free,² M. Perkins,¹ K. Hepburn.¹ 1. geriatrics and gerontology, Emory University, Atlanta, GA; 2. Emory University Woodruff Health Sciences Center, Atlanta, GA.

Background: The traditional approach to care for patients with dementia and comorbidities leads to fragmented care, contributes to polypharmacy, and often is not aligned with patients' preferences. Goal-directed care has been shown to increase patient and caregiver satisfaction, improve quality of life, and reduce costs

Methods: cross-sectional, mixed-methods study aimed to describe areas of fit and disconnect between clinic-based care plans and goals and priorities of older adults living with dementia and comorbidity and their caregivers seen at an outpatient Geriatric Clinic. Each visit involved a standard geriatric assessment, a semi-structured, qualitative patient care preference interview using Invivo analysis to bring key themes and a pre-existing care plan review. A final revised care plan was developed based on the assessment and goals and preferences of the dyad.

Results: 20 patients with dementia and at least one comorbidity, 89% female, 100% African American; 58% had a diagnosis of

Alzheimer's disease. Staging: 7 cases of mild dementia, 9 of moderate dementia, 4 of severe dementia. Only 45% of patients were able to articulate goals or priorities. Most common goals for patients were: improve memory, maintain their current level of independence, eat more and increase weight. Most common goals for caregivers were: get more help at home with home health services referral, improve functional independence, decrease caregiver burden and consolidate care with PCP. The top actions being taken to align care were: ordering home health aide (n = 15), interventions to decrease caregiver burden (n = 12) and management of comorbidities in the context of dementia (n = 9).

Nearly all patients had two or more actions being taken to align care after the visit. All caregivers (100%) found the physician-led discussion of goals and preferences helpful in managing the care of their loved one.

Discussion: In this population, identifying goals of care based on patients' priorities and preferences is a basic principle to provide a more rational, holistic, and integrated dementia care plan. There is a need to work towards patient-centered, personalized dementia care model that takes into consideration what matters most and incorporates those goals into the care plan.

A186

Optimized Outpatient Access Strategy For Chronic Patients In A Private Healthcare Insurance Company

C. Lopes, F. Padovani, R. Cunha, R. de Figueiredo, M. C. Felipe. Prevent Senior Private Operadora de Saude Ltda, Sao Paulo, Brazil.

BACKGROUND: The world faces a major social and demographic challenge as the population ages. Elderly people may have multiple chronic conditions, increasing the need for medical care. Health systems need to adapt to this new consumption pattern, optimizing the distribution of resources while increasing the quality of care. Accessibility and a person-centered approach can help these patients have a better quality of life without increasing the costs of private or public operators. Strategies based on operational research can help healthcare managers in their decision-making.

METHODS: Patients with multiple chronic conditions from a healthcare professional were analyzed. The data was separated: (1) base of eligible patients, extracted from the Operator's original data structure; (2) Census Sector Base of the city of São Paulo, defined by the Brazilian Institute of Geography and Statistics (IBGE) on its website; and (3) spreadsheet with the locations (latitude and longitude) of the 11 (eleven) outpatient units available for allocation. The first two databases mentioned were crossed to confirm the correspondence between latitudes and longitudes with the address of each patient in the original database. At this time, 1,323 of the 32,559 patients were removed from the model due to discrepancies in the information. The remaining 31,236 patients (96.18%) are concentrated in 10,767 census tracts. Subsequently, patients were grouped by neighborhood and based on their individual complexity and the forecast of necessary appointments per year, determining the demand that each neighborhood has.

RESULTS: RESULTS: The total number of neighborhoods resulting from this data preparation, in a grouped form, was 2,328. The solution found by the optimization model indicated 4 (four) outpatient units adequately distributed throughout the city of São Paulo, allowing the decentralization of care for chronic patients and a significant reduction in the distances traveled by this priority population, from approximately 24 km to 8.1 km traveled.

CONCLUSIONS: Proximity and easy access to health services are essential to guarantee continuity of care and improve patient engagement with prescribed treatments, especially in elderly people with multiple chronic conditions. Furthermore, this type of solution can improve the distribution of resources in the healthcare sector.

A187

Validating the HERO Care Veteran survey to predict acute-care utilization

R. Munoz,³ Z. Bursac,² A. Arrieta,² J. Adler,⁵ S. Dang,^{1,4} I. GRECC, Miami VA Healthcare System, Miami, FL; 2. Robert Stempel College of Public Health & Social Work, FIU, Miami, FL; 3. SFVAFRE, Miami, FL; 4. VA Elizabeth Dole Center of Excellence in Veteran and Caregiver Research (EDCoE), San Antonio, TX; 5. Steven J Green School of International & Public Affairs, FIU, Miami, FL.

Background: The U.S. Department of Veteran Affairs HERO CARE survey is a multi-site primary data collection initiative designed to identify and measure the unmet needs of Veterans and their caregivers. However, there is a need to assess its validity for specific outcomes.

Methods: The survey had over 200 items covering several health domains including medical, psychological, functional, and socio-economic. We performed factor analyses to explore dimensionality, identify model fit, and assess validity of the HERO Care survey. We analyzed 8 acute-care utilization (ACU) outcomes through electronic medical records of inpatient hospital admissions and emergency room visits, 1-year pre- and post-hospital stay, 2-year total and any ACU (binary). Poisson and logistic regressions were used to regress all 8 count and binary-based outcomes.

Results: Among a sample of 8,056 Veterans, the predominant demographic profile was male (92.6%), heterosexual (92.2%), married (54%), retired (69.3%), had some college/undergraduate degree (48.4%), with little to no health literacy (53.1%). We found a that a first-order 17-factor model structure had partially adequate fit (comparative fit index = 0.900, Tucker-Lewis index=0.892, root mean square error approximation=0.023, standardized root mean square residual = 0.043). The factors were transportation, homebound status, social networks, mental duress, medication and financial insecurity, (instrumental) activities of daily living, quality of life, pain exposure, mobility difficulties, health management, internet-based telecommunication, substance abuse, receiving home care, emotional health, and isolation related to COVID-19. Substance abuse was related to all 8 ACU outcomes, internet-based telecommunication to 7, and homebound status and health management to 5.

Conclusion: Several factors within the HERO CARE survey were associated with ACU outcomes, suggesting it is a valid measure of important health domains and social determinants. Resources to help treat patients' substance abuse, homebound health status, and improve their technological proficiency and health management may affect their ACU.

A188 Encore Presentation

Barriers and facilitators to integrating deprescribing recommendations into clinical practice guidelines: a qualitative study

E. Reeve,^{1,2} D. Mill,² S. Liao,¹ S. Leung,¹ D. Gnjidic,³ D. Pollock,⁴ N. Ailabouni,^{5,2} W. Thompson,⁶ F. Moriarty,⁷ D. Maher,² B. Farrell.⁸
 1. Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, Clayton, VIC, Australia; 2. Clinical and Health Sciences, University of South Australia, Adelaide, SA, Australia; 3. Faculty of Medicine and Health, University of Sydney, Sydney, NSW, Australia; 4. Health Evidence Synthesis Recommendations and Impact, The University of Adelaide, Adelaide, SA, Australia; 5. Faculty of Health and Behavioural Sciences, The University of Queensland, Saint Lucia, QLD, Australia; 6. Faculty of Medicine, The University of British Columbia, Vancouver, BC, Canada; 7. Royal College of Surgeons in Ireland, Dublin, Ireland; 8. Bruyère Research Institute, Ottawa, ON, Canada.

Background: A reported barrier to deprescribing in practice is a lack of recommendations on when and how to deprescribe in clinical practice guidelines. Therefore, the objective of this study was to explore the barriers and facilitators to inclusion of evidence-based deprescribing recommendations in clinical practice treatment guidelines.

Methods: Qualitative semi structured interviews were conducted with guideline developers (including chairs, methodologists, clinicians and consumer representatives) and key stakeholders from organizations involved in informing guideline development. Interviews were audiotaped and transcribed and then conventional content analysis was conducted.

Results: 17 guideline developers (including 7 people who had been involved in development of deprescribing focused guidelines) and 8 stakeholders that inform guideline development were interviewed. Participants were from North America, Australasia and Europe and ranged in experience from being involved with one guideline to more than 20. Barriers and facilitators identified related to whether deprescribing was seen to align with the goal of guidelines, awareness of deprescribing, availability of evidence to inform the recommendations, internal and external influences on the scope of the guideline, logistical considerations, implementation considerations, negative consequences and complementary movements.

Discussion: While there are facilitators to inclusion of deprescribing recommendations, a champion within the guideline development team or recommendations from respected organizations is likely needed to ensure that it is included within the guideline scope. Pharmacists and geriatricians should be a part of guideline development teams to act as champions for deprescribing.

A189

Predicting Mortality and Costs for Dementia Patients in Emergency Departments: Timing and Location Matter

J. Bowman,¹ C. Ritchie,¹ K. Ouchi,¹ J. Tulsy,¹ J. Teno.² 1. Harvard Medical School, Boston, MA; 2. Brown University School of Public Health, Providence, RI.

BACKGROUND: People with Alzheimer's Disease and Related Dementias (ADRD) who visit emergency departments (ED) have high rates of hospitalization and mortality. Identifying those most at risk could help improve quality of care and reduce costs.

METHODS: We used a national 20% random sample (n=250,343) of ADRD Traditional Medicare beneficiaries age >= 66 years who had an ED visit. For their first ED encounter in 2018, we identified one year mortality rate and high cost (top 10% of Part A Medicare costs including hospital, home health, skilled nursing home, and hospice). A multivariate regression model (clustering at the hospital referral region and including age, gender, comorbidities, prior feeding tube insertion, number and timing of recent hospitalizations, and location prior to ED visit) examined how timing of prior hospitalizations was associated with one year mortality and high costs.

RESULTS: Recency of prior hospitalizations predicted high mortality or costs, even after adjustment for location of care prior to ED visit. Similar patterns were seen in models stratified by prior location and discharge status. With the exception of nursing home ED patients discharged back to nursing homes, all C statistics for predicting mortality and high costs ranged between 0.62 – 0.72.

CONCLUSION: For persons with ADRD presenting to an ED, timing of prior hospitalizations as well as their location before and after disposition from the ED are important in predicting one year mortality and high costs. Future research should explore adding clinician assessment and selecting clinical characteristics to enhance model accuracy.

ADRD Patients Presenting to EDs	1 Year Mortality	Percent in Top Decile of Costs	C Statistic
Entire Cohort	25.4%	10.0%	---
Outcomes By Timing of Prior Hospitalization			
None in Prior Year	23.1% reference	5.7% reference	0.67 for mortality
1 Month Prior to ED (% AOR 95% CI)	40.3% (1.6, 1.51 - 1.67)	32.6% (4.9, 4.59 - 5.17)	0.71 for high cost
2 Months Prior to ED (% AOR 95% CI)	33.5% (1.3, 1.22 - 1.37)	25.4% (3.5, 3.30 - 3.72)	
3 Months Prior to ED (% AOR 95% CI)	30.9% (1.2, 1.12 - 1.25)	22.5% (3.1, 2.91 - 3.29)	
4 Months Prior to ED (% AOR 95% CI)	30.0% (1.2, 1.11 - 1.24)	19.8% (2.8, 2.59 - 2.62)	
5 Months Prior to ED (% AOR 95% CI)	28.2% (1.1, 1.03 - 1.16)	17.0% (2.4, 2.24 - 2.61)	
6-12 Months Prior to ED (% AOR 95% CI)	26.4% (1.1, 1.06 - 1.12)	12.1% (1.9, 1.84 - 2.00)	
Outcomes By Location of Patients Before and After ED Encounter			
From Community, Discharged to Community	18.4%	5.8%	0.66 for mortality 0.72 for high cost
From Community, Admitted to Hospital	31.4%	17.4%	0.63 for mortality 0.67 for high cost
From Nursing Home, Discharged to Nursing Home	34.5%	6.7%	0.62 for mortality 0.81 for high cost
From Nursing Home, Admitted to Hospital	47.0%	19.1%	0.62 for mortality 0.72 for high cost

A190
Focus Groups of Informal Caregivers of Persons with Dementia to Develop a Virtual Training Program

S. Tam, Geriatrics, University of California Irvine, Irvine, CA.

E. Nguyen, MPH, S. Tam, MD, S. Sirivong, S. O' Leary, K. Maahs, J. Victor, J. Lee, PhD, RN, FGSA, FAAN, University of California Irvine, Irvine, CA

Background: With an increasing number of persons with dementia, the need for caregivers will significantly rise. Many of these new caregivers are informal caregivers including spouses, offspring, siblings, and friends. This study aims to identify the best learning environment and curriculum structure for the development of an informal dementia caregiver training program. **Methods:** Focus groups using semi-structured questions with informal caregivers were conducted to develop a virtual training program. Participants were recruited through partnerships with dementia caregiving organizations. Questions included preferences for learning methods and training content, prior training experiences, caregiving experience, and brief demographic information including relationship with a person with dementia. **Results:** Two focus groups were conducted including 11 participants; 27.3% male, 63.6% spousal caregiver, 36.4% adult child caregiver, age range 47-75, and 36.4% Asian or Latinx. Length of being a primary caregiver varied with a range of less than 6 months to more than 10 years; 45.5% were primary caregivers for 3 to 5 years. The majority of caregivers received additional help with caregiving, either through a family member or caregiver service. Most participants preferred a mixture of asynchronous and synchronous learning with a focus on having a live instructor. Some spousal caregivers expressed a preference for in-person instructor-led classes. A few Caucasian participants expressed they preferred a formal instructor-led training program while Asian and Latinx participants preferred to learn using a self-guided training program that did not involve a live instructor. Some participants had previously attended a formal caregiver training program (e.g., the Savvy Caregiver Training Program). Participants reported an increase in confidence after attending the training; one area of improvement was in communication with the person with dementia. Some participants expressed the importance of receiving education on the power of attorney rights for caregivers. **Conclusion:** Findings suggested informal caregivers' preferred learning method was a live instructor-led virtual training program. The development of tailored caregiver training programs with culturally appropriate content should be considered.

A191
Baseline Characteristics of Older Veterans with High Complexity evaluated in an Interdisciplinary Frailty Clinic

W. M. Valencia,² C. McCarley,¹ Z. Rahaman,¹ M. Desir,¹ S. Garcia-Davis,¹ S. Dang,^{1,3} 1. GRECC, Miami VA Healthcare System, Miami, FL; 2. Cleveland Clinic, Cleveland, OH; 3. VA Elizabeth Dole Center of Excellence in Veteran and Caregiver Research, San Antonio, TX.

Background: Frailty Syndrome is no longer just a geriatrics issue. Many specialties have incorporated different evaluation tools to incorporate frailty as a variable in the research and sometimes clinical care, albeit it may not incorporate actual geriatrics care.

Methods: We implemented an Interdisciplinary Clinic to evaluate and treat frailty in patients identified as High-Need High-Risk through an electronic tool status report, on a quarterly basis. We completed in-person Rockwood Frailty Index, Functional, Cognitive, Sarcopenia, and Nutritional testing, as well as obtained determinants for social needs. We present the baseline characteristics and findings of the initial assessment.

Results: We evaluated 205 Veterans, 99% male, age 75.2±6.5, white 55%, black 42%, other 3% (white and black Hispanic 17%), Marital status: married 114 (56%), divorced 52 (25%), widowed 12 (6%), never married 14 (7%), other 13 (6%), service in Vietnam 166 (81%). Their average Frailty Index was 0.33±0.15, divided as follows: 2.51% fit, 29.15% mildly frail, 30.65% moderately frail, and 37.69% severely frail. The average Body Mass Index was 28.5±5.6, with 31.75% overweight and 42.33% obese. shoulder dynamometer was 10.7±5.3, handgrip strength was 26.8±12.8. The average 8-foot-up-and-go was 12.9±6 seconds, the 6-min walk distance was 351.5 meters, average gait speed was 0.71±0.21 m/s. Cognitively, their average MOCA score was 21.5±4.8. Nutritional problems included gastrointestinal (19%), chewing (12%), and dysphagia (6%).

Conclusions: We observed a high prevalence of overweight/obesity, cognitive dysfunction, and nutritional problems [SD1] in the frailty clinic. Future frailty studies will benefit from incorporating evaluation of body composition, and studying the connection of frailty with sarcopenic obesity and cognitive dysfunction.

A192
Development and Validation of a Protocol for the Prevention and Management of Constipation among High-risk Patients during Hospital Admission

B. A. Alwazan,¹ M. Salama,¹ Y. Alawadh,¹ M. Kareemi,¹ A. I. Awad,² 1. Medical, Mubarak Al-Kabeer Hospital, Safat, Kuwait; 2. College of Pharmacy, Kuwait University, Kuwait, Kuwait.

Background: Constipation is prevalent among patients admitted to hospitals with acute illness and can complicate acute admission with the development of delirium, urinary retention, pain, and discomfort, and increased healthcare costs. Hence, this study was designed to develop and validate a bowel protocol aimed at the prevention and management of constipation in the medical wards for high-risk patients, including patients aged 65 years, frail patients, patients taking opioids and/or anticholinergics, and patients on fluid restriction.

Methods: The criteria included in the protocol were quality standards extracted from international guidelines. Face validity was demonstrated through consultation with a geriatrician, gastroenterologist, internist, general surgeon, and dietitian. Content validity was established through an electronic survey of an expert group in the management of constipation comprising 15 physicians working in Kuwait who were asked to indicate their level of agreement with each criterion on a 5-point Likert scale (strongly agree/agree/disagree/strongly disagree/neutral). Two quantitative approaches were used to determine content validity: (i) Content Validity Ratio (CVR) and the average of CVR values; and (ii) Content validity index at item level (I-CVI) and scale-level of the tool (S-CVI/Ave) with the average approach. In the first approach, based on Lawshe table, with a total of 15 experts, the minimum CVR critical value for each criterion is 0.6 at $\alpha = 0.05$. So, if the criterion obtained < 0.6 , it needs to be modified or deleted. In the second approach, the recommended judgment on each criterion is as follows: If the I-CVI $> 79\%$, the item is appropriate. If 70%-79%, it requires revision. If $< 70\%$, it should be deleted.

Results: Face validity resulted in a total of 24 criteria with 7 steps for the prevention and management of constipation. Regarding content validity, 13 criteria had CVR values of 1.0 and I-CVIs of 100%, 9 had CVR values of 0.87 and I-CVIs of 93%, and 2 had CVR

values of 0.6 and I-CVIs of 80%. None of the criteria was deleted or needed revision. This resulted in 24 criteria with an average CVR of 0.92 and S-CVI/Ave 95.7%.

Conclusion: The validated protocol can be utilized for optimizing the prevention and management of constipation in medical wards.

A193

Sustainability in Eye Care: Factors Influencing Solid Waste Generation and Opportunities for Co-Benefits

B. Sherry,¹ G. Elgezabal,¹ Y. Patil,² S. Shiwdin,¹ E. Pak,⁴ C. Prescott,¹ J. Schuman,³ C. Thiel.¹ *1. NYU Langone Health, New York, NY; 2. Touro University of Nevada College of Osteopathic Medicine, Henderson, NV; 3. Wills Eye Hospital, Philadelphia, PA; 4. Stony Brook University, Stony Brook, NY.*

Background: The growing concern over climate change has become a prominent topic in healthcare, particularly within eye care. Climate change has led to an increased prevalence of ocular traumas, eye pathologies, and various diseases due to increased exposures to heat, UV radiation, and pollutants. Given the healthcare industry's contribution to a large amount of greenhouse gases every year, our focus is on the evaluation of the sustainability of cataract surgeries, a routine procedure commonly performed on geriatric patients.

Methods: In this study, our team obtained a comprehensive set of data spanning 2018-2022 of cataract surgeries. This data set encompassed details on costs of individual items, patient billings, surgeons, dates, times, and surgical venues in NYC. Data pertaining to concurrent procedures alongside cataract surgeries have been excluded from our analysis. Furthermore, our team manually collected data on the waste produced over 44 different cataract surgeries in a NYC outpatient facility performed by different surgeons over a 2-month period.

Results: Our findings unveiled significant disparities in waste production (3.52kg-6.24kg) between different surgeons and surgical locations. These findings also highlighted statistically significant observations that indicate a correlation between extended operating room time and increased waste production. Similarly, reduced expenditure on supplies is associated with a heightened waste generation.

Conclusions: These results indicate multiple factors related to variations in waste production, underscoring the potential for a multitude of sustainability measures that we can implement into cataract surgeries. These measures could include the reuse of certain supplies, modifying the packaging of certain materials, and educating surgeons and administrators. These initiatives have the potential to be advantageous for the future of our environment, patients, hospitals, and insurers.

A194 Encore Presentation

The influence of rurality and frailty on adverse health outcomes in older adults

H. B. Spangler,¹ E. Mitchell,² D. H. Lynch,¹ P. Haaland,² J. A. Batsis.¹ *1. Geriatrics, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Biostatistics, The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Frailty is a syndrome representing a decline in physical function and an increased vulnerability to stressors. Older adults in rural areas may be at increased risk for frailty and adverse outcomes due to worse overall health. Our aim was to identify how rural/urban residence can influence frailty status.

Methods: We used National Health and Aging Trend Study (2011-2020) data, a cohort of Medicare beneficiaries. Participants were categorized as robust, pre-frail, and frail (Fried's frailty phenotype). Rural residence included counties outside of a metropolitan statistical area (Office of Management and Budget). Participants were excluded if frailty components or geographical status were incomplete. We used logistic regression analyses for the relationship between adverse outcomes (death, nursing home placement over 2011-2020), rural/urban, and frailty status.

Results: Of 7,393 participants (57.2% female), median age range was 75-80 years and 19.4% were rural residents. Rates of robust, pre-frailty, and frailty were 41.4%, 48.4%, and 10.2%, respectively. There was no difference of frailty status by rural status nor was there a frailty x rural interaction. Older adults with pre-frailty (OR=1.18; 1.05-1.34) and frailty (OR=1.01; 0.82-1.24) had higher risk of residing in rural than urban areas. Rural residence (OR=1.75; 1.33-2.24), pre-frailty (OR=1.87; 1.54-2.28) and frailty (OR=3.62; 2.79-4.71) had higher risk of adverse outcomes.

Conclusion: Participants with pre-frailty had higher odds of living in a rural area. Similarly, participants in rural areas had higher odds of adverse outcomes. These findings may highlight health care disparities in rural areas and opportunities for system- and individual-level interventions to prevent frailty development.

A195

Rural historically minoritized caregivers of persons living with dementia participating in a RCT: area deprivation profile and outreach characteristics

J. Santoyo-Olsson, R. Sudore, V. Yank. *University of California San Francisco, San Francisco, CA.*

Background: Innovative recruitment approaches are needed to identify caregivers of persons living with dementia from historically minoritized groups. The Area Deprivation Index (ADI) provides a pragmatic tool for identifying socioeconomically deprived individuals. We applied the ADI to caregivers enrolled in a national RCT, to determine if recruitment efforts reached caregivers from historically minoritized groups living in disadvantaged rural areas.

Methods: We performed a subgroup analysis of baseline data from a national RCT of an online skills-building workshop among rural caregivers. The subgroup (n=129) included caregivers who self-identified as being from historically minoritized racial/ethnic groups. The ADI is measured at the state-level using US Census-tract indicators (scores range: 1-10; higher=more disadvantage). ADI scores were applied based on ZIP+4 codes. State was used to classify U.S. Census region of residence. Caregivers were asked how they heard about the trial. On a weekly basis localized outreach efforts were reviewed and repeated if successful.

Results: Of the 129 rural caregivers identified, 39 were ineligible (e.g., no email), 48 refused, and 42 enrolled. Among enrollees, 40% self-identified as Black, 40% as Latino, and 20% as Native American. Caregivers were aged 55.4 years±12.9; 93% were women; 93% had ≥some college education. Most provided care to a parent (57%) or spouse (19%) and 76% lived with the PLWD. Caregivers represented all US Census regions: 38% lived in the South, 36% in the West, 17% in the Northeast, and 10% in the Midwest. 64% of caregivers were from the most disadvantaged areas (ADI≥7, highest quintile). Caregivers in the most disadvantaged areas were from states not traditionally thought of as rural (e.g., California, Massachusetts). The most effective outreach approaches were emails from rural-serving community aging organizations (40%), small local newspapers (17%), tribal focused Facebook page or newspapers (14%), and word of mouth from trusted person (12%).

Conclusions: Applying the ADI, we identified caregivers from historically minoritized groups living in disadvantaged areas of states not traditionally considered rural. The ADI may identify target areas for successful local recruitment of caregivers from historically marginalized populations.

A196

Identifying areas of improvement in the design of care plans for complex older adults.

M. G. Hedmann, M. L. Russell, S. Levine, E. Franco Garcia, C. Pu. *Geriatric Medicine, Massachusetts General Hospital, Boston, MA.*

Background

Care planning is an important tool that optimizes the care of complex older adults. The 2015 proposed rule for Meaningful Use Stage 3, which governs the requirements for electronic medical records (EMR), supports the broad use of care plans. However, the uptake of care planning has been slow, and care plans are often underutilized, outdated, and/or ineffective.

Methods

The current study utilized qualitative interviewing of state officials and clinicians to identify reasons for suboptimal use and efficacy of care plans and recommendations for improvement of current practices. Interviews were transcribed and key themes were extracted through open coding.

Results

The study included 8 participants: 3 state Medicaid officials, 2 clinic managers of an academic geriatric practice, 1 high-level aging services official, 1 community geriatrician with extensive policy experience, and 1 health plan program manager. Primary themes identified were 1) trust, 2) person-centered care, and 3) visual appeal.

Trust: Many complex older adults harbor distrust of the medical establishment. They may have trauma history that is related to their past medical care. This makes it difficult for care teams to build therapeutic alliances.

Person centered care: Many care plans focus on medications, treatments, and support services and do not sufficiently focus on patient goals and priorities. Patient goals are often incongruent with or not clearly related to goals that are delineated in their care plans.

Visual appeal: Care plans often consist of long, dense written documents that do not encourage regular use and updates. Domain-based, color-coded, visuospatial models may be more appealing and easier to navigate.

This data was used to develop the S.T.A.R. model, a visuospatial representation of multicomplexity featuring 12 color-coded domains that are included within the 5Ms framework. The colors correspond to four stages of shared care plan goals: Sow, Tend, Advance, and Reap. This model has the potential to be computerized for EMR integration.

Conclusion

Qualitative feedback is key to augmenting policies that govern care planning for complex older adults. Visuospatial, color-coded, domain-based templates such as the S.T.A.R. model may increase uptake of care planning into interdisciplinary geriatric care more broadly. Future studies may pilot the S.T.A.R. model and adapt it iteratively for various older adult populations.

A197 Encore Presentation

Having a Say in Patient Care: Factors Associated with High and Low Voice Among Home Health Aides

G. Gusoff,^{1,2} J. Bryan Ringel,³ M. Bensson-Ravunniarath,⁴ C. Espinosa,³ M. Sterling.³ *1. Department of Family Medicine, University of California Los Angeles, Los Angeles, CA; 2. National Clinician Scholars Program, University of California Los Angeles, Los Angeles, CA; 3. Department of Medicine, Weill Cornell Medicine, New York, NY; 4. Department of Medicine, Massachusetts General Hospital, Boston, MA.*

Background: Home health aides (HHAs) spend more time with patients than any other member of the care team. However, HHAs' level of "voice" – input in care planning and discussions – varies and their insights are often ignored. Higher voice among health care workers is associated with greater care quality, job satisfaction, and

cost-effectiveness, but little is known about what factors promote or inhibit voice among HHAs. This study aims to identify factors associated with low and high HHA voice.

Methods: We conducted a secondary data analysis of a cross-sectional survey assessing the experiences of HHAs caring for adults with heart failure. The survey was conducted in New York City from June 2020 to July 2021 in partnership with the 1199SEIU Training and Employment Funds. The survey measured various HHA and agency characteristics and measured HHA voice using a validated, five-item instrument. Based on their voice scores, HHAs were sorted into tertiles: low voice, medium voice, and high voice. We used multinomial logistic regression to assess which characteristics were associated with low or high HHA voice.

Results: 261 eligible HHAs completed the voice survey instrument, of whom 97% were women, 44% were Hispanic, 30% were non-Hispanic Black, and 10% were non-Hispanic white. Private agency ownership was more common among low voice HHAs and worker cooperative ownership was more common among high voice HHAs. Factors associated with low voice included Spanish as a primary language (OR 3.71, $p = 0.001$), knowing which doctor to call (OR 0.19, $p < 0.001$), and depersonalization-related burnout (OR 1.14, $p = 0.036$). Factors associated with high voice included Spanish as a primary language (OR 2.61, $p = 0.041$) and job satisfaction (OR 1.22, $p = 0.001$).

Conclusions: Improving team communication and reducing barriers for HHAs with a non-English primary language may represent important interventions for improving HHA voice and ultimately increasing HHA job satisfaction and reducing burnout. Additional research is needed to evaluate the efficacy of specific interventions as well as the impacts of home care agency ownership type on HHA voice.

A198

The Area Neighborhood Deprivation Index is associated with stress among rural caregivers of persons living with dementia from historically minoritized groups

J. Santoyo-Olsson, R. Sudore, V. Yank. *University of California San Francisco, San Francisco, CA.*

Background: Living in a disadvantaged neighborhood has been linked to poor healthcare outcomes. Although a strong health predictor, the Area Deprivation Index (ADI) has not been regularly incorporated into caregiver research. The purpose of this study is to explore the association of ADI with stress and depressive symptoms among rural informal caregivers of persons living with dementia (PLWD) from historically minoritized groups. We hypothesize that caregivers of PLWD living in more disadvantaged rural areas will report greater stress and depressive symptoms than caregivers of PLWD living in less disadvantaged rural areas.

Methods: We performed a subgroup analysis of baseline data from a national RCT of an online skills-building workshop among rural caregivers of PLWD. The subgroup ($n=42$) included caregivers of PLWD who self-identified as being from historically minoritized racial/ethnic groups. The ADI uses state-level US Census-tract indicators (e.g., income, employment, housing quality) and ranges from 1–10; higher=more disadvantage. The ADI score was retrospectively applied based on caregiver ZIP+4 codes. We assessed associations between ADI and stress (validated single item visual numeric stress scale; response range 1-10; higher=more stress) and depressive symptoms (Patient Health Questionnaire (PHQ-8); higher=more depressive symptoms) using linear regression.

Results: Among 42 participants, 40% self-identified as Black, 40% as Latino, and 20% as Native American. Participants were aged 55.4 years \pm 12.9; 93% were women; and 93% had some college education or higher. Most provided care to a parent (57%) or spouse (19%) and 76% lived with the PLWD. Median ADI score was 8.0 out of 10 with 64% of caregivers from the most disadvantaged areas ($ADI \geq 7$,

highest quintile). Caregivers living in more disadvantaged areas reported higher stress scores (mean 7.0; SD=1.2) than caregivers living in less disadvantaged areas (mean 5.7; SD=2.3) ($p=0.0102$). ADI was not associated with demographic characteristics or depressive symptoms.

Conclusions: Living in more disadvantaged areas was associated with greater stress among caregivers. Historically minoritized caregivers living in rural areas need increased support and resources to address their stress.

A199

A1C Levels and Risk of Developing Severe COVID

M. Quarella,² M. Singh,¹ Z. Buchalski,³ V. Sirpal,³ P. Ghai,³ M. Gold,⁴ R. Kaler,³ J. Abi Chebl,⁵ O. Radu,³ A. Nanda,³ Y. Abul,³ S. Gravenstein,³ R. Tyagi,³ T. A. Bayer.³ *1. Brown University, Providence, RI; 2. Geriatric and Palliative Medicine, Brown University, Providence, RI; 3. Division of Geriatric and Palliative Care Medicine, Brown University, Providence, RI; 4. Geriatrics and Palliative Care, Brown University, Providence, RI; 5. Geriatrics, Roger Williams Medical Center, Providence, RI.*

Introduction

Elevated glycosylated hemoglobin (A1c) is associated with severe COVID-19 in a mostly community-dwelling sample of adults, but we know very little about the association in adults residing in long-term care settings. The long-term care population may be more susceptible to adverse effects of hypoglycemia, given their higher rates of frailty and other chronic conditions. We undertook this study to explore the association of lower A1c levels with COVID-19 severity in Veteran Affairs (VA) Community Living Center (CLC) residents.

Methods

This retrospective cohort study included CLC residents testing positive for SARS-CoV-2 from Dec 2022 - March 2023. Based on the most recent A1c value before the first positive SARS-CoV-2 test, we divided A1c exposure into groups with values less or more than 6.5. Our outcome was the severity of infection, defined as hospitalization or death within 30 days after the positive test. We estimated the relative risk (RR) of severe SARS-CoV-2 associated with A1c 6.5 or greater.

Results

Of 4,606 CLC residents studied, residents with $A1c > 6.5$, 47.53% ($n=780$) of subjects developed severe COVID compared to 45.70% ($n=1355$) who had $A1c < 6.5$, (p -value = 0.241). The unadjusted risk ratio was 1.04 with a 95% confidence interval (CI), lower limit CI, 0.98 upper limit CI, 1.11.

Conclusion

We did not find an association between high A1c and increased risk for severe COVID infection in Veterans living in VA administered nursing homes than residents with A1c under 6.5. This contrasts with data from a general adult population where high A1c was associated with severe COVID-19. Age, or factors associated with age such as frailty and other chronic conditions may modify the effect of hyperglycemia on outcomes of COVID-19. Alternatively, hypoglycemia may be more detrimental in this population and may confer a comparable degree of risk. We plan to compare risk of severe COVID-19 in CLC residents with very high and very low A1c to intermediate A1c, and to examine effect measure modification by frailty.

A200

Patient Preferences for Telemedicine Video Visit Backgrounds and Elements: A Cross-Sectional Survey

N. Houchens,^{1,2} S. Saint,^{1,2} L. Kuhn,¹ D. Ratz,¹ J. Engle,¹ J. Meddings.^{1,2} *1. Medicine, Veterans Affairs Ann Arbor Healthcare System, Ann Arbor, MI; 2. Internal Medicine, University of Michigan, Ann Arbor, MI.*

Background: Given the increased use of telemedicine, it is important to understand patient preferences for and comfort with telemedicine options and features. Our objective was to explore patient

preferences for various types of video visit background environments and their effects on the patient-physician relationship.

Methods: We performed a cross-sectional survey of a random sample of adult patients between February 2022 and October 2022 in 2 large healthcare systems in Michigan, who completed an in-person or virtual outpatient visit within the prior year. Surveys included photographs of either a male or female model physician in different environments. The primary outcome – preference for background environment – was calculated as the composite ratings across six domains (how knowledgeable, trustworthy, caring, approachable, and professional the physician appeared, and how comfortable the physician made the respondent feel). Secondary outcomes included preferences for, comfort with, and influence of telemedicine as well as variation in preferences by respondent characteristics and institution.

Results: A total of 1,213 patients returned surveys (response rates: 30% for University paper survey, 27% for Veteran paper survey, unknown for University electronic survey); 54.1% were 65 years or older (45% University, 79% Veterans); 53.3% were female. Respondents rated the physician office with visible diplomas as the most preferred background environment for a video visit (mean composite score 7.8). This environment was also rated highest across 5 of 6 domains and highest for visits with established primary care (30.2%), new primary care (37.7%), established specialty (33.0%), and new specialty physicians (38.1%). The majority of respondents (77.4%) preferred in-person visits. Differences in preferences by respondent institution and barriers to telemedicine use were identified. Lack of internet access, equipment, comfort, and technological ability were disproportionately found among Veteran patients.

Conclusions: Patients have specific preferences regarding the background environment used during telemedicine video visits. Healthcare systems should prioritize performing telemedicine visits in an office environment with visible diplomas, as this most resonates with patients.

A201

Racial Differences in Factors Associated with Patient-Reported Pain

R. Rhodes,¹ A. Gangavati,¹ A. Platt,² M. Olsen,² K. S. Johnson.³ *1. The University of Texas Southwestern Medical Center, Dallas, TX; 2. Duke University, Durham, NC; 3. Duke University School of Medicine, Durham, NC.*

Background: Racial disparities in pain management are well-documented. We examined variation by race in factors associated with patient-reported pain.

Methods: Baseline data from EQUAL ACP, a multisite trial to improve advance care planning among Black and White adults \geq age 65, with serious illness, were analyzed. We used chi-squared tests to examine differences by race and logistic regression to identify independent predictors of pain categorized as \geq vs $<$ sample median (scale 0 to 10) for Black and White subgroups. Adjustment variables included provider communication scale (best possible score vs others, described as “poorer”), days in bed in the last 3 months (\geq vs $<$ half time), self-rated health (poor/fair vs good/excellent), and gender.

Results: Of 797 patients, 53.8% were Black, and mean age was 74.9. Black patients were more likely to be female (70.5% vs. 56.7%, $p<0.001$) and report poor/fair health (47.2% vs 33.2%, $p<0.001$). Similar proportions of Black and White patients reported spending \geq half time in bed (45.9% vs. 41.6%, $p=0.36$) and poorer provider communication (46.7% vs. 48.3%, $p=0.64$). Median pain score of the sample was 4/10. Black patients (62% vs. 49.6%, $p=0.0004$), females (62.9% vs. 44.6%, $p<0.0001$), those who reported poor/fair health (76.2% vs. 42.5%, $p<0.0001$), spent \geq half time in bed (69.8% vs. 45.8%, $p<0.0001$), or poorer provider communication (60.7% vs. 39.3%, $p=0.01$) were more likely to have pain scores \geq sample median. There were no differences by age (\leq vs $>$ 75). In logistic regression

for the Black subgroup, fair/poor health (OR 3.38 [2.17, 5.27]) and \geq half time in bed (OR 2.35 [1.51, 3.67]) were associated with pain scores \geq the sample median; there was evidence of an association with poorer provider communication (OR 1.52 [0.99, 2.33]). For the White subgroup, female gender (OR 2.82 [1.77, 4.5]), fair/poor health [OR 3.48 [2.08, 5.84] and \geq half time in bed (OR 2.15 [1.34, 3.45]) were associated with higher pain scores.

Conclusion: Though fair/poor health and more time in bed were associated with higher pain scores in both races, there was some variation by race, with female gender associated with higher pain scores for White patients and poorer provider communication associated with higher pain scores for Black patients. This suggests potentially different areas of focus for improving pain management.

A202

Access and Availability of Home and Community-based Services (HCBS) and resources post COVID-19

J. Weil,¹ N. Karlin.² *1. Health Sciences, Gerontology Program, Towson University, Towson, MD; 2. Psychology, University of Northern Colorado, Greeley, CO.*

Background: Delivery of Home and Community-based Services (HCBS) to older adults have changed post-pandemic. There are increasing disparities in access and availability of services and differing health outcomes for underrepresented groups of older persons, with access varying for persons of different racial and ethnic groups, socioeconomic statuses, regional variations, and with differing cognitive statuses. We conducted a Delphi panel of 33 self-identified HCBS expert health professionals to rate and review existing HCBS measures.

Methods: Experts were selected for their knowledge of HCBS and their work in the field of aging. Using a Qualtrics survey of those working with HCBS in the aging network offered insights about the applicability of HCBS items from resources and services from both the Older Adult Service Usage Assessment and the Person-Place Fit Measure for Older Adults. Expert rated closed-ended items on a Likert scale and narrative in open-ended questions suggested new items important to HCBS in relationship to COVID. Analysis consisted of calculating descriptive statistics and summary scores for the Delphi panel's ratings on each survey item and identifying items perceived as of HCBS importance on a Likert scale of 1=not important to 5=extremely important. SPSS 28 was used to analyze the closed-ended questions. Themes and counternarratives were gathered from the data for the open-ended questions.

Results: Descriptive data, provided in Table 1, for all 33 participants identified the top service needs as home health care, options for long-term care, physician care, affordable housing, and a caregiver program. The highest ratings of importance for an older adult in terms of HCBS person-place fit were feeling safe in their home, having family as needed, feeling able to care for their home, feeling resources are sufficient, and the community has accessibility options. The top five areas identified on ways service provision has changed since the COVID-19 pandemic were: food and financial issues, isolation, technology/telehealth, health related issues and treatment, and service needs and expectations.

A203

Racial disparities in osteoporosis screening and treatment among older men in a Fracture Liaison Service primary prevention trial

R. Lee,^{3,1} J. Jadhav,³ I. Igwe,³ K. Lyles,^{3,1} R. Adler,² C. Colón-Emeric.^{3,1} *1. Duke University, Durham, NC; 2. VA Richmond Medical Center, Richmond, VA; 3. Durham VA Health Care System, Durham, NC.*

Background: Published studies have shown significant disparities in osteoporosis screening and treatment between White and Black older adults. We evaluated whether there were racial differences with a Fracture Liaison Service (FLS), a fracture prevention model of care.

Method: In this secondary analysis of the Models of Primary Osteoporosis Screening in Men (MOPS) trial, those randomized to the Bone Health Service (BHS), a centralized FLS, were evaluated. The MOPS trial identified men age 65-85 years with no history of fracture or osteoporosis but with the presence of ≥ 1 fracture risk factor. The BHS intervention included a Nurse who identified at-risk individuals using a medical record query, coordinated DXA scheduling, and provided osteoporosis education; and a Physician who reviewed clinical data and DXA results to provide treatment recommendations. Treatment recommendations included initiation of bisphosphonate therapy or referral to the Specialty Bone clinic. Statistical analyses for differences by race were performed using chi-square test.

Results: 1967 older men were randomized to BHS, of whom 1156 accepted DXA screening. Black men were more likely to accept DXA screening, compared to White men (84.9% vs 73.8%, $P < 0.001$). Among Black men, 34.9% were diagnosed with osteopenia or osteoporosis, compared to 52.5% of White men ($P < 0.001$). Among those with osteopenia by DXA, Black men were less likely to have high fracture risk as calculated by FRAX, compared to White men (13.0% vs 52.6%, $P < 0.001$). Thus, Black men were less likely to be recommended for osteoporosis treatment, compared to White men (7.6% vs 28.1%, $P < 0.001$). However, there was no difference in treatment acceptance rate between Black and White men (79.4% vs 88.4%, $P = 0.31$).

Conclusion: The BHS intervention improved DXA screening among Black older adults with ≥ 1 fracture risk factor. While osteoporosis or high fracture risk by FRAX was less common among Black men, there was no significant difference in treatment acceptance rate. Our results suggest FLS programs may help reduce racial disparities and improve guideline-based treatment in osteoporosis care.

A204

Neighborhood Socioeconomic Deprivation and Healthcare Costs in Older Community-Dwelling Adults: A Prospective Cohort Study

J. T. Schousboe,^{1,2} L. Langsetmo,² A. Kats,² B. Taylor,² C. Boyd,³ K. Ensrud.² *1. Health Care Research, HealthPartners Institute, Minneapolis, MN; 2. University of Minnesota Twin Cities, Minneapolis, MN; 3. Johns Hopkins Medicine, Baltimore, MD.*

Background: The association of neighborhood socioeconomic deprivation with health care costs in older adults is uncertain. We estimated the association of neighborhood area deprivation index (ADI) with total health care costs among older Medicare beneficiaries, and determined whether these associations are explained by multimorbidity, phenotypic frailty, or functional impairments.

Methods: 8165 community-dwelling fee-for-service Medicare beneficiaries (mean [SD] age 79.3 [6.3] years, 52.9% female) who had index examinations (2002-2011) in 4 prospective cohort studies linked with Medicare claims. ADI of participant residence census tract determined using American Community Survey data. Hierarchical Conditions Category multimorbidity score ascertained from Medicare claims. Self-reported functional impairments (difficulty performing four activities of daily living) and frailty phenotype (operationalized using 5 components) were assessed at index exams. Total health care costs (sum of inpatient, outpatient, skilled nursing facility, and home health care costs [2020 U.S. \$]) were estimated from Medicare claims for 36 months after the index exam.

Results: Mean incremental annualized total health care costs adjusted for age, race/ethnicity, and sex increased with poorer ADI (\$3317 [95% CI 1274 to 5360], overall p-value for ADI 0.009) for the poorest vs. wealthiest ADI quintile. The incremental cost for the poorest vs. wealthiest ADI quintile was increasingly attenuated after separate adjustment for multimorbidity (\$2407 [95% CI 416 to 4398], overall ADI p-value 0.066), frailty phenotype (\$1962 [95% CI 11 to 3913], overall ADI p-value 0.22), and functional impairments (\$1246 [95% CI -706 to 3198], overall ADI p-value 0.29).

Conclusions: Total health care costs are higher for older community-dwelling residents of socioeconomically deprived compared with wealthy areas. This association was largely explained by a higher prevalence of functional impairments among residents of poorer neighborhoods. Further studies in residents of poor neighborhoods are warranted to evaluate the effect of interventions aimed at improving functional status on reducing health care costs and utilization.

A205

Association Between Individual Characteristics and Days Spent at Home among Older Adults

H. Gotanda,¹ N. Qureshi,^{1,2} 1. Cedars-Sinai Medical Center, Los Angeles, CA; 2. Pardee RAND Graduate School, Santa Monica, CA.

Background: Days spent at home (DAH)—defined as the number or proportion of days an individual spends outside of health care facilities—has emerged as a person-centered outcome measure. However, it remains largely unknown as to individual characteristics associated with DAH among older adults.

Methods: Using a nationally representative sample of older adults aged ≥65 years from the 2010-2018 Health and Retirement Study (HRS) data, we examined the association between individual characteristics and DAH among older adults. Individual characteristics include demographics, socioeconomic position, comorbidities, and social support (e.g., proximity to children), assessed prior to the DAH measurement period. We defined DAH as the percentage (range 0-100%) of days a participant spent outside of hospitals and nursing homes based on self-reports during the time between two consecutive HRS interviews (typically 730 days). We fit a multivariable two-part regression model.

Results: We included 40,484 observations. The mean DAH was 98.1% (SD 7.1%), and 71.9% of participants spent all days at home. Individual characteristics associated with fewer DAH include age group 80-89 (adjusted difference vs. age group 65-69, -0.29 percentage points [pp] 95% CI, -0.47 to -0.12) and ≥90 (-0.72pp; -0.93 to -0.50), dual eligibility (-0.39pp; -0.61 to -0.16), comorbidities, such as stroke (-0.50pp; -0.71 to -0.30) and dementia (-0.36pp; -0.59 to -0.13), and limitations in activities of daily living (-0.22pp per one limitation; -0.27 to -0.18). Individual characteristics associated with more DAH include female gender (+0.20pp; +0.07 to +0.33), self-identified non-Hispanic Black race and ethnicity (+0.21pp vs. non-Hispanic White; +0.03 to +0.39) and Hispanic ethnicity (+0.45 pp; +0.30 to +0.59), being in the highest wealth quartile (+0.26pp vs. lowest quartile; +0.10 to +0.41), and being married (+0.90pp; +0.50 to +1.30). We found no evidence that proximity to children or living alone was associated with DAH.

Conclusion: We identified individual characteristics associated with DAH. Our findings provide the basis for the future use of DAH as a person-centered outcome measure.

A206

Identifying Caregivers of Persons Living with Dementia Using Electronic Health Record Data

J. Portz,¹ J. Lyons,¹ D. Martin,¹ D. Powers,¹ A. Daddato,¹ R. Boxer,^{2,1} E. Bayliss.¹ 1. Kaiser Permanente Colorado Institute for Health Research, Aurora, CO; 2. University of California Davis, Sacramento, CA.

Background: Caregivers for people living with dementia (PLWD) make up a diverse group of individuals and can include family, friends, and neighbors making up a caregiving social network. Identifying caregivers through the electronic health record (EHR) is challenging in the absence of specific caregiver fields and the collection of multiple caregivers is even more limited. The objective of this research was to combine structured and unstructured EHR fields to comprehensively capture caregiving information across the caregiving network.

Methods: We identified PLWD (aged ≥18) from Kaiser Permanente Colorado (KPCO) from January 1, 2020 through November 2, 2022 with an active diagnosis of dementia with behavioral disturbances and with 1+ in-person or telehealth visits after the initial date of the ICD code added to their problem list. This exploratory work used two primary data sources: 1) The KPCO EHR and 2) the Virtual Data Warehouse for unstructured patient notes, patient portal data, and structured patient contact data. A list of caregiver key terms combined with name matching was also used to identify caregivers in unstructured text.

Results: 792 PLWD were identified and were mean age 84.1 (SD 8.5), 63% female, and 20% from an underrepresented race or ethnicity. 752 (94.9%) had at least one caregiver name listed in a structured field (mean=2.1), termed here a named agent: emergency contact (n=747, 94.4%), at least one healthcare agent (n=298, 37.6%), legal guardian (n=58, 7.3%), portal proxy (n=79, 10.0%) and close relative listed in patient relationship table (n=749, 94.5%). Among the 752 who had at least one named agent, when we matched caregiver term text with named agents (first, and full name), over 95% of the cohort had at least one mention of a named agent’s full name near a caregiver term in encounter notes; 52% had a full name match in patient portal messages. Among named agents, 91% had their full name mentioned at least once in an encounter note, 89% were listed alongside a caregiver keyword, and 67% of them were mentioned explicitly with the word “caregiver” or “care partner”.

Conclusions: We developed an algorithm to identify potential caregivers across the caregiving network using structured and unstructured EHR data to potentially enhance health services for PLWD and their network of caregivers.

A207

Using focus groups to refine a technology-based psychosocial program for Older People with HIV

E. E. Frey, M. A. Hernandez, M. Ceruso, B. Kim, C. Burchett, S. J. Czaja, E. L. Siegler. Division of Geriatrics and Palliative Medicine, Department of Medicine, Weill Cornell Medicine, New York, NY.

Background: Older people with HIV (OPH) are at increased risk for challenges such as depression, social isolation, and loneliness. Technology-based interventions can help to address these issues; however, there have been few studies assessing such interventions for OPH. As part of a larger study aimed at developing a technology-based psychosocial intervention to enhance social engagement and support and resource access for OPH who are long-term survivors (LTS), focus groups were conducted to obtain OPH’s input on the content and functionality of the planned intervention.

Methods: Three in-person focus groups were conducted at NYP-Weill Cornell from July- September 2023. Participants included adults with HIV, 50 years of age or older and LTS (diagnosed with HIV ≥ 20 years), recruited from the HIV clinic at NYP-Weill Cornell. The focus groups were audio-recorded and transcribed with Otter.ai. Transcripts were then verified by independent coders who identified themes from the transcriptions.

Results: Twenty-three OPH, ages 53–71, participated in the groups. The majority of participants had at least 5 years’ experience using a computer (65%) and the internet (78%). Participants overwhelmingly supported the technology-based intervention. They expressed that it would fill an unmet need. Even those who attended support groups felt that the program would facilitate further connection with local OPH and allow them to learn from one another. They envisioned the program as a “one stop shop” that would provide both resources and support for HIV/aging concerns. Content preferences included features addressing physical health, mental health, and social well-being. Caregiving and bereavement were highlighted as special concerns. They also preferred a group training format to provide opportunities for peer support and socialization while learning the program.

The focus groups themselves became socialization opportunities and many participants shared contact information.

Conclusions: OPH were overwhelmingly positive about a technology-based program aimed at enhancing social connection and improving well-being. Key components of the system should include establishing modes for connection with other OPH in a safe space; content addressing physical, mental and social needs; and an easy to navigate interface.

A208 Encore Presentation

Near-Infrared Spectroscopy *In Vivo* Distinguishes Amyloid Deposition in Subjects With Alzheimer’s Disease

B. Schell,^{1,2} F. Greco.² *1. Geriatrics, Boston Medical Center, Boston, MA; 2. VA Bedford Healthcare System, Bedford, MA.*

Background: Cerebral amyloid angiopathy (CAA), a condition characterized by amyloid beta peptide deposition in cerebral vasculature, is commonly found in patients with Alzheimer’s disease (AD). Previous studies have shown that it is possible to distinguish subjects with Alzheimer’s disease from age-matched controls *in vivo* using near-infrared (NIR) spectroscopy. However, correlating neuropathological findings with the spectral features that best distinguish disease from control remains a challenge.

Methods: Tissue optics predict that pathology in the leptomeningeal vasculature should be distinguishable from that of the adjacent brain parenchyma. In this study, NIR spectra were acquired *in vivo* from subjects with autopsy confirmed AD (n= 26). Postmortem specimens were histologically classified according to the degree of CAA (0 to 3) noted in the leptomeningeal vasculature for each patient. A feature selection approach was used to discover spectral features that distinguished patients with high versus minimal degrees of CAA found at autopsy (scored as 3 vs. 0, respectively).

Results: Two distinct spectral regions around 768nm and 891nm were identified as discriminants which could properly classify patients according to their CAA score, suggesting that these regions are correlated with amyloid beta peptide deposition.

Conclusions: These results suggest that NIR spectroscopy can be used to detect and possibly inform the burden of amyloid deposition. More research is needed to establish if this technique can be used to monitor disease progression and response to therapeutic interventions, especially in light of emerging new immunotherapies.

A209

Undiagnosed Dementia in an Underserved African American Population: Missed Opportunities of Care

G. Cohen,¹ M. Perkins,¹ K. Hepburn,¹ O. free,² M. Mati.¹ *1. geriatrics and gerontology, Emory University, Atlanta, GA; 2. Emory University Woodruff Health Sciences Center, Atlanta, GA.*

Background

The distribution of dementia in the American population is not equal. Racial disparities exist in the incidence, prevalence, and management of dementia. Previous studies have shown a dementia risk is twice as high for African Americans compared to non-Hispanic White Americans. Missed diagnoses and later diagnoses occur frequently in this population and delay the implementation of specialized dementia care plans.

Methods

Cross-sectional, mixed-methods study consisting of a standard geriatric assessment, dementia focus interview and semi-structured qualitative interview with 20 dyads (subjects living with dementia and comorbidity and caregivers) at a geriatric clinic Tests performed: Clinical Dementia staging Score, Neuropsychiatric inventory, caregiver burden scale, and analysis of comorbidities.

Results: Sample: Frail older adults with multiple geriatric syndromes, 90% were women, the mean age was 78 years (range 65 -96), 100 % were African-American. Diagnosis: 11 cases: Alzheimer’s

disease, 7 cases: mixed dementia, 1 case: vascular dementia, 1 case: Lewy Body Disease. Living situation: 5 patients lived alone. Staging at diagnosis: 3 cases: severe dementia, 10 cases: moderate dementia, 10 cases: mild dementia. The mean time from the first symptom of dementia to diagnosis: 3.3 years (range: 1 to 10). No cases were diagnosed at Minimal Cognitive Impairment Stage. Analysis of 15/20 cases in which the diagnosis was delayed for more than 1 year after symptoms onset. Reasons for late diagnosis: 12 cases: lack of recognition by family members. 7 cases: patient’s primary care provider suggested tests but the family didn’t follow up, 3 cases lack of recognition by primary care providers. impact of late diagnosis on health outcomes: non-compliance with medications and uncontrolled comorbidity, unintentional weight loss, multiple Emergency Room visits, and safety issues.

Conclusions: we observed a significant time delay in the diagnosis of dementia and many cases had moderate to severe dementia stage when diagnosed. The impact of lack of an accurate diagnosis has medical and social consequences for patients and families. Strategies to increase screening in primary care settings are needed to improve access to dementia-specific services and improve care and well-being in this vulnerable African-American population.

A210

Prevalence and Improving Dehydration in Nursing Home Residents

I. Hamrick,^{1,2} M. L. Bauer.³ *1. Medicine, Cincinnati VA Medical Center, Cincinnati, OH; 2. Family and Community Medicine, University of Cincinnati, Cincinnati, OH; 3. Nursing, Cincinnati VA Medical Center, Cincinnati, OH.*

Background

Dehydration in older adults is common and is 37% among community living older adults. No prevalence in nursing homes is published.

Methods

We identified dehydration based on blood urea nitrogen and creatinine (BUN/Creat) ratio as $\geq 20:1$.

We implemented several approaches to improve dehydration rate in our VA facility:

- Providing favorite drink at: bedside, table, or wherever resident is
- Encourage to drink on entry to room and before leaving
- Flavored water
- Door magnet
- Huddle meetings with staff:
- Education of aging changes that put older adults at risk of dehydration

- Reason for need of 2 quarts or more a day
- Asking staff for their tips on how to increase fluid intake
- Asked for barriers to implementation
- Discussing with staff and showing progress over time

Results

Veterans Administration (VA) nursing facility of 20-48 residents (varied because of pandemic) over the past 3 years:

Dehydration improved from 75% to 37.5% over 3 years.

We found improved behaviors in our residents and fewer hospitalizations.

Fall rates for the past 3 years (Long Stay, Short Stay/Rehab, and Hospice) have significantly declined every year, from 6.4 in 2021 to 3.9 in 2023.

UTI for Long Stay residents have trended downward for more than 2 years, and for catheter associated UTIs, we moved to the 1st quintile, receiving a #1 in the nation ranking among all VA nursing homes, Community Living Centers.

Challenges: Patient turnover, co-morbidities, poor insight, and unwillingness to drink. Staff turnover requires us to keep education ongoing.

Conclusion

Multiple approaches and ongoing education over time cut our dehydration rate in half over 3 years. We noted fewer UTIs, falls, behaviors and hospitalizations.

Future plans: hydration cart, point of care test, cup to keep track of intake. A larger study to confirm our findings.

This material is the result of work supported with resources and the use of facilities at the Cincinnati VA Medical Center.

A211

Retrospective Chart Review to Assess Appropriate Prescribing of Medications: A Quality Improvement Educational Project

S. Yau,³ T. Yogaparan,² V. See,³ P. Sankar,⁴ A. Huynh,³ A. Berall,¹ K. Ramirez,¹ J. Moloney.¹ 1. *Baycrest, Toronto, ON, Canada;* 2. *medicine, Baycrest Health Sciences, Toronto, ON, Canada;* 3. *Pharmacy, Baycrest, Toronto, ON, Canada;* 4. *Medicine, University of Toronto, Toronto, ON, Canada.*

Background: Polypharmacy is a global problem and increases the risk of adverse outcomes, which can be addressed by deprescribing, defined as a planned process of reducing or stopping medications that may no longer be of benefit or that may be causing harm. Medication review is a structured process, consisting of the evaluation of all patient medications focused on optimizing pharmacological management. To understand the current prescribing practices, we conducted a retrospective chart audit focused on quarterly medication reviews of long stay patients at Baycrest.

Method: A needs assessment was completed through a retrospective chart review, 30 randomly selected patients, admitted to Complex Continuing Care from 2015-2018, with a length of stay over 180 days. We excluded patients <65 years of age and those deemed palliative on admission. A specific data collection tool was constructed to extract information including demographics, comorbidities, goals of care (GOC), medications, and with each quarterly medication review, additional details were collected involving the deprescribing process, such as identifying potentially inappropriate medications, and assessing the appropriateness of medication continuation over discontinuation and under treatment. Descriptive statistics was utilized for data analysis

Results: Average age 76 years, 63% males and 37% females, case mix index 1.2, all patients had multi-morbidity, mean number of prescribed scheduled meds, 12.4(5.1), PRN meds 5.4(1.7). The needs assessment revealed 95% had 3 completed medication reviews of which 68% of medications have an indication identified; patient GOC identified in 57%, calculation of life expectancy 0%, and no standardized assessment tool was used. High risk medications such as benzodiazepines and antipsychotics without indication were deprescribed quickly. Underprescribing was very low.

Conclusions: The findings from our retrospective chart review highlight the current gaps in the medication review process and create opportunities to optimize medical management and ensure safe medication use in older patients. These results will inform the development of the educational program and reinforce the importance of structured medication reviews as a critical component of patient care.

A212

Age-Friendly Hospital Initiative in Brazil

F. Andrade,^{1,2} P. G. Paraiso,² J. E. Duarte,² G. Vaz de Moraes,² K. C. Giacomini.² 1. *Florida Atlantic University, Boca Raton, FL;* 2. *Instituto Orizonti, Belo Horizonte, Brazil.*

Background: Multimorbidity, polypharmacy, functional loss, cognitive decline, and frailty pose significant challenges in providing healthcare for older adults. Despite the global aging population, there are limited initiatives focused on enhancing elderly care. In response, the World Health Organization (WHO) introduced Age-Friendly Principles to enhance healthcare for this population. In Brazil, older adults constitute 15% of the population, contribute to 23% of hospital

admissions, 37% of hospital costs, and 47% of adverse events during hospitalizations. Consequently, the implementation of elderly-friendly hospitals is imperative in the country. This study aims to outline the outcomes of implementing an Age-Friendly Hospital model in a Brazilian hospital.

Methods: The implementation involved regular training for the multidisciplinary team, infrastructure improvements, and development of institutional protocols to prevent adverse events such as falls and functional decline. Additionally, a modified version of the validated Hospital Elder Life Program (HELP) was utilized for at-risk patients. Eligibility for specialized geriatric team monitoring was based on clinical and functional criteria, including age 80 or above, prior bed confinement, cognitive impairment, three or more hospitalizations in the last 12 months, hospitalization due to falls, or acute mental confusion.

Results: A total of 14,278 patients were admitted to the hospital from January to October 2023. 446 patients met the criteria for follow-up by the specialized geriatrics team, 53% were women and 15% were 91 years old or older. The main reasons for hospitalization were diseases of the respiratory system (34%) and genitourinary system (19.5%). When comparing results with the national database of patients over 80 years of age, a reduction in the overall mortality rate (14% to 11%) and an increase in hospitalization time (7.7 to 10 days) was observed. The readmission rate was 15.72%.

Conclusion: The implementation of an Age-friendly hospital model is a major challenge but has proven to have a positive impact with reduced mortality despite the average increase in length of stay. The lack of better care transition policies and a strong age-friendly health network are barriers faced to the adequate implementation of the proposed model.

A213

Age to Perfection...Respecting Patient Wishes One Document at a Time

M. Y. Zaveri,¹ N. Tatlian,² N. Leland.³ 1. *Family Medicine Residency Program, Emanate Health Queen of the Valley Hospital, West Covina, CA;* 2. *Infection Control, Emanate Health Queen of the Valley Hospital, West Covina, CA;* 3. *Rehabilitation, Emanate Health Queen of the Valley Hospital, West Covina, CA.*

Background: Documentation of patients' advance directive (life wishes) often are noted to being incomplete, missing, and untimely. This may result in patients wishes not being met. It can create conflict and frustration for the staff caring for the patient, low patient satisfaction, and may result in unnecessary patient treatment and care. Advance care planning helps increase advance directive documentation, lower cost, shorten length of hospital stay, prevent unwanted care, and avoid unwanted lawsuits. A goal was set to improve the number of completed Life Wishes Assessment documentation by 50% over the baseline by project end at a local community hospital. 50% increase over baseline in the number of accessible complete Life Wishes Documents in the community-based hospital EMR by discharge by October 31, 2021.

Methods: This study evaluated the current quality of the process of obtaining and documenting patients' life wishes. This project went through define, measure, analyze, improve, and control phases. To assess reliability, 232 patient charts were reviewed retrospectively between April and June 2021 at a local community hospital. Two-proportion testing was performed.

Results: Team led quality-based improvements through process changes resulting in completion of life wishes assessment rate from a baseline of 38% to 99% (p=0.000) and completion of nursing education regarding advance directives provided to patients from baseline of 3% to 84% (p=0.000).

Conclusions: The quality improvement team led improvements and process changes. These improvements created a standardized

procedure for documentation on a new revised template, provided live education of changes at nursing huddles, built required fields into the hospital EMR, created a hard copy of education, included addition of life wishes to a reminder list to allow for follow up, and automated the education material being provided at hospital discharge. All implemented solutions guaranteed performance. Ongoing monitoring was handed over to future teams to be impacted by implementations and tracking of adherence to abide by The Joint Commission.

A214

Improving Use of Mobile Self-Care Apps to Enhance Social Connection in Older Veterans

J. Lutz,¹ S. Beaudreau,¹ C. Davis,³ C. Gould,² *1. Sierra Pacific Mental Illness Research, Education, and Clinical Center, VA Palo Alto Health Care System, Palo Alto, CA; 2. Geriatric Research, Education, and Clinical Center, VA Palo Alto Health Care System, Palo Alto, CA; 3. VA Palo Alto Health Care System, Palo Alto, CA.*

Background: Social disconnection (loneliness, isolation) is a critical risk factor, comparable to smoking and obesity, for numerous negative health outcomes and mortality. Though improving social connection is critical to improving outcomes, little is known regarding effective, scalable interventions for older Veterans. Also, many existing interventions focus on opportunities for socialization but do not teach the skills needed to initiate and maintain social ties. Leveraging existing VA mobile mental health apps to improve social connection may be an intuitive and low-cost strategy.

Methods: We conducted semi-structured qualitative phone interviews with 13 Veterans (ages 60-82; 100% male; 23% Hispanic; 85% White) who reported loneliness (score ≥ 6) on the 3-item UCLA Loneliness scale. We identified their social needs and what barriers they encounter when trying to meet these needs. We also ascertained their perceptions on how VA mobile mental health apps (e.g., PTSD Coach) may be used to support social connection, and what additional support is needed from the VA. Data were analyzed using rapid qualitative analysis.

Results: Common social needs included connecting with people with similar experiences, engaging in romantic relationships or dating, and making friendship connections. Barriers included mismatches in personalities and experiences (inc. military background) with people they meet; mood symptoms (low motivation, anhedonia); transportation/accessibility issues; and sensory/functional limitations. Veterans reported interest in using mobile apps to overcome barriers, but voiced concern about lack of comfort with technology and usability, particularly among the oldest generations. Many were interested in coaching to assist with technology use and provided input on desired formats (e.g., individual or group).

Conclusions: Older Veterans express interest in using mobile mental health apps to address barriers to social connection, but call for support in learning the technology. This feedback is being used to develop a program to teach older Veterans mobile device and app basics and provide coaching to address individual barriers and goals for improving social connection via mobile apps.

A215

A practice evaluation project measuring dementia caregiver satisfaction in caregivers of low-income patients compared with all program patients.

E. Gordon, DO,¹ C. Woods, BSW,¹ E. Lackey, MSW,¹ K. Robinson, BA,¹ E. Stavish, MBA,¹ E. Jauch, MD MS MBA,² M. Noel, MD,¹ *1. Geriatrics, MemoryCare, Asheville, NC; 2. MAHEC, Asheville, NC.*

Background: MemoryCare is an independent, outpatient, community-based organization, located in Asheville, NC dedicated to supporting older adults with cognitive disorders and their family caregivers. This organization focuses on not only diagnosing and treating the patient but also equipping the caregiver with the resources they

need to provide care to their loved one. A large proportion of our services (45%) are provided to individuals living in rural communities. Each year, since 2000, all caregivers enrolled in the program complete a caregiver questionnaire to assess their satisfaction with the program. MemoryCare desired to compare whether there is a difference in caregiver satisfaction among caregivers of low-income patients compared with the general group. The intention was to identify if the program is adequately supporting these families.

Methods: The program satisfaction survey conducted in March of 2023 included caregivers of all income levels. For this quality measurement project, the caregivers of low-income patients who had been enrolled for at least one year were identified based on income data submitted by the caregiver for the current year. To see if there is a difference in program satisfaction for caregivers of low-income patients relative to the whole population survey, they were resurveyed (September 2023). Each caregiver was emailed to request they complete an anonymous survey with the option to participate online or via mail. Once surveys were returned, responses were collated and group comparisons performed. Chi-squared and Fisher's exact tests were used to investigate associations between categorical variables, as appropriate. P values less than 0.05 were considered significant for our analyses.

Results: Survey responses totaled 429 and 51 for the annual survey and low-income survey, respectively. No response had a statistically significant difference between the two groups.

Conclusion: Based on the annual and targeted surveys, caregivers of low-income patients have comparable satisfaction with the MemoryCare program compared to the overall population served. Future refinement of the annual survey may identify opportunities for improvement when serving caregivers of low-income patients.

A216

Implementing Age-Friendly Care at an urban Federally Qualified Health Center (FQHC)

K. Tejada Arias,^{1,3} A. Rink,² R. Marottoli,² N. Gallant,² R. Quaye,¹ D. Melendez,¹ J. Cortes,¹ B. Wu,² J. Ouellet,² B. Oldfield,^{1,3} L. Whitmire,^{1,3} *1. Fair Haven Community Health Care, New Haven, CT; 2. Yale University, New Haven, CT; 3. Yale New Haven Health System, New Haven, CT.*

It is essential that healthcare systems address the unique care needs of the growing older adult population. Strategies for implementing comprehensive geriatric assessments in community health centers are needed.

Fair Haven Community Health Care, implemented the 4Ms Framework of Age-Friendly Care from the Institute for Healthcare Improvement, for patients 65 and older.

The 4Ms Framework engages a multidisciplinary team to address four challenges faced by older adults: polypharmacy, falls, cognition and what matters most.

Clinicians and staff were trained to address the 4Ms during patient encounters, and learned how the documentation is integrated into the patient's notes. Changes to the Electronic Medical Record included the addition of fall risk and cognition assessment. There was a comparative analysis of time allocation between patients who underwent the 4Ms approach and those who did not.

Feasibility was assessed by considering the clinician's and staff's perspectives on the implementation of the new approach and how to seamlessly integrate the 4Ms into their daily workflow as well as a patient satisfaction survey.

Over a 3-month period, one hundred and fifty-one patients received the intervention. These participants were predominantly Hispanic (38%, n=57), African American (25%, n=37) or white (36%, n=54).

Staff expressed satisfaction with workflow, patient care and EMR documentation. Furthermore, the study revealed a substantial increase in patient satisfaction, with patients reporting greater sense of involvement in their health decision making process.

We demonstrated feasibility and effectiveness of incorporating the 4Ms Framework into routine care for older adults in a busy community health center setting. The successful implementation demonstrated the capacity to provide evidence based care and enhance patient engagement, indicating a promising shift towards tailored, patient centered healthcare delivery for this vulnerable population.

Patient Satisfaction Survey Question Responses

Question	Yes	No	N/A
Do you think your provider and staff aligned your care to what matters most to you?	100% (50)	0% (0)	0% (0)
Did you feel your concerns were heard?	94% (49)	4% (2)	2% (1)
Do you remember being asked about falls?	87% (47)	13% (7)	0% (0)
Do you remember being asked about your memory and having a memory test?	100% (51)	0% (0)	0% (0)
Where you asked about your mood?	95% (39)	5% (2)	0% (0)
Do you remember the nurse or provider reviewing all your medications?	96% (49)	2% (1)	2% (1)
Did they explain if you had harmful medications and stopped them if necessary?	73% (33)	16% (7)	11% (5)
Where you offered to fill out a health care proxy or living will?	85% (40)	15% (7)	0% (0)

**A217
Value Based Care Organizations/Geriatric Emergency Department Toolkit**

C. Andrews. *Clinical, West Health Institute, La Jolla, CA.*

West Health Institute (WHI) created and tested a toolkit as a pilot program to forge aligned partnerships between Value Based Care Organizations (VBCOs) and Geriatric Emergency Departments (GEDs). With 60% of Medicare admissions originating in the emergency department (ED), interest in senior-focused emergency care has resulted in nearly 500 GEDs. Now, over 15% of all ED visits by adults 65+ in the US are occurring in a GED. At the same time, VBCOs that are financially responsible for patient care are learning that GED collaborations can improve care and reduce unnecessary admissions. In partnering with VBCOs, GEDs can deploy services to transition patients back to their homes with resources provided by the VBCO. The pilot included four VBCOs, three of which are recognized by the Institute for Healthcare Improvement as Age-Friendly Health Systems, and their local GEDs.

To identify participating teams, researchers from WHI utilized a crosswalk analysis of ACOs and GEDs created in collaboration with the IAC. This data analysis displayed the percentage of ACO Medicare Shared Savings Program (MSSP) beneficiaries who seek care in an accredited GED. VBCOs were selected based on a significant overlap with their identified GEDs. The resulting dyad teams completed pre- and post-pilot surveys, attend monthly peer-to-peer work group meetings, and provide two summary reports of feedback on the resources as they worked through the steps of connecting with their dyad partners.

Teams reported the partnerships were valuable and mutually beneficial. The post-toolkit pilot survey results revealed that, since the implementation of the toolkit:

70% of respondents had increased or improved implementation measures in the ED to reduce or avoid hospitalizations.

100% of respondents stated the frequency of communication between the two organizations had increased.

100% of respondents stated their organization had met its goals for the pilot and planned to continue partnering together in the future.

Specifically, dyads began scheduling regular calls, improving notification systems when VBCO patients arrived at the GED, and engaging in bilateral staff education efforts.

Due to the positive results of the pilot and enthusiastic feedback from the participating organizations, WHI is connecting VBCOs and GEDs in 2023-2024 by launching a Learning and Action Network. The new goal is not only to build these connections and partnerships, but to track key data metrics and monitor the impact of these partnerships.

**A218
Veteran Satisfaction with Virtual Comprehensive Geriatric Assessment**

L. M. Sawyer,² H. Keller,² M. Cervantes,¹ T. Howell,¹ J. Dunlap,¹ C. Cigolle,³ D. H. Sullivan.² *1. North Florida South Georgia VA, Jacksonville, FL; 2. Central Arkansas Veterans Healthcare System, Little Rock, AR; 3. Ann Arbor VA, Ann Arbor, MI.*

Background

The purpose of this project was to measure satisfaction with virtual comprehensive geriatric assessments (CGA) among older Veterans (OV) from two different cohorts.

Methods

After completing a virtual CGA using VA Video Connect (VVC), participants were asked to complete a 10-question telephone survey which included three 5-point Likert questions about comfort with VVC, ease of VVC relative to in-person visits, and willingness to use VVC again. The remaining 7 questions were excluded from analysis. Agreement with questions was dichotomized as Agree (Agree/Strongly agree) or Disagree (Neutral/Disagree/Strongly Disagree) prior to analysis. Binomial generalized linear models (GLM) were used to assess agreement with each question as a function of independent variables age, race, rurality, and cohort.

Results

One hundred thirty-five Veterans completed a CGA using VVC from March 1, 2022 to September 30, 2022 (cohort 1, n=79) or from October 1, 2022 to February 3, 2023 (cohort 2, n=56). Participants were aged 75.8±6.09, predominately white (84%), male (96%), and residents of rural settings (64%). The survey was completed by 111 (82%) participants. Most felt comfortable using VVC (64%) and expressed willingness to use VVC again if offered (62%). About half felt that VVC was easier than in-person visits (48%). However, binomial GLM results indicated that, compared to Veterans from cohort 1, Veterans in cohort 2 reported less comfort with VVC (OR: 0.179; p<0.001) and were less likely to perceive VVC as easier than in-person visits (OR: 0.315; p=0.007). Compared to white Veterans, non-white or multiracial Veterans were less comfortable with VVC (OR: 0.287; p=0.044). No significant differences were found in willingness to use VVC again.

All Veterans had similar health status due to inclusion criteria, all received care at the same facility and the authors have little reason to suspect that cohort 1 is vastly different from cohort 2. The most important difference between the cohorts was time.

Conclusion

Further work is needed to determine whether comfort with and perceived relative ease of VVC is decreasing over time and why, and why non-white or multiracial Veterans express less comfort with VVC.

**A219
An Aging Disability Resource Center (ADRC) benefits counselor imbedded in a Senior Health Outpatient Program (SHOP) succeed in assisting nearly 60% of patients screened.**

J. w. Campbell, K. Gallagher, M. Dietz. *Geriatrics, MetroHealth Medical Center, Cleveland, OH.*

Background

(ADRC) are a nationwide effort to assist seniors and adults with disabilities needing help with activities of daily living. The benefits counselor was imbedded in the Geriatric clinic at an urban health system in a midwestern city. As a safety net health system, our geriatric patients have significant challenges related to social determinants of health.

Methods

General patients in our health system have significant impairment in social determinants of health (SDOH). Medicare patients also have significant impairment in SDOH. Counselor screened patients from the SHOP; seen between 1/1/2023 and 10/1/2023.

sScreened n=1019.
 Female 612 (60%)
 Lives alone 693 (68%of total) 61% living alone were female)
 Living in Poverty 662 (65%of total) 61 % living in poverty were female
 High Nutrition risk 213 (21% of total) 61% with high nutrition risk were female

Results

SDOH screen total n=133,990, m
 Medicare n=32,396
 Social isolation 50% System 46% Medicare
 Financial strain 28% System 22% Medicare
 Physical Activity 22% System 30% Medicare
 Stress 21% System 13% Medicare
 Food insecurity 21% System 18% Medicare
 Housing stability 20% System 16% Medicare
 Lack of transportation 11% System 10% Medicare
 Housing problems 10% System 10% Medicare
 Utilities 8% System 5% Medicare
 Digital connectivity 8% System 14% Medicare
 partner violence 4% System 2% Medicare
 Supportive service delivered – To SHOP patients by benefit counselor, multiple patients received more than one service.

- Banking 7
- Community transition 19
- E-HEAP summer 33
- E-HEAP winter 70
- Financial analysis 36
- Health Insurance 65
- Homestead Exemption 38
- Housing 9
- Medicare QMB 47
- Medicaid SNAP 72
- Paratransit 42
- PIPP (gas electric) 13
- SSDI 16
- Home supportive 59
- Homestead water 55
- Medicare counseling 57
- Food Box delivery 352

Conclusions:

Geriatric patients continue to have significant challenges related to SDOH. A benefit Counselor funded by the ADRN, administered through the Area Agency on Aging can successfully function within a geriatric clinic. Assistance including counseling/education for Banking Benefits analysis, benefits screening, community transitions, financial analysis, health insurance, housing, SSDI and Medicare counseling. More direct enrolment assistance with Homestead (water), home support, PIPP, Paratransit, Medicaid SNAP, Medicare QMB, homestead exemption (tax), EHEAP summer and E HEAP winter.

A220

Complex Transitions of Care: Utilizing Geriatric Nurse Practitioners for Complex Discharge Planning

G. V. Medalle, L. Arquilla-Maltby, E. D. Gometz, M. Bednarczyk. *Internal Medicine, Rush University Medical Center, Chicago, IL.*

Background: The healthcare system utilizes hospital length of stay (LOS) as a quality of care metric. Many “outlier” patients are complex, with multiple chronic medical conditions, unrecognized terminal diagnosis, and poor socioeconomic status (SES) (1). Low rates of goals of care conversations for patients with life limiting illnesses, low SES, diagnosis of major neurocognitive disorder, inappropriate or unsafe discharge disposition, and capitated insurance plans are of drivers of high LOS (2). These outlier cases have a disproportionate impact on overall LOS (2).

Case: The Complex Transitions of Care (TOC) consult team was created, staffed by geriatric medicine trained adult nurse practitioners (NP). A trigger list to initiate a consult to the TOC team was implemented. The program’s goals were to reduce hospital length of stay, reduce 30-day readmissions, increase goals of care conversations (GOC), and assist in optimal discharge dispositions. Data was collected on the first 100 patients in the program.

TOC consult triggers included:

Age greater than 85 AND/OR
 2 or more hospitalizations within 3 months (excludes sickle cell AND/OR

Greater than 70 years of age, living alone, with multiple co-morbidities and/or readmissions OR

Patient’s case manager/social worker/provider feels is medically and socially complex

Poor prognosis due to progressive disease

Conclusion: This TOC model and use of geriatric NPs is effective at increasing GOC and discharges to optimal disposition for some of the hospital’s most challenging patients. Work continues to determine effectiveness on reducing LOS and readmission rates. Starting GOC early in hospital stay, frequent visits to build rapport, and involving all members of team contributed to improved outcomes.

References:

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TOC Consult Outcomes

25% 30 day readmission
26% transitioned to hospice/comfort care
91% had GOC addressed
26% had change in disposition
27% changed code status to DNR

A221

Assessing caregiver burden in an urban, African American population: Is the Zarit Burden Interview enough?

D. N. Trimmer,⁴ M. L. Garcia,² O. free,¹ M. Perkins,⁴ K. Hepburn,³ G. Cohen.⁴ *1. School of Public Health, Emory University, Atlanta, GA; 2. Internal Medicine, Emory University School of Medicine, Atlanta, GA; 3. School of Nursing, Emory University, Atlanta, GA; 4. Geriatrics and Gerontology, Emory University School of Medicine, Atlanta, GA.*

Background

Stress among caregivers is typically assessed using the Zarit Burden Interview 12-item scale (ZBI-12). Recent reviews have suggested racial differences in the appraisal of stress associated with caregiving using ZBI-12. Prior studies have proposed African American caregivers tend to report lower stress, possibly due to cultural attitudes toward the role of the caregiver. We sought to better understand caregiver stress within the African American patient population at our safety net geriatric clinic.

Methods

20 caregivers caring for African American older adults living with dementia were evaluated for caregiver burden using ZBI-12 scale and free qualitative interview (FQI). Consent was obtained from all participants. ZBI-12 was verbally administered. FQI was performed independently by two raters. Recordings of the interview were then transcribed, coded, and analyzed thematically using NVIVO. Results of ZBI-12 and FQI were sorted into no/mild stress and moderate/high stress. Descriptive analysis was performed for caregivers whose FQI stress level results did not correspond with calculated ZBI-12 score.

Results

8 of the 20 caregivers with no/mild stress based on the ZBI-12 had moderate/high stress based on FQI. The mean result of ZBI-12 for the 8 caregivers was 12.64 with a standard deviation of 4.72. All 8 caregivers were female (5 daughters, 2 granddaughters, 1 niece) with age range 30-60 years old. 4 of the 8 caregivers lived alone with the patient. 7 of the 8 caregivers received additional help. Caregivers provided care for varying stages of dementia (1 mild, 5 moderate, 2 severe). All 8 caregivers cared for patients taking >4 medications. Only 3 of the 8 caregivers were caring for patients taking antipsychotics; all 3 of these caregivers had moderate/high stress.

Conclusion

ZBI-12 has potential to underestimate caregiver burden in family caregivers of African American older adults with dementia. Caregiver's living situation and familial relationship impact on caregiver burden are less likely to be detected using only ZBI-12. In this population of caregivers, FQI would add valuable information on caregiver's level of stress.

A222

Effectiveness of patient education on fragility fracture treatment in the nursing home

T. M. Le, K. La, S. Leonard, H. Tran. *Geriatrics, University of California Los Angeles, Los Angeles, CA.*

Background

Osteoporosis, when left untreated, can result in otherwise preventable fragility fractures and subsequent nursing home (NH) admissions. Despite strong evidence supporting anti-osteoporotic drug treatments such as bisphosphonates, many NH patients with fragility fractures remain undertreated. Barriers to treatment include medical contraindications, low risk perception, intolerable side effects, and polypharmacy. In this study, we performed a QI PDSA cycle to determine the effect of patient education on the initiation of osteoporosis therapy in NH patients with fragility fractures.

Methods

We used a non-randomized single group pre-post study design. Data following fragility fractures was obtained from two community NHs in the Greater Los Angeles area. Patients with fragility fractures received educational flyers on osteoporosis covering symptoms, risk factors, diagnosis methods, treatment options, treatment benefits, and potential side effects. The flyers were discussed with the patients in person. Initiation of bisphosphonate and vitamin D treatment, primary care providers' (PCPs) referrals to osteoporosis specialists post-NH discharge, and patient rationales for declining bisphosphonate therapy were obtained via chart review and interview.

Results

Upon discharge, 29% of patients receiving the educational flyers started bisphosphonates. 86% of patients who were vitamin D deficient started supplementation. 21% of patients were referred to osteoporosis specialists by their PCPs. Reasons for non-initiation included polypharmacy, an inability to sit upright for 30 minutes, dysphagia history, anxiety with oral medications, and vitamin D deficiency.

Conclusions

The results from this study indicate that direct patient education may improve rates of bisphosphonate initiation during NH stays. Common reasons for deferring therapy included medical comorbidities and polypharmacy. The study highlights the NH as a potential location to enhance fragility fracture rehabilitation and transitional care standards. Future studies are needed to address non-initiation barriers to further improve NH osteoporosis treatment rates.

A223

Worth the Weight: Improving Weight Loss Evaluation and Management in Long-term Care Residents

K. Caplan,¹ C. Hortelano,¹ Y. Balboul,¹ E. Ruiz Mendoza,¹ N. Sohn,¹ H. Chen,¹ S. Le,^{2,1} R. Spinner.^{2,1} *1. Geriatrics, Icahn School of Medicine at Mount Sinai, New York, NY; 2. The New Jewish Home, New York, NY.*

Background:

Weight loss is a prevalent geriatric syndrome affecting up to 50% of long-term care (LTC) residents and has been associated with adverse outcomes such as increased risk of hospitalization, frailty, falls, and mortality. There remains no standardized tool for evaluation and management of weight loss in LTC residents. Nutrition management within the geriatric population is challenging due to multi-complexity and polypharmacy. Thus, our QI project seeks to improve management of clinically significant unintentional weight loss in LTC settings.

Methods and results:

Our study is based in a 390 bed skilled nursing facility in an urban setting. We defined clinically significant weight loss as $\geq 5\%$ decrease in weight in 30 days or $\geq 10\%$ in 180 days. A 30-day retrospective analysis revealed 18 residents with unintentional weight loss. Of these, 10 (56%) received an assessment by a provider with an average time to assessment of 8.9 days. Notably, the quality of clinical assessment varied widely. We also surveyed on-site providers and identified a lack of standardized approach to weight loss evaluation. We also noted a disparity between perceived and actual follow up rate. Based on the collected data, a process map, and fishbone analysis, we identified two significant areas for improvement: response rate to weight loss and quality of weight loss clinical assessment. Our first PDSA will focus on response rate by changing the current notification process for weight loss from an email to an EMR notification integrated into the existing workflow for managing responses to consultant notes. Our target response rate is 100% over the course of 3 months.

Conclusions:

Weight loss is a highly prevalent but under-appreciated geriatric syndrome. Our planned PDSA cycles will focus on improving the consistency and quality of provider response to weight loss in the LTC setting. Once the response rate is sufficiently improved our future direction will be to standardize evaluation through education and templated notes.

A224 Encore Presentation

Trainee-Led Quality Improvement Initiative to Increase Completion of Advance Directives

S. Rafiq,¹ Z. Omer,¹ S. Dara,¹ S. Gelman,³ M. Parulekar.² *1. Geriatric, Hackensack Meridian Hackensack University Medical Center, Hackensack, NJ; 2. Internal Medicine-Geriatrics, Hackensack University Medical Center, Hackensack, NJ; 3. Research Administration, Hackensack Meridian Hackensack University Medical Center, Hackensack, NJ.*

Background

Advance directives (AD) are critical for patient autonomy, especially in geriatric population. Despite the acknowledged importance completion rates in primary care settings are inadequate. This retrospective cohort study assesses the impact of a trainee-led initiative at Hackensack University Medical Center ambulatory geriatric practice on increasing AD completion.

Methods

In this initiative, trainees rotating in geriatrics were educated about completion of the advance directives. Geriatric patients who lacked documented ADs engaged in a brief discussion with medical students at the end of their routinely scheduled primary care visit in March 2023. The rate of AD completion captured over the next six months was compared between the initiative group and the

remainder of patients seen in the clinic. A logistic regression analysis was conducted to identify predictors of AD completion. We then compared the rate of AD completion between the initiative group and a control group matched 1:1 by age, the presence of cognitive impairment, and mood disorder.

Results

In the initiative group, 35% of patients completed AD, compared to 34% in the control group, with no significant difference observed (p=0.92). Logistic regression indicated that patients over 90 years old (OR 1.89, p=0.020) or had cognitive impairment (OR 1.35, p=0.039) were more likely to complete ADs. Males were less likely to complete AD (OR 0.69, p=0.014). In the propensity matched cohort, patients in the initiative had a higher likelihood of completing AD (initiative 35% vs. control 30%; p=0.005).

Conclusions

The initiative did not significantly alter AD completion rates in the studied geriatric population as a whole. However, this finding may reflect the positive impact overall of the additional changes made in clinical practice flow such as ACP completion reminders for providers and addition of ACP forms available in patients rooms during the six month follow up period. As age, gender, and cognitive status were significant predictors of AD completion, these insights can inform future interventions aimed at improving AD completion rates, suggesting a need for targeted approaches based on patient demographics and cognitive function.

A225

Non-pharmacologic interventions for behavioral and psychological symptoms of dementia in long term care residents

C. Y. Adewunmi, M. Gavaller. Emory University School of Medicine, Atlanta, GA.

Background: In long-term care (LTC) facilities, antipsychotic medications (APM) are commonly prescribed for residents with dementia who develop behavioral and psychological symptoms of dementia (BPSD). Given limited evidence for benefits and potential adverse effects of APM, including increased mortality in patients with dementia, there is a need for evidence-based non-pharmacological psychosocial interventions.

Methods: Utilizing existing evidence-based strategies, a six-week pilot intervention to determine the feasibility and success of a patient-centered behavioral plan in combination with nursing education was conducted in a single LTC facility. A convenience sample of 5 residents prescribed APM for treatment of BPSD was selected for intervention (3 females, 2 males, mean age 76.2). One-page behavioral fact sheets which included personal history, hobbies, triggers, and calming behavioral techniques were posted at the nurse station for easier access to staff. Multimodal interventions tailored to the resident were implemented, including but not limited to music therapy, stuffed animals therapy, family photos, and activities with the assistance of each unit's activity director. As a multipronged approach, nursing staff charged with regular care of the study patients (6 nurses, 2 CNAs) were provided education about dementia and evidence-based treatment options for BPSD. Pre- and post-knowledge assessments were then conducted to assess the effectiveness of dementia education.

Result: Two patients were initially weaned off APM but had to be resumed within 2 weeks due to relapse in adverse behavior. One patient was weaned off APM completely. At 6-week follow-up, use of APM was reduced in only one of the 5 patients (20%). A total of 8 nursing staff participated in the educational session and demonstrated a post-knowledge score of 89.2% (+ 10.7 pts increase) on the 5-item multiple-choice knowledge test.

Conclusions: This pilot quality improvement project supports evidence that non-pharmacological interventions, along with nursing education, can be a useful strategy to lower rates of APM use in LTC. However, since the reduction of APM was feasible in only

1/5 patients over the 6 weeks period, additional strategies such as iterative adjustments to behavioral plans, enhanced nursing education, and trials of alternative activities may be needed to achieve significant APM reduction.

A226

Focused Geriatric Protocol for Optimization of Comorbidities in a Safety-Net Clinic

E. S. Gonzalez.^{1,2} 1. Geriatrics, University of California Los Angeles, Los Angeles, CA; 2. Geriatrics, Harbor-UCLA Medical Center, Torrance, CA.

Background:

Health systems often emphasize targeting specific quality metrics for empaneled patients. As we age our blood pressure and Hemoglobin A1c (HbA1c) goals change and also personal preferences. Our goal is to develop a protocol that providers can use to help meet quality metrics in a population of older adults in a safety net healthcare system while ensuring those quality metrics are appropriate for the patients they serve.

Methods:

Empanelment data was obtained using Empaneled Life Management (ELM) tool to quantify quality metrics for two geriatric fellow's patient panels. This data was used to track both the baseline data and effectiveness of the protocol developed for managing two co-morbid quality measures of blood pressure (goal of <140/90) and HbA1c (goal <9%). Patients not at goal for either metric were identified and charts were reviewed for the following data: recent HbA1c, blood pressure and evidence of terminal illness or shortened life expectancy. A protocol was developed to account for these variables by lining out actions that providers can take. The second phase is to implement this protocol to improve quality metrics to meet the health system goals of >90% of patients meeting goals listed above.

Results:

ELM identified 138 patients in our geriatric fellow's panel. Of these patients, 12% were not meeting HbA1c goals and 23% were not meeting blood pressure goals. Data regarding the improvement in quality metrics achieved and the type of actions required to achieve this improvement will be reported as well as the number of quality metrics that were dismissed due to patient goals not being congruent.

Conclusions:

EMR tools, such as ELM, can help manage patient panels in underserved safety-net clinics with admirable population health goals. Implementation of this protocol has helped define higher risk geriatrics patients with an actionable intervention plan while providing personalized treatment goals in alignment with patient values.

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A227

Improving pain management of older adults admitted to an orthopedic service, a quality improvement project.

H. Tavares Santos, K. Suchman, A. Oyeyemi, R. Ortiz, R. Rosario, Y. Yamada. Geriatrics, Icahn School of Medicine at Mount Sinai, New York, NY.

Background:

Appropriate pain management in older adults is important to decrease the risk of hospitalization hazards and improve patient's outcomes. At our hospital, pain in geriatric orthopedic patients is managed by providers with no prior training in geriatric medicine.

To date, no clear institution wide pain management policy is in effect for geriatric patients. Based on observation from geriatricians working with the orthopedics team, we hypothesized that pain management in older adults is not optimal. The aim of this quality improvement (QI) project is to reduce potentially inappropriate prescribing of pain medications in this population.

Methods:

Baseline measures were obtained from interview with the orthopedics team, analysis of the inpatient pain management process, and chart review of patients admitted to the orthopedic service and followed by the geriatrics co-management team in August 2023. These data were evaluated by 3 independent geriatrics trained reviewers to determine if the patients' pain regimens were appropriate. A Pareto chart was used to elicit the main causes of inappropriate pain regimen selection, and to guide the intervention focus.

Results:

Chart review of 10 patients revealed average age was 79 years, 50% had major neurocognitive disorder, and all had an acute fracture requiring surgery during admission. The average length of stay (LOS) was 12 days; 60% had falls during admission. 70% of patients were judged to have inappropriate pain management ordered. The most common factors identified were use of standardized pain order set tailored to younger adults, lack of standing pain medication order, and new gabapentin prescription. Lack of knowledge and training in geriatrics were reported during provider interview.

Conclusions:

Our data suggests that provider education about geriatric medicine and pain management is key to decreasing the prescription of inappropriate pain medications to older adults. In partnership with the orthopedics team, the next phase of our QI project will consist of developing an educational intervention and pain management pocket cards, and updating the hospital admitting note template to include pain as a medical problem that must always be addressed.

We expect this intervention will result in a decrease in inappropriate pain management which may positively impact patients' outcomes, LOS, and risk of falls.

A228

Transitional Care Management (TCM) and improving the post discharge appointment rate of recently hospitalized older adults

Y. Shindo, M. Sanon, G. Perez-Benzo, J. Cescon, R. N. Taniguchi, K. Pouching, S. Banker, S. Baharlou, D. Coyne. *Geriatrics, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Transitional Care Management (TCM) plays a crucial role in ensuring the safe discharge of older hospitalized patients. Establishing a close follow up appointment with their Primary care physician (PCP) after discharge is vital to mitigate post-discharge complications and potential readmissions. However, there have been several instances where high-risk patients have missed their scheduled PCP appointments.

Methods: All the admissions to our health system from May 1st to May 31st, 2023, were searched, and 54 geriatrics patients who have established PCP with the geriatrics department were identified. 15 cases were excluded through the chart review (3 missed triage, 2 expired, 7 transferred to different hospitals, 1 duplicate, 1 admission to Hospital at Home, and 1 pall care consult). The remaining 39 comprised 15 cases that were taken care of by the geriatrics inpatient team and 24 cases that were followed by the consultation geriatrics team. A chart review was conducted to assess the completion of post-discharge communication with the PCP and patient (post-discharge phone call). Also, cases were evaluated to see if they had post-discharge appointments with PCP within 14 days.

Results: Both patient groups who were followed by the geriatrics team as primary and consulted had high post-discharge transition of care calls within 2 business days after the discharge (86.9 % and

85.7 %, respectively). For the patients who were discharged by the primary geriatrics team, 85.7% closed post-discharge appointments with geriatrics PCP within 14 days, whereas only 53% of patients who were discharged by the other specialists' team (followed by geriatrics consult team) had post-discharge appointments with PCP in 14 days.

Conclusions: The initial data showed lower rate of post-discharge appointment in those who were discharged by non-geriatrics teams. Chart review identified the lack of communication between the consult geriatrics team and the scheduling assistant. Focused inquiries to the schedulers identified the issues from the scheduler's side. Interventions including clarifying the pathway for expedited post-discharge appointments and education to the inpatient geriatrics providers are planned.

A229

Leveraging the Medical Record to Promote Advance Care Planning in Geriatric Primary Care

D. N. Arteaga, E. A. Nemytova, S. Ajmal. *New York University Grossman School of Medicine, New York, NY.*

Background: Primary care physicians (PCPs) routinely facilitate advance care planning (ACP) during clinic visits. Our urban, safety-net health system recently upgraded its electronic medical record (EMR) to facilitate ACP documentation. We sought to leverage this new EMR functionality to promote ACP completion by clinicians caring for older adults.

Methods: In this single-site quality improvement study, we executed a multi-step project to improve rates of ACP discussion and documentation at a geriatric primary care clinic. Over a series of staff meetings, we shared clinic-specific ACP statistics, described the upgraded ACP functionality within the EMR and introduced a comprehensive ACP Note template that included required elements for billing ACP services. To mitigate concerns around time constraints, we encouraged clinicians to schedule patients for dedicated ACP visits. Paper health care proxy (HCP) forms were stored in exam rooms. Over 11 months, we measured the incidence of new ACP Notes using an easily searchable note type included in the recent EMR upgrade.

Results: Between January 1 and November 30 of 2023, 7 different PCPs documented 35 ACP Notes for 34 unique patients. None of these patients had ACP previously documented in a dedicated note. ACP Notes documented 18 new HCP assignments, 2 changes in code status and 1 medical order for life-sustaining treatment (MOLST). 9 of 35 (26%) ACP Notes were created during dedicated ACP visits. 30 of 35 (86%) ACP Notes were written by the patient's usual PCP. The average patient age was 80 years (range 70-99 years). 17 (50%) were female. Visits were conducted in 8 different languages of which Spanish (46%) and English (37%) were most common.

Conclusion: New EMR functionality provided a unique opportunity to mobilize PCPs to perform ACP in a safety-net geriatric primary care clinic. Clinicians utilized dedicated ACP visits and executed numerous new HCP assignments. Discussions of code status and completion of MOLSTs were uncommon. More research is needed to clarify optimal methods for promoting ACP in primary care settings.

A230

Scheduled Bowel Regimen for Constipation Prophylaxis in an Acute Care for the Elderly Unit: A Needs Assessment

N. Karthikeyan,¹ K. Zietlow,¹ S. Berriman,² K. Salisbury.¹
1. *University of Michigan Michigan Medicine, Ann Arbor, MI;*
2. *Trinity Health, Ann Arbor, MI.*

Background

Constipation is a common problem during hospital admission for elderly patients. This condition negatively affects patients' quality of life during admission and is associated with increased length of stay and hospital costs. A retrospective analysis of elderly patients admitted for heart failure exacerbation showed that patients with pre-existing

constipation had a shorter length of stay when given constipation prophylaxis.¹ We assessed the incidence of constipation and associated complications in an acute care for the elderly (ACE) unit.

Methodology

We randomly sampled adults aged 65 years or older who were discharged from an ACE unit within the past 30 days and performed a retrospective analysis. Patients were excluded if they were admitted for gastrointestinal (GI) disease. Data was collected to assess the incidence of constipation, the rate of rescue medication orders, and associated complications, including the incidence of delirium, ileus, small bowel obstruction, urinary tract infection, and urinary retention.

Results

Twenty-five older adults were randomly sampled. Three patients were excluded due to GI diseases. Of the eligible twenty-two patients (mean age of 78, with a range of 65 – 93), acute decompensated heart failure, falls, and syncope/pre-syncope were the most common admitting diagnoses. Nineteen patients did not have a bowel movement for at least two days. The mean number of consecutive days without a recorded bowel movement was 2.7 days, ranging from 0 to 7 days. Nine patients required rescue therapy, with polyethylene glycol, sennosides, and bisacodyl suppository as the most commonly ordered medications. Complications that occurred during hospital admission included urinary tract infections (n=2), delirium (n=2), and ileus (n=1).

Conclusion

This analysis demonstrates that constipation occurred frequently and was managed inconsistently in patients admitted to our institution's ACE unit. This data highlights the need for consistent bowel prophylaxis when admitting older adults to acute care settings. This data can also inform future quality improvement initiatives.

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A231

Addressing the 4Ms: What “Matters Most” Matters! A Quality Improvement (QI) Project

K. C. Aseme,¹ S. Ali,² A. Khater,³ M. Towfig,¹ M. Mastoi,³ D. P. Singh,³ P. Murakonda,¹ A. Lebelt,¹ R. O’ Russell,¹ T. Dharmarajan.¹ 1. *Geriatric Medicine, Montefiore Wakefield Campus, New York, NY*; 2. *Geriatrics, Montefiore Health System, Bronx, NY*; 3. *Geriatric Medicine, Montefiore Medical Center, New York, NY*.

Background

Age-Friendly Health Systems use 4 evidence-based elements (4Ms: Matters Most, Medications, Mentation, Mobility) to enhance quality of care of older adults. The initiative is gaining momentum, being introduced in health care centers. Our QI project addressed the “What Matters Most” component of 4 Ms because it is a seldom addressed factor in clinical practice.

Methods

Our QI project was conducted by fellows in geriatric medicine from September to November 2023 in 2 nursing homes (NH), hospital (H) and geriatrics clinic (C) in the Bronx, under attending faculty geriatrician supervision. Data was collected and entered in a tool; analysis performed with SPSS software. Of 224 patients, 24 had incomplete data, 200 were analyzed.

Results

Age 51-97 yrs; 63% Female (F), 37% Male (M); 40% C, 27% H, 33%NH. Whites (49, 24.5%); Blacks (91, 45.5%); Hispanic (40; 20%); Other (20, 10%).

Responses to “What Matters Most” measured as Yes (Y) or No (N).

Conclusions

Our project confirms the importance of What Matters Most, as a significant component of the 4Ms concept

What Matters Most was addressable in 26% of our patients. What mattered most overall in the study group was food (129 of 200; 64.5%).

By location: In hospital, food mattered most (40 of 55); in clinic, family (46 of 81); in the nursing homes music mattered most (57 of 64).

		50-60	61-70	71-80	81-90	91-100	M	F	C	H	NH	Total
Physical Activity	N	1 (0.5)	23 (11.5)	42 (21)	42 (21)	16 (8)	30 (23)	74 (37)	37 (18.5)	44 (22)	43 (21.5)	124 (62)
	Y	5 (2.5)	20 (10)	31 (15.5)	14 (7)	6 (3)	23 (11.5)	53 (26.5)	44 (22)	51 (25.5)	11 (5.5)	76 (38)
Recreation	N	3 (1.5)	16 (8)	32 (16)	24 (12)	12 (6)	38 (19)	51 (25.5)	46 (23)	27 (13.5)	14 (7)	87 (43.5)
	Y	3 (1.5)	27 (13.5)	41 (20.5)	32 (16)	10 (5)	37 (18.5)	76 (38)	35 (17.5)	28 (14)	50 (25)	113 (56.5)
Medications	N	4 (2)	28 (14)	42 (21)	40 (20)	16 (7.5)	47 (23.5)	82 (41)	34 (17)	15 (7.5)	31 (15.5)	129 (64.5)
	Y	2 (1)	15 (7.5)	31 (15.5)	16 (8)	7 (3.5)	28 (14)	49 (24.5)	13 (6.5)	25 (12.5)	33 (16.5)	71 (35.5)
Food	N	2 (1)	12 (6)	24 (12)	22 (11)	11 (5.5)	28 (14)	43 (21.5)	39 (19.5)	15 (7.5)	17 (8.5)	131 (65.5)
	Y	4 (2)	31 (15.5)	49 (24.5)	34 (17)	11 (5.5)	84 (42)	45 (22.5)	42 (21)	40 (20)	47 (23.5)	129 (64.5)
Music	N	3 (1.5)	15 (7.5)	23 (11.5)	18 (9)	11 (5.5)	15 (7.5)	19 (9.5)	19 (9.5)	12 (6)	7 (3.5)	70 (35)
	Y	3 (1.5)	29 (14)	50 (25)	38 (19)	11 (5.5)	21 (10.5)	88 (44)	42 (21)	15 (7.5)	9 (4.5)	130 (65)
Movies	N	2 (1)	19 (9.5)	33 (16.5)	26 (13)	15 (7.5)	48 (24)	74 (37)	47 (23.5)	35 (17.5)	13 (6.5)	95 (47.5)
	Y	4 (2)	24 (12)	40 (20)	30 (15)	7 (3.5)	27 (13.5)	58 (29)	34 (17)	20 (10)	15 (7.5)	105 (52.5)
Alcohol	N	5 (2.5)	34 (17)	66 (32.5)	50 (25)	18 (9)	135 (67.5)	112 (56)	70 (35)	49 (24.5)	26 (13)	172 (86)
	Y	1 (0.5)	9 (4.5)	8 (4)	6 (3)	4 (2)	30 (15)	36 (18)	11 (5.5)	6 (3)	11 (5.5)	28 (14)
Family	N	2 (1)	19 (9.5)	32 (16)	29 (14.5)	12 (6)	41 (20.5)	63 (31.5)	35 (17.5)	25 (12.5)	34 (17)	94 (47)
	Y	4 (2)	24 (12)	41 (20.5)	27 (13.5)	10 (5)	32 (16)	37 (18.5)	23 (11.5)	30 (15)	30 (15)	106 (53)
Health	N	3 (1.5)	22 (11)	46 (23)	41 (20.5)	16 (8)	61 (30.5)	86 (43)	54 (27)	39 (19.5)	12 (6)	126 (63)
	Y	3 (1.5)	21 (10.5)	27 (13.5)	15 (7.5)	6 (3)	31 (15.5)	41 (20.5)	27 (13.5)	17 (8.5)	19 (9.5)	72 (36)
Travel	N	5 (2.5)	38 (19)	60 (30)	50 (25)	21 (10.5)	62 (31)	112 (56)	72 (36)	48 (24)	30 (15)	174 (87)
	Y	1 (0.5)	6 (2.5)	13 (6.5)	6 (3)	1 (0.5)	11 (5.5)	15 (7.5)	9 (4.5)	6 (3)	5 (2.5)	26 (13)
Other	N	5 (2.5)	26 (13)	38 (19)	30 (15)	13 (6.5)	42 (21)	79 (39.5)	44 (22)	25 (12.5)	11 (5.5)	112 (56)
	Y	1 (0.5)	17 (8.5)	35 (17.5)	26 (13)	9 (4.5)	31 (15.5)	57 (28.5)	37 (18.5)	30 (15)	21 (10.5)	88 (44)
Addressed?	N	5 (2.5)	30 (15)	56 (27.5)	39 (19.5)	19 (9.5)	54 (27)	94 (47)	64 (32)	35 (17.5)	49 (24.5)	148 (74)
	Y	1 (0.5)	13 (6.5)	18 (9)	17 (8.5)	3 (1.5)	19 (9.5)	33 (16.5)	20 (10)	15 (7.5)	8 (4)	52 (26)

A232

Improving Palliative-Hospice Care for Older Veterans Admitted to the Intensive Care Unit through Interdisciplinary Team Management.

L. Gonzalez,^{1,2} T. A. Tyrell,^{3,2} E. Gayle,² M. Bharadwaj,² S. Discala,² M. Silverman,² L. Lit.² 1. *Medical Education, Florida Atlantic University, Boca Raton, FL*; 2. *Medical Education, West Palm Beach VA, West Palm Beach, FL*; 3. *Florida Atlantic University, Boca Raton, FL*.

The average age of ICU patients is rising, with many having multiple comorbidities and increased mortality risk. Geriatric patients require a comprehensive approach considering functional outcomes, morbidity, and goals of care beyond mortality. Early discussions about care goals are crucial for timely transitions to palliative hospice care, avoiding futile interventions, and reducing healthcare resource utilization. A quality improvement (QI) project at West Palm Beach Veterans Affairs (WPB VA) Administration Hospital aimed to ensure early Palliative Hospice Care (PHC) for Veterans in the ICU through collaboration between Geriatrics, Hospice, and ICU services.

Data collected from January 2021 to October 2023 for Veterans aged 60+ admitted to the ICU and receiving PHC included demographics, diagnoses, ICU admission, consult and death dates, and consult details. Participants comprised 164 Veterans (7 women, 157 men, average age 78). The three most common diagnoses were cancer, dementia, and COVID-19 (71.9%). The average time from ICU admission to PHC was 7.6 days (range: 1-60 days, mode: one day). 65.2% of consults were requested within five days of admission, and 39.1% of Veterans died within two days, with 31.1% having cancer or dementia.

The study reveals solid communication between the ICU team and hospice/geriatric medicine. Despite this, areas for improvement were identified, leading to the implementation of an innovative model. Weekly rounds now involve both palliative and geriatric medicine with the ICU team, aiming to enhance collaborative care for geriatric Veterans in the ICU.

A233

Change in Lecanemab Opinion with Community Education

M. A. Mann,¹ K. Hager,¹ J. Elliott,² S. Garrett.¹ *1. Geriatrics, OhioHealth, Columbus, OH; 2. Research Institute, OhioHealth, Columbus, OH.*

Background: To date, studies are lacking regarding public opinion of lecanemab, or any educational intervention to inform the public about this new therapy. The primary outcome studied was the interest and understanding before and after an educational presentation designed to inform the community of the mechanism, risks, and benefits of lecanemab, the newest of the Anti-amyloid monoclonal antibodies^{1,2} to treat Alzheimer's dementia (AD).

Methods: A seven-question, visual analogue scale (0-98 mm), survey was designed to measure attitudes, opinion and knowledge regarding lecanemab prior to and following an educational presentation; the level of interest in receiving these medications was a focus. Descriptive statistics and paired two-sample t tests were conducted.

Results: Twenty community members attended the presentation, 18 completed the survey. The group was 94% female, 50% were > 60 y/o, ~ 90% were college educated and reported knowing someone living with AD. The mean (standard deviation) post rating of understanding benefits of lecanemab therapy was 76.3 (18.3) was significantly greater than prior to the educational session 30.4 (28.8), $p < 0.001$. This was similar for understanding risks 83.0 (8.5) vs 32.3 (30.4), $p < 0.001$; time commitment of therapy 87.4 (7.8) vs 24.4 (22.1), $p < 0.001$; and mechanism of action 74.6 (19.6) vs 21.9 (24.5), $p < 0.001$. Respondents were also more likely to recommend a loved one with memory problems ask their doctor about treatment 59.8 (32.7) vs 46.0 (27.8), $p = 0.047$.

Conclusions: Although this study is limited to 20 participants at a single event, our findings suggest a brief educational presentation designed to inform the public about lecanemab therapy can significantly increase understanding of the benefits, risks, time commitment and mechanism of action of lecanemab. This educational model may be utilized in the future to aid in educating patients as new therapies develop.

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A234

Improving controlled substance prescribing practices during hospital to skilled nursing facility care transitions.

E. A. Andrade, M. Turner, H. Tran, V. Wong, S. Leonard. *Geriatrics, University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA.*

Background: Care transitions between hospitals and skilled nursing facilities (SNFs) can lead to medication reconciliation errors which place patients at risk for delayed care delivery. Due to stricter regulations, controlled substances (C2s) are common culprits for prescribing errors in our healthcare system. By utilizing quality improvement principles such as process mapping and Gemba walking, we identified operational breakdowns in prescribing practices and implemented high-impact, low-effort interventions to improve workflow, avoid delays in delivery of C2s, and enhance patient satisfaction.

Methods: During our first PDSA cycle, we performed a pre-intervention self-reported retrospective 5-point likert scale survey of nursing staff to quantify their experiences responding to patient dissatisfaction from delays in C2 prescriptions. We implemented a multifaceted intervention that included a brief physician training session, a step-by-step illustrated user manual, and an updated call log to remind on-call physicians, SNF providers, and trainees about common

prescribing errors. During our second PDSA cycle, we will perform a two-month post-intervention self-reported retrospective survey of nursing staff.

Results: A total of 15 out of 20 available nursing staff completed the pre-intervention survey. On average nurses observed patient dissatisfaction from delayed C2s on "more than half" of their work days. Following implementation of our intervention, feedback from our physician group was gathered to identify areas of improvement which will be implemented on a rolling basis.

Conclusions: Discharges from hospital to skilled nursing facilities create potential for medication-related errors and C2 prescription delays. A standardized approach using quality improvement principles can help identify interventions to resolve operational breakdowns. We hypothesize that our interventions will improve nursing staff experience and reduce patient dissatisfaction related to medication delays.

A235

Decreasing Skilled Facility Utilization in Geriatric Surgical Oncology Patients

J. Abi Chebl,¹ L. Vognar,^{1,2} L. Khoury,¹ R. Kaler.¹ *1. Geriatrics, Roger Williams Medical Center, Providence, RI; 2. Brown University, Providence, RI.*

Background: Cancer is a common diagnosis among adults above the age of 65. Cancer care for the older adult differs from standardized care for the younger population. Geriatric patients are vulnerable to geriatric syndromes. Determining the appropriate transition of care (TOC) setting for the geriatric surgical oncology patient is crucial, as these patients remain at risk for increased symptom burden and adverse outcomes. Roger Williams Medical Center (RWMC) is a community hospital in Rhode Island with an established Geriatric Surgical Oncology department, that has been using an example of a TOC program to optimize discharge planning and transitioning to appropriate care settings. The aim is to showcase the role of a TOC program called Care at Home in decreasing skilled nursing facility utilization in vulnerable geriatric surgical oncology patients.

Methods: All patients referred to the surgery oncology clinic at RWMC who underwent surgery were evaluated for the TOC program Care at Home, starting January 2023. Patients were followed up at home postoperatively by the geriatric fellow and assessed at the following time intervals: immediate post-op visit, 3 months, 6 months, and 9 months. Assessments used included Mini Nutritional Assessment (MNA) and quality of life and patient satisfaction using EQ-5D-5L questionnaire. Outcomes measured included pain control, readmissions, emergency room (ER) visits, utilization of hospice and palliative care services, and admission to skilled nursing facility for postop care.

Results: Of the geriatric surgical oncology patients who underwent surgery, a total of 6 patients were referred to the Care at Home program from January 2023 to October 2023. Out of the 6 patients referred, none of the patients were admitted to skilled nursing facilities for postop care. 1 patient was readmitted to the hospital for pulmonary embolism and 1 patient was readmitted to the ED for urinary retention. All patients reported adequate pain control during all postop visits. No hospice or palliative referrals were placed.

Conclusion: TOC programs may have a vital role in decreasing SNF utilization for postoperative care, improving outcome measures such as pain and quality of life indicators, and possibly reducing ED visits and hospitalizations in vulnerable geriatric surgical oncology patients.

A236

Deprescribing Donepezil in the Nursing Home Setting: Progress and Challenges

E. Donnelly, S. Margosian, J. Nazroo, R. Begum, V. Nwagwu, J. Beal, E. Diviney Chun. *Division of Geriatric and Palliative Medicine, University of Michigan Michigan Medicine, Ann Arbor, MI.*

Background

Cholinesterase inhibitors (ChEIs) are an approved treatment for certain types of dementia. However, the clinical significance of cognitive gains from ChEIs has been questioned and there is uncertain long-term benefit, especially once dementia has progressed to requiring nursing home (NH) level of care. Furthermore, ChEIs have significant side effects. The objective of this study is to identify the prevalence of ChEI use among NH residents and to safely deprescribe these medications in residents without a clear indication. While the primary aim was to decrease pill burden, secondarily we looked at barriers to deprescribing.

Methods

A plan-do-study-act approach was used to identify and deprescribe ChEIs. Of 70 total residents in a NH in Southeast Michigan, 11 (15.7%) were prescribed ChEIs; all were prescribed donepezil. Of this group, seven residents or their surrogates consented to the study, one was hospitalized prior to consent and three declined to participate.

Donepezil was tapered per validated protocol with plan for further taper at four weeks. Residents were monitored at two weeks with plan to continue at regular intervals.

Results

In the study sample of seven residents, three had diagnosis of unspecified dementia, three Alzheimer’s and one Parkinson’s disease dementia. Mean age was 87. Four of seven were female. All identified as White. Median number of activities of daily living (ADL) requiring assistance was five (out of six ADLs) for participants.

ChEIs were tapered for five residents and stopped for two residents per protocol. At two weeks, no new behavioral issues were reported. Patients will be monitored with plan to discontinue ChEIs for all participants at week four.

Conclusions

This study demonstrates the feasibility of a ChEI deprescribing protocol in NHs. Limitations included small sample size. Barriers included: interdisciplinary disagreement on a standardized cognitive assessment tool, subjective criteria to assess ChEI effectiveness, and a COVID-19 outbreak. Given the prevalence of ChEI use in the NH, further studies on deprescribing in this setting can help identify barriers to implementation and define which residents will benefit from this intervention. More research is needed to guide providers as well as patients and caregivers through this complex process.

A237

Screening for Hypertension in a Healthy Cohort at a Hospital Community Fair Is Fruitful: A QI project

S. Ali, M. Towfig, M. Mastoi, D. Vyas, P. Dansoh, P. Murakonda, T. Dharmarajan. *Geriatrics, Montefiore Medical Center, New York, NY.*

Background

Normal blood pressure (BP) based on the 2017 guidelines is below 120/80 mm Hg. Prevalence increases with age and is over 50% in those over 70 years. Community fairs serve as a platform for health promotion, BP screening and counseling on lifestyle factors and management of hypertension.

Methods

A QI project was conducted by geriatric medicine fellows, nurses and geriatricians at a Bronx community fair hosted by an academic teaching hospital on September 13, 2023. Community adults were screened for hypertension and provided counseling on lifestyle / medications. A tool was utilized to gather data, entered in an Excel file and results presented in table format.

Conclusion

⇒ In the community cohort, 29 of 80 were aware of the diagnosis of hypertension (HTN); 8 were unaware of the diagnosis.

⇒ Both groups were receptive to counseling (diet, physical activity, medications) irrespective of comorbidities.

⇒ Community fairs provide a perfect platform to screen and counsel for HTN.

		Variables	
Sex, n (%)		Mean Age (yr)	59
MF	25 (31) / 59 (85)		
Race, n (%)		Comorbidities, n (%)	
African-American	44 (55)	Nause	57 (71)
Hispanic	20 (25)	T2DM/Pre-DM	8 (10)
White	9 (11)	CAD	2 (3)
Other	7 (8)	ILD	2 (3)
		Thyroid Disorder	4 (5)
Marital Status, n (%)		Salt Restriction, n (%)	
Single	28 (35)	Y/N	29 (31) / 51 (64)
Married	45 (56)	Salt Free Diet, n (%)	
Divorced	7 (9)	Y/N	2 (3) / 78 (98)
Widowed	0 (0)		
Education, n (%)		Fruit/Veggies, n (%)	
Elementary	2 (3)	Y/N	75 (94) / 5 (6)
High School	29 (36)		
College	46 (58)	Physical Activity, n (%)	
Post Graduate	3 (4)	Y/N	58 (73) / 22 (28)
HTN Diagnosis, n (%)		On meds for HTN, n (%)	
Y/N/Unknown	29 (36) / 43 (54) / 8 (10)	ACEI/ARB/BB/CCB	3 (4) / 3 (4) / 3 (4) / 0 (0)
If yes, duration in years (yr)	11.1	None	56 (70)
If yes, average home reading systolic diastolic	126/76	Does not recall	3 (4)
		Multiple	4 (5)
Has Device at home, n (%)		Adherence to meds, n (%)	
Y/N	31 (39) / 49 (61)	Y/N/Not Applicable	55 (69) / 3 (4) / 22 (28)
Average BP 1 systolic diastolic	126/76	Perception of Health, n (%)	
Average BP 2 systolic diastolic	128/80	Good/Fair/Poor	37 (46) / 11 (14) / 0
		Receptive to diet, n (%)	
		Y/N/N/A	46 (58) / 2 (3) / 32 (40)
		Receptive to physical activity, n (%)	
		Y/N	78 (98) / 2 (3)
Smoker, n (%)		Comorbid, n (%)	
Never	72 (90)	Y/N	100/0
Past	8 (10)		
Current	0 (0)		

Results

A238

PCV-20, CDC says yes!

M. H. Bogin, A. Stantz, B. C. Sohn, M. Mendoza, K. McKenzie, B. Verdoorn. *Community Internal Medicine, Mayo Clinic Minnesota, Rochester, MN.*

Background: Skilled Nursing Facility (SNF) residents are at increased risk for invasive pneumococcal disease (IPD). Pneumococcal vaccines reduce the risk of IPD. Following approval of two new vaccines in 2021, including pneumococcal 20-valent conjugate vaccine (PCV-20), the Centers for Disease Control and Prevention (CDC) updated guidance so that adults aged 65 and older are optimally protected from IPD.

Objective/Aim: This quality improvement project was initiated to review current pneumococcal vaccination status of the residents of two SNFs and develop a standardized workflow to enhance PCV-20 vaccination rates for new and established residents. In current residents who did not complete the pneumococcal vaccine series, we aim to increase the completion rate to 95% in 6 months. In current residents with a completed vaccine series, we aim to increase the completion rate of the PCV-20 booster vaccination from 1% to 25% in the next 6 months. In new residents being admitted to the facilities, we aim to administer the PCV-20 vaccination to 95% of those who meet criteria for PCV-20, whether to complete the vaccination series or as a booster, over the next 6 months.

Quality Improvement Methods: This project, led by an interprofessional team at one rural and one urban SNF in southeast Minnesota, addressed a critical gap in awareness about PCV-20 vaccine. We established a physician-independent workflow for SNF staff to assess vaccine eligibility for new and existing residents. This initiative included creating educational materials for staff and residents. We also updated facility standing orders to reflect current guidelines, enabling staff to independently evaluate eligibility, order and administer the vaccine.

Results: We reviewed 117 resident records. In the rural SNF, we found an 83.3% completion rate for the pneumococcal vaccination series; zero individuals had received PCV-20. In the urban SNF, 85.7% of patients were vaccinated with PCV13, and 90.5% had received the PPSV23 vaccine. Before our intervention, 1 out of 117 residents

received the PCV-20 vaccine. A PCV-20 vaccination day is now established at the rural facility and is being planned for the urban SNF.

Conclusions: Implementing a simplified, interprofessional guided care model that includes structured reviews, updated facility orders, and educational materials could significantly boost vaccination rates in these settings.

A239

Impact of the Patient Dignity Question in Geriatric Inpatient and Skilled Nursing Facility Settings

L. M. Nash, K. Leman. *UPMC, Pittsburgh, PA.*

Background: The Patient Dignity Question (PDQ), “What do I need to know about you as a person to give you the best care possible?” addresses what matters most to patients.¹ In one study, Palliative care patients were asked the PDQ and health care providers (HCPs) were surveyed and found that the PDQ elicits personhood and improves HCP job satisfaction.² In 2020, we thematically analyzed our Geriatric Care Center patients’ PDQ responses and then surveyed those patients in 2022 about their perceptions.^{3,4} In this project phase, we surveyed HCPs about their experience asking Geriatric patients the PDQ in various settings.

Methods: Hospitalized and skilled nursing facility (SNF) Geriatric patients were asked the PDQ by HCPs during fall 2023. The responses were documented after admission. HCPs completed a 12-question Likert survey and open-ended questions to investigate the impact of asking the PDQ. Surveys were completed by hand or online. Likert scales were analyzed with descriptive statistics.

Results: By November 2023, 75% of respondents were MD/DO. Overall, HCPs reacted positively and agreed they learned something new and were emotionally affected by the patients’ responses. PDQ influenced rapport. HCPs had mixed responses about trouble with PDQ documentation. One open-ended response highlighted that the PDQ built an essential bridge between a provider and patient. We anticipate survey respondents will demonstrate increased empathy as the PDQ helps providers understand what matters most.

Conclusions: HCPs shared positive experiences asking Geriatric patients the PDQ in a hospital and SNF. Majority of survey respondents reported that the emphasis on dignity enhanced rapport. PDQ improves the provider-patient relationship in various Geriatric settings. Further exploration could investigate a tool to ease PDQ documentation.

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A240

Baseline prevalence of delirium in hospitalized older adults on medical/surgical floors at PPMC and validity of nursing assessment of delirium using the Confusion Assessment Method

J. Schmoyer,¹ M. Simone,^{1,2} K. Miller,² A. Arastu,^{1,2} L. Triantos.²
 1. *University of Pennsylvania, Philadelphia, PA;* 2. *Penn Presbyterian Medical Center, Philadelphia, PA.*

Background:

Delirium is a common and severe problem for hospitalized older adults, with occurrence rates of 14% to 56%. However, delirium often goes unrecognized with only about 12-35% of cases identified

during routine care. As part of a new delirium screening pilot at our institution, all patients 65 years of age and older on two medical and surgical units are being screened for delirium by nurses using the Confusion Assessment Method (CAM).

Our objectives are to:

1. Measure the prevalence of delirium in patients 65 years and older using a representative sample on four medical and surgical units at our institution
2. Compare the findings of the nursing CAM assessment to a trained CAM interviewer

Methods:

This is a single-center analysis of hospitalized patients aged 65 and older at Penn Presbyterian Medical Center (PPMC). A geriatric fellow will be trained in CAM assessment through a web module, literature review, and review of the “Short CAM” training manual. This trained delirium screener will perform the CAM through a structured interview of patients 65 and older on four medical and surgical units for a two-weeks period in January 2024. The four units represent a broad mix of hospitalized older patients (ACE unit, general medical unit, and 2 post-surgical units); two of these units are also the sites of the pilot nursing-based screening intervention.

RESULTS:

Based on ICD10 billing codes, the incidence of delirium at PPMC in fiscal year 2023 was 11.2% for medical/surgical patients 65 years and older. This likely underestimates the true prevalence of delirium. A trained assessor of delirium using the validated CAM tool will provide a more accurate assessment. We will compare findings to those of the nurses’ CAM assessments on the two pilot units to help identify any discrepancies. We will track outcomes for patients who screen positive for delirium by length of stay, discharge destination, discharge status, use of geriatric consultation services, and whether delirium is documented in the progress notes.

Conclusion:

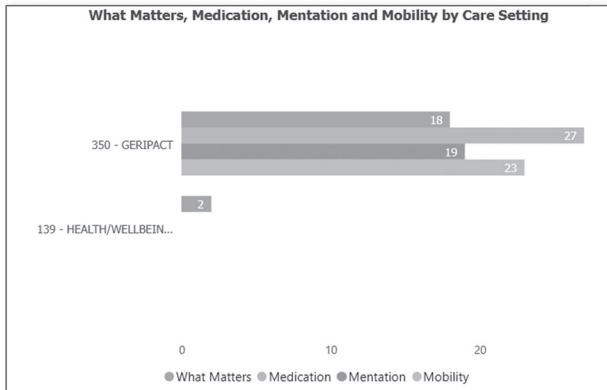
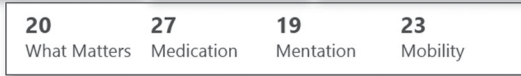
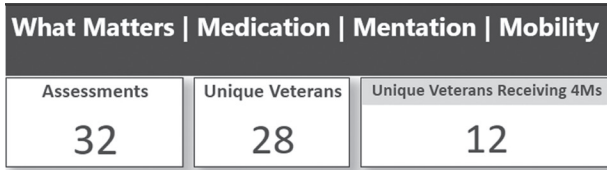
The collected data from this quality improvement project will better establish the true prevalence of delirium in older patients admitted to our institution. This will allow us to better assess the impact of future delirium prevention and management efforts.

A241 Encore Presentation

IMPLEMENTATION OF AGE-FRIENDLY PROCESSES IN A VA CLINICAL SITE

J. Bae. *Geriatric Medicine, University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA.*

Background: The Age-Friendly Health Systems initiative aims to enhance healthcare for individuals aged 65 and older by employing the 4Ms framework. In addressing the unique healthcare requirements of our population at the VA Sepulveda outpatient clinic, we have initiated implementation of the framework. This implementation serves as a structured guide during patient visits, facilitating a comprehensive assessment of individual needs. Our initiative ensures a patient-centric approach, recognizing and incorporating the distinctive aspects of each veteran’s health profile into their personalized care plan. **Methods:** The 4Ms dataset was collected from CPRS information via VA. A retrospective study was used for before and after implementation of the Age-friendly health systems recommendation of addressing 4Ms. The intervention was started on 10/2023. The pre-intervention data is from 4/2023-5/2023. The post-intervention data is from 10/2023. A 1-point was given per M that was addressed during the visit. T-test was performed via Stata MP 14.1. **Results:** Total sample size was 56 patients. Mean M score of the pre-intervention group was 2.781 (SD= 1.0697). Mean M score of the post-intervention group was 3.916 (SD= 0.2823). T score of -5.059, p<0.001. **Conclusion:** Our initial data suggests that the intervention we have implemented per AFHS to better address 4Ms in the geriatric clinic has shown to be impactful. Further data gathering and analysis will follow.



A242
Post-Acute Care for High-Risk Patients Through a Home Care Coordination Program: Outcomes at Six Months Follow-up.
 A. Bhukhen,^{1,2} F. Kamal,^{1,2} S. Aguiar.² *1. UC Davis Health, Sacramento, CA; 2. Geriatric Medicine, VA Northern California Health Care System, Mather, CA.*

Background: The Home Care Coordination (HCC) program is an intensive, multidisciplinary, home-based transitional care model that enrolls patients for 4-8 weeks. Referrals to HCC are prompted by recurrent Acute Care Events (ACEs, i.e., hospitalizations and/or emergency department (ED) visits). HCC has proven to decrease ACEs while patients are participating in the program and at 30 days post discharge. This quality improvement (QI) study investigates the impact of HCC on ACEs at 6 months after discharge from the program.

Methods: This is a retrospective study of patients enrolled in the HCC program during the calendar year 2022. We did not exclude any patients, regardless of length of stay (LOS) in the program. We extracted data from CPRS (VA Electronic Health Record) and JLV (Joint Legacy Viewer, an integrated health record including VA, military, and most health systems in Northern California). Main outcomes were death, ACEs, or no ACEs. Other outcomes included enrollment in home based primary care (HBPC), LOS in HCC, type of ACE (ED vs hospitalization). Population descriptors were Care Assessment Need (CAN) score, age, gender, race, ethnicity and HCC site (Martinez, CA vs Sacramento, CA).

Results: In 2022, the HCC program admitted 149 patients. Within 6 months of discharge from HCC, 13% (19/149) of patients passed away, 64% (95/149) had an ACE and 23% (35/149) had no ACEs. Of the patients who had ACEs, 67% (64/95) had a hospitalization and 33% (31/95) had an ED visit. After discharge from HCC, 25% (37/149) continued to receive care through HBPC, but 78% (29/37) of these patients had ACEs. Most of the population was composed of elderly, white, males with 91% (136/149) over the age of 65, 67% (100/149) White/Caucasian and 95% (141/149) males. CAN score was >90 for 76% (114/149) of patients, reflecting high complexity. Of the 149 patients admitted to HCC in 2022, 78% (116/149) were enrolled for >30 days.

Conclusions: HCC was successful in reducing ACEs during participation in the program and at 30 days after discharge. However, this QI analysis indicates that ACEs increase again at 6 months post HCC discharge. Additionally, ongoing homecare through HBPC, post HCC discharge, may not reduce ACEs. Patients may benefit from a longer duration of enrollment in HCC and recurring goals of care discussions.

A243
Does the Cause of Cognitive Impairment Influence “What Matters?”

A. Flowers, S. Ouedraogo Tall. *Geriatric Medicine and Palliative Care, New York University Grossman School of Medicine, New York, NY.*

Background:

The first M of the 4Ms framework, “What Matters,” encourages providers to elicit healthcare goals from their patients to guide therapy. Implementation of “What Matters” has been studied in different healthcare settings. Recognizing both the unique challenges and the importance of evoking treatment preferences and priorities, we sought to identify and characterize what matters to patients living with Alzheimer’s Disease and other dementias.

Methods:

We asked patients seen at a tertiary memory center to write in their own words their answer to one of the suggested IHI *What Matter’s Toolkit* questions “What concerns you most when you think about your health and health care in the future?” We compiled these responses and used an inductive approach to identify emergent themes. For each theme, we looked at the distribution of responses by the etiology of the cognitive impairment including Alzheimer’s Dementia (AD), Vascular Dementia, Mixed Dementia, or Lewy Body Dementia/ Frontotemporal Dementia (LBD/FTD) as determined by chart review. We excluded patients unable to answer and those with normal age-related cognitive decline, severe dementia, or indeterminate diagnoses still awaiting further workup.

Results:

Between July to September 2023, 83 individuals were asked the “What Matters” question. 26 were excluded (6 normal age-related cognitive decline, 2 severe dementia, 11 indeterminate diagnoses, and 7 “no concerns” or unable to answer). 57 answers were recorded and grouped into themes. While 31.6% of respondents listed cognition as the primary theme, non-cognitive concerns were present in 63%. Of these, Other Health concerns 31.6%, Functioning Independently 12.3%, Family 8.7%, and Social Isolation, Place of Living, and Activities were 3.5%. Other isolated answers were “not being treated as an infant,” “having beautiful clothes,” and “being a better person.”

Conclusion:

At a memory center, “What Matters” to most patients was addressing their Non-Cognitive Concerns regardless of the etiology of their cognitive impairment. Our study underscores the importance of a multidisciplinary team including geriatricians for patient-centered dementia care aligned with patient preferences and priorities.

	AD N=16	Vascular N=9	Mixed N=28	LBD/FTD N=4	
Cognition (N=18)	6	3	8	1	
Non-cognitive concerns (N=36)	Other Health Concerns	2	4	10	2
	Functioning Independently	2	1	3	1
	Family	1	1	3	0
	Social Isolation	1	0	1	0
	Place of Living	2	0	0	0
Activities	1	0	1	0	
Other (N=3)	1	0	2	0	

A244 Encore Presentation

Hurricane Idalia: Long-term care residents - Smooth transition blueprint.

L. Gonzalez,^{1,2} T. A. Tyrell,^{1,2} M. Silverman,² R. Blondet,² M. Deepak,² S. Discala,² V. Belcher,² M. Bharadwaj,² I. Morris,² S. Varzala.² 1. Florida Atlantic University, Boca Raton, FL; 2. Geriatric Medicine Department, West Palm Beach, VA Community Living Center, West Palm Beach, FL.

On August 28, 2023, the West Palm Beach Veterans Administration Medical Center (WPB) had to accommodate 30 veterans who were relocated more than 200 miles from Bay Pines VA Medical Center (BP) due to Hurricane Idalia. To ensure a smooth transition, WPB established an executive leadership command center, transmitted medical record information, and ordered necessary supplies in advance. The veterans were assigned to pre-arranged rooms and received continued care by BP medical staff, negating the necessity for new health assessments. BP staff were given access to computer systems and fingerprinted for pharmacy access. Medication sheets were prepared, and initial medications were stocked, while food and beverages were provided. The pharmacy reviewed medication for all transfers before and during admission, and the minimum data set (MDS) was completed in real time for all 30 residents.

Despite some challenges, the plan was effective. One resident lacked access to O2 in their assigned room, and there were delays in obtaining Key Fob and Personal Identification Verification cards for access to rooms and facilities. MDS coordinators experienced pressure to complete assessments promptly, and BP staff experienced fatigue after an 8-hour shift followed by a 5-hour bus journey. Additionally, four residents had incomplete allergy reviews on admission. Oxygen tank regulators also presented issues and completing the Resident Assessment Instrument (RAI)/MDS was difficult due to the short stay, which impacted quality measures. The veterans were discharged back to Bay Pines on August 31, 2023, following a 48-hour stay. This experience serves as a valuable blueprint for both Veterans Administration (VA) and non-VA facilities facing similar challenges during natural disasters.

A245

An observational study of the effectiveness of FIT test as a risk stratification tool in frail patients presenting with anaemia, is the HAS BLED score appropriate in the frailty elderly population?

R. Rasheed,¹ M. Khatun.² 1. Chapel Street Surgery, Billericay, United Kingdom; 2. Imperial College London, London, United Kingdom.

Background:

Faecal-immunochemical-test is employed a screening tool for colorectal cancer. Our observational study examined the FIT in primary care as a risk stratification tool in frail patients.

Methods:

The records of 217 frail patients over a 24-month period were analysed. Patients with haematological indices of anaemia were offered FIT test to detect GI haemorrhage as part of assessment for selection for lower GI investigations. Patients were risk stratified based on FIT results based on the presence or absence of red flags. Patients who were FIT positive were referred for urgent lower GI endoscopy compared to those who were FIT negative were managed without bowel investigations unless there were red flags such as abdominal mass, changed bowel habits or family history of bowel cancer.

Results:

Of 217 patients over a 24-month period of these 42 patients (19.4%) were FIT positive. All of these (n = 42) underwent colonoscopy of which 9 were normal, 18 had colonic polyps, 12 had diverticulosis and 3 had CRC. Of the 42 FIT positive patients 16 were on direct oral anticoagulant (DOAC). Patients on DOACs and those on dual anti platelet agents were more likely to be FIT positive. We also found a positive correlation between higher frailty indices, HAS BLED scores and chronic kidney

disease, low creatinine clearance $r=0.68$, $p=0.001$. Despite the small numbers in this study the correlation is statistically significant.

Conclusion:

There is a statistically significant positive correlation of FIT positive and frailty indices with DOACs, dual anti-platelet agents, CKD, low creatinine clearance ($r=0.68$ and $p=0.001$). Following this the HASBLED scores increased hence our practices implemented an enhanced surveillance of monitoring these patients quarterly due to the increased risk. We advocate frailty indices should be in cooperated in the HAS BLED scores for improved patient safety.

A246

Introducing Advance Care Planning (ACP) at a Community Fair Is Rewarding: A QI Initiative

S. Ali, M. Towfig, M. Mastoi, D. Vyas, P. Dansoh, A. Herrera, P. Murakonda, T. Dharmarajan. Geriatric Medicine, Montefiore Medical Center, New York, NY.

Background

Advanced Care Plan (ACP) is poorly understood by patients and inadequately implemented by health care providers. ACP helps improve care at end of life in accordance with the patient's wishes, respecting autonomy. Barriers in implementing ACP exist. As a QI initiative, we attempted to introduce ACP at a community fair.

Methods

The project was conducted by geriatric medicine fellows, nurses and geriatricians at a Bronx community fair hosted by an academic teaching hospital on September 13, 2023. Community adults were assessed for their ACP status and provided education on ACP, with opportunity for implementation of Advance Directives (AD). A tool helped gather data, entered in an Excel file. Barriers and facilitators studied.

Conclusions

⇒ Barriers to implementing Advance Directives include insufficient knowledge (25%) and procrastination (3%), suggesting a need for targeted educational interventions.

⇒ Despite some having discussed AD with their PMD, a considerable number (45%) still lacks a directive, highlighting potential gaps in the conversion of discussions into actionable decisions.

⇒ These takeaways emphasize the importance of addressing knowledge gaps, converting discussions into actions, and tailoring interventions to demographic characteristics for successful Advance Directive implementation within the surveyed community.

Variables		
Sex, n (%)	Mean Age (yr)	59
M/F	25 (31) / 59 (65)	
Race, n (%)	Do you have a PMD, Y/N	74/6
African-American		
Hispanic	44 (55)	
White	20 (25)	
Other	9 (11)	
	7 (8)	34/46
Marital Status, n (%)	AD Completion, n (%)	
Single	Previously implemented	33 (41)
Married	Will implement later	34 (43)
Divorced	Implemented today	12 (15)
Widowed	Not interested	1 (1)
Education, n (%)	Familiar with HC decision rights	77/3
Elementary	Y/N	
High School		
College	Barriers, n (%)	
Post Graduates	Insufficient Knowledge	20 (25)
Has Directive	Would like to discuss with PMD	4 (10)
Y/N	Not enough time to discuss AD	8 (10)
35/45	Prefer doctor to make decisions	2 (3)
	Family will make decision without an AD	2 (3)
Hospitalized in last 5 years	Procrastination	2 (3)
Y/N	Lack of comfort with topic/physician	1 (1)
20/60		

PMD: Primary Medical Doctor, AD: Advance Directive, HC: Health Care

Results

A247

Reducing Inappropriate Opioid Use in Seniors in Oklahoma (RISE-OK) Study: Baseline data from primary care clinics

L. A. Jennings, J. Homco, L. Planas, W. Nsa, H. Gamble, T. VanWagoner, Z. Nagykaladi. The University of Oklahoma Health Sciences Center, Oklahoma City, OK.

Background: More research is needed to address chronic pain management challenges among older individuals, particularly in rural primary care. We implemented a multi-faceted chronic pain

management program tailored for adults ≥ 60 years in 30 Oklahoma primary care clinics from January 2022 to September 2023 using a 3-stage, modified stepped-wedge design with the primary study outcome of patient health-related quality of life. We present baseline data from participating clinics about pain management practices for older adults and goals for project participation.

Methods: We surveyed clinics at study enrollment to assess baseline pain management practices, prior QI experience, and their top 3 goals for project participation. Quality benchmarking and performance feedback, academic detailing, practice facilitation, and technology support were used to help clinics adopt QI strategies.

Results: Most clinics (57%) were small (1-5 clinicians), health-system owned (50%), located in rural communities (53%), and had experienced staff shortages in the last year (47%). Half (47%) participated in a CMS advanced payment model; 53% could check the state prescription monitoring site in their EHR; 30% could produce reports of patients prescribed opioids >90 days; and 30% had previously participated in an opioid management QI project. Most clinics (87%) ranked older adult pain management as a high priority (≥ 7 out of 10). Top goals for study participation were assessment of pain interference with life activities (53%), following guidelines for safer opioid prescribing (24%), addressing cognitive barriers in pain management (20%), increasing naloxone use (20%), and partnering with local organizations for services (20%). Care processes reported as rarely used by clinics included protocols for naloxone use (67%), partnering with local organizations (47%), social determinants of health screening (40%), team huddles (40%), and QI dashboards (40%).

Conclusions: Primary care clinics prioritized assessment of pain interference with daily activities, safe opioid prescribing, including naloxone use, and partnering with local service organizations to improve older adult pain care. Future analyses from the RISE-OK study will describe the impact of this clinic-based intervention on older adult and care quality outcomes.

A248

Delirium Quality Standard Implementation: An Interdisciplinary Quality Improvement Project – Gap Analysis Survey

T. Yogaparan,^{1,2} B. Delirium Working Group.^{1,2} 1. *medicine, Baycrest Health Sciences, Toronto, ON, Canada*; 2. *University of Toronto, Toronto, ON, Canada*.

Background: Health Quality Ontario (HQO), Canada, published seven quality standards addressing prevention, identification, and treatment of Delirium. We designed this pre-implementation survey to identify gaps in clinician knowledge and understanding of care practices as outlined in the Quality Standard, on the High Tolerance Rehabilitation (HTR) Unit at Baycrest. We will use this information to develop, implement and evaluate strategies to improve recognition and management of delirium on the unit.

Method: Using the HQO Standards as a guide, we created a survey with closed- and open-ended questions for staff regarding: knowledge, current practice and processes with respect to delirium, including risk factors, screening tools, detection, management, patient and caregiver education. A total of 26 staff, including nurses, allied health professionals and physicians on the HTR unit, completed the survey between Sept. 2022 and Feb. 2023. A thematic analysis of the open-ended survey responses was conducted using both inductive and deductive approaches.

Results: Several major themes were identified.

Risk Identification, Screening, Detection:

Challenges: insufficient knowledge regarding the full spectrum of signs and symptoms of delirium; difficulty identifying delirium if the patient's baseline is unclear; difficulty distinguishing delirium from dementia with BPSD; difficulty differentiating from other conditions that might have similar features to delirium, workflow challenges.

Enablers: training and resources for identifying delirium; increased communication with the inter-professional team; completion of the delirium checklist/screening tool; knowing the patient's baseline function to determine if there was a change.

Prevention, Management:

Challenges: communication between team members is challenging; unavailability of a designated location to communicate the care plan in the EMR; not being informed when patients have delirium; lack of team coordination to identify and develop a care plan.

Enablers: coordinated care plans for management of delirium; increased communication regarding delirium among the inter-professional care team.

Conclusion: The results informed the need for education and training, clear process for team communication, and development of coordinated care plans.

A249 Encore Presentation

Regulatory Compliance in 2021 Special Focus Facility Participants and Candidates

A. S. Rhodes,¹ T. V. Caprio,² S. Marrs,¹ T. Gendron,¹ L. B. Waters.¹ 1. *Virginia Center on Aging, Virginia Commonwealth University, Richmond, VA*; 2. *Medicine, University of Rochester Medical Center, Rochester, NY*.

Introduction and Objective

The Special Focus Facility Program is a resource-intensive quality improvement intervention reserved for the lowest-performing nursing facilities (NFs) in the United States. SFFs are subject to increased oversight and escalating penalties. Due to the intensive nature of the intervention, the number of SFFs is capped at 88 nationally. In addition to enrolled SFFs, there is a list of 435 Special Focus "Candidates" (SFFcs). SFFcs are similarly low performing to SFFs, but do not receive the SFF intervention. This research aimed to explore quality differences between 2021 SFFs and SFFcs.

Design and Methodology

NFs designated as an SFF or SFFc in 2021 were analyzed using data from the Medicare archives. To ensure the independence of observations, facilities that switched between SFF and SFFc status were excluded. Using linear modeling, t-tests, and chi-square testing, SFF (n=54) and SFFc (n=194) were compared on various compliance and quality factors. The covariates were case-mix staffing, number of residents, and ownership structure.

Results

There were no significant differences between SFFs and SFFcs in the average resident census or number of certified beds in the NF. Compared to the national population, for-profit nursing facilities were over-represented in both the SFF group (n=51, 94%) and SFFc group (n=168, 86%). SFFs had more favorable Case-Mix staffing (Mean=3.18 HPRD) than SFFcs (Mean=3.11 HPRD), $\{t(979.94) = 4.60, p < 0.001, 95\% \text{ CI } [0.04, 0.09]\}$. When analyzing compliance, SFFs had fewer infection control citations $\{F(7,2543)=26.93, p<.001\}$, adjusted $R^2=0.06$ and lower overall weighted health survey scores $\{F(7,2543)=24.7, p<.001\}$, adjusted $R^2 = .06$. SFF had more substantiated complaints $\{F(7,2543)=51.36, p<.001\}$, adjusted $R^2=.12$, but significantly lower odds of abuse $\{\chi^2 = 6.41, p=.01 \text{ OR}=0.36\}$.

Conclusion/Discussion

SFFs and SFFcs are comparable samples because of the lack of compliance, similar census, and over-representation of for-profit facilities. While SFF status is significant, the low R^2 implies that many other factors impact quality. Future research should incorporate both the policy and quality improvement realms to identify how SFF guidelines can be improved to identify and remedy poor-quality NFs and explicate the variables contributing to quality.

A250

Development of an Effective Transition of Care to Nursing Home Consult Service

K. J. Beiting, S. Ross, H. Murff. Department of Medicine, Division of Geriatric Medicine, Vanderbilt University Medical Center, Nashville, TN.

Background: Care transitions from hospital to skilled nursing facility (SNF) are a time of increased potential error. Medication discrepancies, omitted documents, unidirectional communication, and medical complexity can result in errors, readmissions, and harm. For large hospital systems that discharge patients to numerous SNFs across a state, it may not be feasible to focus improvement initiatives on the SNF. This program objective was to develop a hospital-based transition of care to SNF model that addresses medication discrepancies, complexity care, and opens a bidirectional path of communication to improve patient outcomes.

Methods: A transition of care (TOC) consult service staffed by a geriatric nurse practitioner (NP) at a large academic medical center in Nashville, TN was piloted from May-June 2022 with implementation July 2022. Patients of any age recommended for SNF are eligible for a consult. At time of consult, the TOC NP evaluates the patient, reviews the hospital course, and provides initial recommendations for an effective discharge. At discharge, the NP completes a warm handoff with the accepting SNF. A callback number is given to the SNF for future questions. Age, race, gender, consulting service, length of stay (LOS), and 30-day readmission rates as well as transition-related near misses or errors caught during the warm handoff were collected.

Results: From May 2022-May 2023, 246 TOC consults were completed representing 235 unique patients. Consult sources included: geriatric medicine (28%), hospital medicine (35.8%), other medical specialties (10.6%), surgical services (24.4%), and case management (1.2%). Of these encounters, 215 ultimately discharged to SNF with a mean(SD) age of 76.9(12.1) years, 56% female, 83.6% white, 14.02% Black, with Medicare (43%) or other government insurance (49%) as most prevalent insurance type. Average(SD) LOS was 14.2(10.6) days. A warm handoff was successfully completed in 184/215 (85.6%) of discharges. In 48/184 of handoffs, clarification was provided for 19 medication discrepancies, 24 care plan queries, 3 social concerns, 8 appointments, and 3 wound care orders.

Conclusions: A TOC consult service can help prevent transition-related errors upon discharge to SNF and support bidirectional SNF-hospital communication. Next steps include comparative data analysis of SNF discharges receiving TOC consult versus not.

A251

Best Practice Advisory to Reduce Urine Cultures in Older Adults

C. Coffey,¹ M. Nelson.² 1. Internal Medicine Geriatrics, University of Kansas Medical Center, Kansas City, KS; 2. The University of Kansas Health System, Kansas City, KS.

Background: Patients are routinely treated for urinary tract infections with broad-spectrum antibiotics without clinically diagnostic indications.¹ Such practices contribute to increased healthcare costs and resistance among uropathogens.² Inappropriate antibiotics for asymptomatic bacteriuria (ASB) in older adults is associated with increased length of stay, adverse events and death.³ With recommendations against treating ASB, electronic interventions can support stewardship.

Methods: This study evaluated efficacy of a best-practice alert (BPA) on independent urine culture orders in absence of a positive urinalysis. BPA reflex rules were defined by evidence-based recommendations. When activated, the BPA presented education and options for providers to ‘Choose Wisely.’ Inclusion criteria were age greater than 64 and admission. Implementation occurred without prior education. Data was collected over six months.

Results: The BPA fired 314 times in 249 patients. BPA recommendations were highly accepted at 64%. Independent culture with sensitivity orders declined and patient savings totaled \$47,000. Themes for declining BPA recommendations included: immunosuppression, atypical presentation, and repeat testing. Residents and Fellows, Advanced Practice Providers, and Physicians were the main ordering groups at 35%, 26% and 24% respectively.

Conclusions: BPA intervention was effective. This work has initiated analysis of length of stay and antibiotic misuse at the institutional level. Furthermore, provider behavior was positively affected by the intervention demonstrating the importance of evidence-based practice and education on stewardship. Such practices are fundamental in the care of older adults.

1. Ahmed SS, Shariq A, Alsalloom AA, Babikir IH, Alhomoud BN. Uropathogens and their antimicrobial resistance patterns: Relationship with urinary tract infections. *Int J Health Sci (Qassim)*. 2019;13(2):48-55.

2. Petty LA, Vaughn VM, Flanders SA, et al. Risk Factors and Outcomes Associated With Treatment of Asymptomatic Bacteriuria in Hospitalized Patients. *JAMA Intern Med*. 2019;179(11):1519-1527. Doi:10.1001/jamainternmed.2019.2871

3. Madrazo M, Esparcia A, López-Cruz I, et al. Clinical impact of multidrug-resistant bacteria in older hospitalized patients with community-acquired urinary tract infection. *BMC Infect Dis*. 2021;21(1):1232. Published 2021 Dec 7. Doi:10.1186/s12879-021-06939-2

A252

Transitional Care Management Meets the 4Ms in Age-Friendly Health Systems for Effective Care Coordination of Older Adults

I. Valdez,² C. Chiu,² J. Aiken,² M. Guzman,² A. Newman,² M. Horsfield,¹ K. S. Agarwal.² 1. Reilant Medical Group, Worcester, MA; 2. Baylor College of Medicine, Houston, TX.

Background: Institutions that are recognized as Age-Friendly Health Systems (AFHS) improve the health outcomes of older adults by using the evidence-based framework called the 4Ms—What Matters Most, Mentation, Mobility and Medications. As older adults are at higher risk of hospitalizations, the Medicare Transition Care Management (TCM) post-hospitalization visit poses an excellent opportunity to reduce hospital readmissions by facilitating communication across care settings. The aim of this quality improvement project is to improve use of the 4Ms with older adults after hospitalization by using an electronic medical record *SpeedButton* tool that automatically populates a note embedded with the 4Ms care model.

Method: A visit note was designed with the criteria needed in a TCM visit and a section with the 4Ms was added to prompt providers to address these key topics during the visit. A *SpeedButton* was deployed in the electronic medical record to easily populate the note and facilitate its use across academic primary care clinics including General Internal Medicine (GIM), Family Medicine (FM) and Geriatrics. The first intervention was a 15-minute education for providers on using the innovative *SpeedButton* with respect to the 4Ms. After the brief intervention, a Grand Rounds lecture was held to expand on transitions of care, the 4Ms, and the *SpeedButton* to easily document the visit.

Result: The pre-intervention survey was completed by 17 providers and revealed that many providers do not address What Matters Most. While many use note templates, most had not used a *SpeedButton*. From July to August 2023, the *SpeedButton* was tested by 7 providers in 15 completed visits with patients 65 years and older; the 4Ms framework was used in 73% (n=11) of the visits. After the intervention, the *Speedbutton* use increased to 51 completed visits by 19 providers from September to mid-November 2023 and the 4Ms framework was used in 45% (n=23) of the visits.

Conclusion: The *SpeedButton* was successfully implemented in three primary care clinics. Prompting providers to address the 4Ms

within normal workflow in a TCM visit may facilitate Age-Friendly Care. We will continue to track monthly usage of the *SpeedButton* and 4Ms within the template and conduct a post-intervention survey in March 2024.

A253

Staff Perspectives on Palliative Care in the Skilled Nursing Facility Setting: The ArchCare Experience

M. Saraiya,¹ D. Shalev,¹ R. Adelman,¹ W. Michelen.² *1. Geriatrics and Palliative Care, Weill Cornell Medicine, New York, NY; 2. ArchCare, New York, NY.*

Background: Patients in skilled nursing facilities (SNF) have high palliative care needs. However, integration of palliative care in SNFs has lagged relative to inpatient, ambulatory, and home-based care settings. The objectives were to understand the perspectives of interdisciplinary SNF staff on meeting the palliative care needs of their patients.

Methods: We developed a palliative care needs assessment tool which was distributed to interdisciplinary staff at 7 ArchCare SNFs in New York City, Westchester, and the Mid-Hudson valley with a total of 2,447 beds.

Results: 488 SNF staff responded. The most represented disciplines were registered certified nursing assistants (n=141) and registered nurses (n=107). 73% (n=346) of respondents agreed or strongly agreed that palliative care could improve the quality of life of their patients with serious illness and 57% (272) wished to increase patients' access to palliative care. However, ~20% (86) worried that palliative care would make their patients lose hope and 39% (n=191) were unsure about the difference between palliative care and hospice. Respondents felt that most of their SNF patients would benefit from palliative care consultation (median 70%, IQR 50-91%). The most common ways in which respondents felt consultation would help patients were pain management, caregiver support, and psychiatric symptom management. These were also the three domains in which respondents were most interested in further training. Respondents felt the most effective way to receive more training was through an embedded expert clinician discussing cases (53% of respondents, n=259).

Conclusion: Despite some misconceptions about palliative medicine, interdisciplinary SNF clinicians identify high palliative care needs among their patients and desire more palliative care integration and support, particularly in the domains of mental health, caregiver support, and pain management.

A254

Achieving Patient Centered Care Through Care Alignment With What Matters Most In PACE

C. Davenport,¹ B. Centano,² M. Perkins,² S. Simmons,² K. Hernandez-Bigos,³ D. Otero,² W. Michelen.² *1. Internal Medicine, Weill Cornell Medicine, New York, NY; 2. Archcare SeniorLife, ArchCare, New York, NY; 3. Yale School of Medicine, New Haven, CT.*

A quality improvement project was initiated within a Program for All Inclusive Care of the Elderly (PACE) to improve patient centeredness using patient priorities aligned decision making. This early pilot was critical in directing a PACE national learning collaborative where 5 diverse PACE organizations implementing patient priorities aligned decision making. Healthcare decision-making for older adults with multiple chronic conditions is complicated by uncertain benefits of many disease-based interventions and variable goals and preferences among patients. [1,2] To address these issues Patient Priorities Care (PPC) was developed, which involves identifying, and aligning care with, patients' specific health priorities. [1-4] PPC has been associated with reduced treatment burden and increased preference-concordant care in a fee-for-service outpatient model and in the VA health systems. To date, there have been no evaluations of the impacts of PPC on the PACE. The study population comprised of

763 participants in an urban setting, 99% are dual eligible patients, 100% have needs that meet nursing home requirements and they represent diverse ethnic and racial backgrounds. We will describe implementation of the initiative including leadership buy-in, engagement of key stakeholders, training early clinical champions, workflows, explicit DEIA efforts such as templates for Spanish speakers, educational huddles self-directed work, discipline-specific mentoring, facilitators and barriers, and the data and performance measurement plan. Preliminary outcomes after 9 months showed 33% of patient medical records included patient centered goals. During this phase of implementation, there was a concurrent reduction of hospital utilization and causality is not established. These data show that PPC is feasible in the value-based program of PACE and may impact key performance indicators that are critical in a value-based system.

1. Tinetti ME et al JAMA Int Med. 2019
2. Tinetti ME, et al JAMA 2021
3. Tinetti ME PLOS One 2019
4. Naik AD et al JAGS 2018

A255

Virtual Education Improves Osteoporosis Knowledge in Older Adults – A Quality Improvement Project

N. Safai Haeri,² M. Riley,¹ S. Perera,² S. Greenspan.² *1. UPMC, Pittsburgh, PA; 2. University of Pittsburgh School of Medicine, Pittsburgh, PA.*

Background:

Osteoporosis is a debilitating systemic skeletal disease with subsequent increased risk of fragility fractures. Patient's knowledge gap of osteoporosis is one of the important barriers in optimal management of this condition. In this Quality Improvement (QI) project, we aimed to identify barriers to osteoporosis education and implement interventions to improve this process.

Methods:

We reviewed quality data from our geriatric clinic on patients with osteoporosis to characterize the overall approach to educating these patients on their condition over a 3-month period. Using process map and root cause analysis tools, insufficient clinic encounter time and unavailability of standard educational tools were identified as the major contributing causes for poor osteoporosis knowledge among patients. Based on the identified gaps, we measured patients baseline knowledge of osteoporosis with a standard Osteoporosis Knowledge Assessment Tool (OKAT). OKAT is a 20 true/false item questionnaire with domains on risk factors for osteoporosis, improving lifestyle, diet, exercises, and falls. Following this step, we provided them virtual education by using standard educational tools developed by the Bone Health and Osteoporosis Foundation. We contacted participants 10 days later and conducted post-education knowledge assessment.

Results:

We conducted the intervention in 25 older adults with mean age of 69.8 year who were receiving osteoporosis care at our geriatric clinic. Eighty-four percent of the participants were female, and sixteen percent were male. Sixty percent had college or higher degree education and forty percent were healthcare professionals. Following the implementation of the virtual evidence-based education, we observed 24.7% improvement in post-education OKAT score of 25 participants with osteoporosis compared with their pre-education OKAT score (from 13.86 to 17.28). Participants demonstrated the most improvement in calcium-vitamin D sources and falls prevention domains on their post-education OKAT.

Conclusion:

Providing virtual evidence-based osteoporosis education to patients who are under medical treatment for this condition can improve their general knowledge of osteoporosis.

A256

Screening For Osteoporosis By Dual-Energy X-Ray Absorptiometry (DEXA) Scan In Women 65 And Older In Clinica Sierra Vista- East Niles.

N. Quillatupa,² C. S. Covenas.¹ 1. Family Medicine, Clinica Sierra Vista, Bakersfield, CA; 2. Kern Medical Center, Bakersfield, CA.

Background: Osteoporosis (OP) is prevalent in women and increases with age. OP predisposes to fractures; thirty percent of patients with hip fractures die within one year. USPSTF recommends screening for OP in women 65 years and older. Only thirty percent of US women over the age of 65 years underwent DEXA scans between 1999 and 2005.^{1,2} We aim to increase the screening for OP with DEXA scans in Clinica Sierra Vista- East Niles (CSV-EN). CSV is considered a Federally Qualified Health Center clinic with one of its locations on East Niles (EN). CSV-EN serves a population that faces countless social determinants of health, including access to healthcare, lack of insurance or legal status, language and cultural barriers, and complex comorbidities.

Methods: The percentage of women 65 years old and older who completed a DEXA scan with office visits to CSV-EN between 2019 and 2021 was obtained from EPIC by the CSV Information Technology (IT). Interventions targeted patients and providers. For patients, after vitals intake and before provider encounters, medical assistants gave a pamphlet in English or Spanish with OP and DEXA scan information. Providers received OP presentations, including specific coding for testing and diagnosis. CSV IT collected data based on the PDSA cycle model after a four-week implementation period. Data was analyzed using Excel Version 16.67.

Results: Data showed that as a baseline, only 0.69% of the targeted population had a DEXA scan completed. After a four-week-cycle intervention, the DEXA scan completion was 8.79%, presenting a remarkable increase of 1173.9%.

Conclusion: Providing education to patients and providers increased the screening of OP by DEXA scan in women 65 and older in CSV-EN; this may aid in filling the gaps of healthcare inequity in underrepresented communities such as Bakersfield.

A257

Improving Falls Prevention Screening in the Primary Care Setting

A. DeRadke, D. Waters. Geriatric Department, University of New Mexico Health Sciences Center, Albuquerque, NM.

Background

Falls often go undetected in the primary care setting because patients do not always volunteer their fall history and doctors do not always ask. According to data from the National Health and Aging Trends study fear of falling is just as important as multiple previous falls in terms of limiting daily activities (Liu, 2021). For this reason, it is important to know what a patient wants from their primary care clinic regarding fall risk as well as to make sure current screening measures are effective in identifying at risk populations.

Methods

The project was conducted at the UNMH Senior Health Clinic in Albuquerque, NM. Prevalence data on falls and fall-related injury was calculated from the previous year. Patients who screened positive were given a falls prevention education brochure (CDC STEADI). A follow-up questionnaire focused on patient's actions and feelings toward the clinic after receiving the education brochure. Additional data was collected on the providers of the clinic to assess whether reported falls were being addressed and listed as a chronic problem for patients who were at risk of multiple falls.

Results

In the year prior to implementation there was an average of 18.4% (1793 /9741) patients reporting a fall with close to 50% (909/1793) of those falls resulting in injury. About 300 STEADI brochures were

administered and 140 follow-up questionnaires were returned. A large percentage (54%) wanted more access to falls clinic and exercise programs (38%). Many people found the handout helpful (94%) and made changes based on this form (41%).

Data from provider visits showed that during the initial trial period 8.5% (33/388) of patients had a falls related diagnosis code during their visit, and 11.8% (46/388) had a falls related code listed on their chronic problem list. The second trial period showed 10.5% (29/274) and 16% (44/274), respectively.

Conclusion

These data demonstrated a discrepancy between what is important to patients and what clinicians are asking during clinical visits. To better serve our geriatric patients, we need to be implementing better falls screening and individualized treatment plans to reduce fall risk. None of this can get done, however, if we as providers are not making sure to ask patients about their fall history.

A258

Is Gabapentin an Opioid Sparing Postoperative Analgesic in Older Colorectal Surgery Patients?

A. Rajan,¹ J. G. Monteiro,² N. Mujahid,¹ M. Vrees,¹ S. Schechter,¹ L. McNicoll,¹ S. Gravenstein,¹ M. Singh.¹ 1. Brown University, Providence, RI; 2. Brown Medicine, Providence, RI.

Background: The Enhanced Recovery After Colorectal Surgery pathway recommends a postoperative (postop) opioid sparing regimen like gabapentin (gaba) to speed return of bowel function and shorten stay. But, does it decrease opioid use in older colorectal surgery (CRS) patients?

Methods: We retrospectively studied patients ≥65 admitted 2015-2023 for elective CRS, without needing critical care or >3 month stay. Surgeons use a frailty-based protocol for postop gaba dosing: TID low 100 mg (LG) or high 300 mg (HG) dose and no gaba (NG). We calculated postop total oral morphine equivalents (OME), use of NSAIDs, lidocaine patch (l.patch) and acetaminophen (APAP), and incident ileus (ICD or imaging) and delirium (ICD +/- new antipsychotic). We compared groups by bivariate analyses with chi-square and Student's t-tests, and adjusted for age, race, gender, CCI, stay length, postop and home gaba use and postop opioid use.

Results: Of 1139 patients, NG, LG, and HG represented 19.8%, 71.4%, and 8.8%, respectively. Groups differed by age (NG older) and sex (HG more male). Overall mean CCI=6.5 (3.9 sd) and similar between the groups. 96 hours postop, NG had the lowest ratio of opioid use at 73.7% vs 85.5% in LG (p=<0.0001) and 83.7% in HG (p=0.05). Mean OME use was similar: NG 24 (±17), LG 28 (±23) and HG 26.6 (±24). NG used less APAP and l.patch (APAP, 92.4%, l.patch 33.5%) vs LG (APAP, 99%, p=<0.0001; l.patch 77.8%, p=<0.0001) or HG (APAP, 98%, p=0.05; l.patch 80.6%, p=<0.0001). More ketorolac was used by NG (24.6%) vs LG (21.5%, p=0.316) or HG (18.4%, p=0.218). NG used more patient-controlled analgesia vs LG[24.6% vs LG 5.2%, p=<0.0001) or HG (9.2%, p=0.0014)]. Ileus incidence was lower in the NG (3.8%) vs LG (4.8%, p=0.507) or HG (4.1%, p=1.0). Delirium occurred 2.5 times more in HG than LG (2.48 [1.03-5.97]) or NG (2.49 [1.03-6.01]) in those on pre-admission gaba. Absent pre-admission gaba, delirium occurred 49% (1.49 [1.02-2.18]) and over 2 times (2.61 [1.08-6.31]) more in NG than LG and HG, respectively.

Conclusion: Postop gaba use may not be associated with reduced opioid use. This data highlights the differential treatment of postoperative pain based on risk factors. The analgesic effect and dose-related outcomes of gaba need further study.

A259

A Patient-Centered Approach to Tackling No-Show Rates in Geriatric Clinics

T. Allen, T. Garfield. *TCOM, University of North Texas Health Science Center, Fort Worth, TX.*

The issue of patient no-shows in geriatric clinics poses a substantial challenge to both healthcare providers, patients and clinics. Notably, at an academic geriatric practice, a no-show in 2022 cost the clinic an average of \$133 per visit. To address this problem, we used the Lean Six Sigma model of Define, Measure, Analyze, Improve, and Control. To assist with measuring and analyzing the problem, we conducted a survey involving 178 patients who had previously failed to attend scheduled appointments. The results unveiled the primary factors contributing to no-shows, including forgetfulness, patient attempts to cancel unattended appointments, and staff or scheduling-related issues. To combat these issues, this study advocates for an approach that prioritizes the patient's experience. It calls for the enhancement of communication between the patient scheduling service and the clinic, rigorous quality assessment of patient contact information to ensure effective appointment reminders, and staff education programs aimed at tackling the elevated staff turnover issue within the clinic. These strategies promise to alleviate the burden of no-shows and foster a more patient-centric and efficient geriatric clinic.

PRESIDENTIAL POSTER SESSION B

Thursday, May 9

5:00 pm – 6:00 pm

B1

Multiple Stressors; Postoperative Diabetic Ketoacidosis After Femur Fracture and Repair in a Woman with Non-Insulin-Dependent Diabetes

M. Gold, R. Tyagi, M. Singh. *Geriatrics and Palliative Care, Brown University, Providence, RI.*

Introduction: Diabetic ketoacidosis (DKA), a serious complication of diabetes mellitus (DM) is defined as a metabolic acidosis with increased serum ketones and hyperglycemia. It often presents with abdominal symptoms or unstable vital signs. Post-operative DKA is not common and few reports exist in patients with non-insulin-dependent diabetes (NIDDM). We present a case of DKA in an older adult with a history of NIDDM admitted for surgical repair of a femur fracture.

Case: 70 year old Hispanic female presented after a fall which resulted in a femur fracture. Past medical history included NIDDM on metformin and hypothyroidism. Preoperative blood work, complete blood count and basic metabolic panel (BMP) were unremarkable. She underwent left femoral intramedullary nail fixation the next day without complication. A urinalysis obtained perioperatively was notable for trace leukocyte esterase, 20 white blood cells, bacteria and mucus present, 2+ ketones, 3+ glucose. Post operative day 1, BMP had a bicarbonate level of 9 mEq/L and a high anion gap metabolic acidosis of 20. Arterial blood gas revealed a pH of 7.2 and an elevated beta-hydroxybutyrate level of 3.43 (0.4-0.5mmol/L). A diagnosis of DKA was made. Subjectively, she denied nausea or abdominal pain and vitals were stable without tachypnea or tachycardia. Blood glucose levels were elevated, ranging from 179-330 mg/dL. A blood lactate level was normal. She was treated with intravenous fluids and insulin glargine with resolution of DKA. The urine culture grew E. coli and treatment for acute cystitis was initiated. Glycosylated hemoglobin returned later with a value of 11.7%. Endocrinology was consulted, and C-peptide and Glutamic acid decarboxylase antibodies were 0.6 (0.5-3.3ng/mL) and <5 (0.0-5.0IU/mL), respectively. She was continued on insulin at discharge.

Discussion: The presence of multiple physiologic stressors (fracture, infection, surgery) and unknown uncontrolled DM, led to the increase in metabolic demand and hormonal stress response, resulting in a new metabolic acidosis and DKA in the postoperative period. This case brings attention to the notion that older adults often present differently with common illnesses than younger individuals and care in identifying those at risk is imperative. Further investigation into best practices for NIDDM in the perioperative setting is warranted.

B2

Dysphagia due to injectable second-generation antipsychotic.

N. Vura,¹ N. sharma,¹ S. Chittari.² *1. Hospital Medicine, The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2. MPH, Hofstra University, Hempstead, NY.*

Introduction: Antipsychotics are associated with extrapyramidal symptoms (EPS), including dysphagia, esophageal dysmotility, or aspiration, which may not always be recognized as EPS. Dysphagia caused by antipsychotic medications is often overlooked. First generation antipsychotics have traditionally been associated with EPS such as akathisia, rigidity, bradykinesia, tremor, and acute dystonic reactions. We report a case with severe dysphagia secondary to the use of injectable Paliperidone (second-generation antipsychotic). A literature search revealed very few published cases of dysphagia associated with Paliperidone use.

Case description: A 64-year-old male with a history of schizoaffective disorder, bipolar type, was initiated on injectable Paliperidone presented with dysphagia, intermittent drooling of saliva and inability to tolerate oral intake for the past two weeks. He was admitted and discharged to a rehab facility from an outside hospital due to dehydration and limited oral intake before this presentation. His symptoms worsened further after receiving the second shot of Paliperidone three weeks prior to the presentation. Laboratory results were unremarkable. The patient exhibited bradykinesia, rigidity, and diffuse hyperreflexia. Speech language therapy evaluated the patient after admission and diagnosed him with oropharyngeal dysphagia. Evaluation showed significant oral retention of thin liquids, difficulty with pureed textures, and prolonged mastication with solid textures were observed, along with anterior spillage. No obvious signs and symptoms of aspiration were noted. The patient was started on thin liquids (IDDSI level 0), and a diet consisting of soft and bite-sized foods (IDDSI level 6). His motor symptoms deteriorated further, and was diagnosed with catatonia. His medication was switched to Aripiprazole, and was treated with Lorazepam and Memantine for catatonia. Gradually, his dysphagia improved, and he was safely discharged from hospital.

Discussion: Antipsychotic-related oropharyngeal dysphagia, caused by second generation antipsychotics, is an uncommon side effect. However, it has been reported in only few case reports. It is crucial to recognize this side effect, particularly in patients who are receiving these medications, and promptly treat it to prevent complications such as asphyxiation and aspiration pneumonia.

B3

The Importance of Medication Review in Worsening Neuropsychiatric Symptoms of Dementia: Accidental Ophthalmic Administration of Carbamide-Peroxide Otic Solution

M. H. Bogin, A. Stantz, B. C. Sohn, M. Mendoza. *CIMGP, Mayo Clinic Minnesota, Rochester, MN.*

Introduction:

Medication reconciliation is one of the pillars of a comprehensive geriatric assessment. Worsening neuropsychiatric symptoms of dementia (NPSD) are a common reason for acute care visits in long-term and memory care settings. We present a case of a patient with NPSD in a memory care unit due to ongoing carbamide-peroxide otic solution administration to the eyes.

Case Description:

An 84-year-old female with dementia (FAST 6D) was evaluated in a memory care unit for escalating aggression. She was recently hospitalized for aggressive behaviors and treated for a urinary tract infection. Her agitation transiently improved. She was found to have bilateral cerumen impactions, and she was prescribed carbamide-peroxide 5 drops into each ear for 5 days. She was reevaluated and continued to have significant cerumen bilaterally, and the prescription was refilled. She continued to be physically aggressive with staff. Upon medication review 5 weeks later, it was found that the pharmacy had incorrectly processed the carbamide-peroxide solution prescription for ophthalmic administration. The medication was promptly stopped, and her behaviors improved.

Discussion:

Medication errors frequently occur in long-term care facilities. Among the various types, prescription processing errors can include incorrect administration instructions. It is crucial to regularly review medications to ensure accuracy in dosing and administration. Because the patient was in an advanced stage of dementia, she was unable to express the pain caused by this improper medication administration, possibly leading her to display aggressive behavior. Pain often triggers behavioral disturbances in patients with dementia. This situation underscores the necessity of thorough evaluations for dementia patients exhibiting worsening or new behaviors.

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B4 Resident Presentation

Delayed Diagnosis of Immune Thrombocytopenic Purpura Following COVID-19 Infection in an 83-Year-Old Female

Y. Shichijo,¹ K. Horiuchi,¹ J. Fogel.² *1. Medicine, Mount Sinai Beth Israel Hospital, New York, NY; 2. Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background:

Immune thrombocytopenic purpura (ITP) is an autoimmune disorder marked by thrombocytopenia, purpura, and bleeding episodes caused by antiplatelet autoantibodies. Its etiology in adults is uncertain, displaying a varied clinical course. ITP can be primary or secondary to other underlying disorders including viral infections. ITP is also recognized as a significant complication related to COVID-19.

Case:

An 83-year-old female presented to ED with 3-month history of recurrent bruising. She was referred from her primary care physician's office after a routine blood test revealed a significantly low platelet count (3,000/ μ L). The patient and her son also recalled observing large non-traumatic "bruise" on her right shin 3 months earlier, which they had attributed to a centipede found in their home around the time it developed. A month before presenting the "bruise", she had experienced a non-severe COVID-19 with mild upper respiratory tract symptoms managed with nirmatrelvir and ritonavir as an outpatient.

On this presentation, her vital signs were stable and physical exams were only notable for diffuse ecchymosis on the forearms and upper arms. Complete blood count revealed a severe isolated thrombocytopenia (less than 1,000/ μ L), also confirmed in a sodium citrate tube. Blood smear analysis showed an absence of platelets, but no burr cells or schistocytes were observed. Coagulation studies were unremarkable. Secondary etiology of thrombocytopenia was explored

which revealed negative results for active infection including HIV, cytomegalovirus, and hepatitis C. Rheumatologic work-ups were unremarkable including negative antinuclear antibody. Ultrasonogram of abdomen did not reveal splenomegaly or liver pathology. Reviewing the clinical course overall, patient was diagnosed with ITP secondary to COVID-19. The patient was treated with 2 units of platelet transfusions, steroids, and a course of intravenous immunoglobulin with adequate treatment response.

Conclusions:

The delayed diagnosis of ITP was a result of the initial disregard of the patient's first episode of purpura. Although purpura can be mistakenly attributed to aging or other etiologies especially in older adults, it is imperative to include ITP in the differential diagnosis, especially in patients with a recent history of COVID-19.

B5

Reversal of Frailty after Treatment for Opioid Use Disorder

M. K. Mackiewicz,¹ A. J. Landi,² S. Levine.² *1. Hospital Medicine, University of Chicago Division of the Biological Sciences, Chicago, IL; 2. Medicine, University of Chicago, Chicago, IL.*

Background: Rates of opioid use disorder (OUD) among older adults are among the fastest growing demographic yet often underdiagnosed and undertreated.¹ OUD may worsen cognitive impairment, functional decline, and falls.² While Medications for Opioid Use Disorder (MOUD) has been shown to be highly effective, treatment rates are low.³ This case highlights OUD as a modifiable risk factor that may contribute to these geriatric syndromes, including frailty.

Case: A 74-year-old African American male with a history of hypertension, diabetes and OUD was brought to the ED after being found on the floor of his apartment after a fall. His exam was notable for right upper extremity median nerve palsy, inability to stand, and penile wounds secondary to urinary incontinence. Lab results demonstrated rhabdomyolysis and urine toxicology positive for fentanyl. Substance history included eight prior opioid overdoses in the past two years, with last heroin use one week prior. He declined evaluation by the inpatient OUD service. The Clinical Opiate Withdrawal Scale (COWS) score remained unremarkable and he was transferred to a skilled nursing facility (SNF). On admission to the SNF he was unable to sit up unassisted and exhibited functional incontinence, low mood and energy levels which impeded progress with therapy services. The patient eventually agreed to starting buprenorphine-naloxone (8-2mg) BID and counseling services. By week three, he had improvements in mood, energy level and appetite, regaining 18 lbs. Although his right upper extremity remained weak, the patient regained continence, his penile wound healed and he was able to stand and ambulate unassisted.

Conclusion: OUD should remain on the differential when evaluating and managing the frailty syndrome. While OUD is a chronic disease that involves an interplay of genetic, social, and biomedical components, once diagnosed, is highly treatable with MOUD agents and concurrent psychological support.

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B6

Cognitive biases in the care of the elderly

J. Y. Kim, I. Neel. *Geriatrics, University of California San Diego, La Jolla, CA.*

Background: Cognitive biases have been shown to significantly contribute to diagnostic and treatment errors. Common examples include anchoring bias, confirmation bias, and affect heuristic.

Anchoring bias refers to prioritizing information that support one's initial impressions. Confirmation bias involves selective gathering and interpretation of evidence consistent with one's beliefs and the neglect of those that contradict them. Affect heuristic is seen when one is swayed by emotional reaction rather than rational deliberation. Here we present a case that highlights the impact of such cognitive biases on patient care.

Case: A 78-year-old male with multiple sclerosis and depression presented to the emergency room for confusion and refusal to take PO. The patient's husband stated that he was agitated and increasingly paranoid that his medications were being "tampered with," leading him to refuse medications and eventually PO altogether. The patient had seen outpatient psychiatry 6 days prior, at which time he was started on olanzapine 2.5 mg nightly for paranoia/agitation without improvement. The patient was admitted to rule out medical causes for altered mental status (AMS). He continued to be altered and refuse medications and routine nursing care. He received medical clearance and was transferred to the geropsychiatry unit for management of psychosis. On transfer to the unit, he was noted to have a large unstageable sacrococcygeal wound concerning for osteomyelitis. Imaging was obtained and surgery was consulted. Wound debridement was performed and he was started on IV antibiotics. The patient's mental status significantly improved with treatment of osteomyelitis, and he was transferred back to the medicine service for ongoing medical management and ultimately discharged home.

Discussion: AMS requires a careful history and physical examination, as the differential can be broad and the causes multifactorial. In this case, the patient's AMS was due to osteomyelitis but was misdiagnosed as a psychiatric issue, highlighting the role of anchoring and confirmation biases. A negative affect heuristic likely also contributed to his care, given his agitation and refusal of care. It is important to recognize such biases in our own thinking processes and implement strategies to decrease bias-related medical errors.

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B7 Resident Presentation

Unveiling Hidden Abuse of Older Adults: A Case Study on the Critical Role of Clinical Vigilance and Skin Examinations

Y. Shichijo,¹ T. Fusillo,² F. Kahan,³ S. Bhatia,² Y. Yamada.⁴

1. *Medicine, Mount Sinai Beth Israel Hospital, New York, NY;*

2. *Medicine, Mount Sinai Morningside Hospital, New York, NY;*

3. *Social Work, Mount Sinai Health System, New York, NY;*

4. *Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Abuse of older adults, a significant but underreported public health issue, inflicts substantial costs on victims and healthcare systems. Although it is notably linked to higher mortality in older adults, its detection and reporting are insufficient. Healthcare professionals are crucial in identifying and addressing elder abuse, emphasizing the need for alertness to signs of abuse and neglect in older adults.

Case: An 88-year-old female with cognitive impairment presented with malnutrition and severe constipation. CT abdomen/pelvis showed a largely distended rectum with stool impaction and stercoral colitis. The patient was admitted for its management. A chart review revealed that the patient had been prescribed loperamide for diarrhea at her son's request, who is her primary caregiver. Physical exam showed multiple bruises at different stages of healing on her forehead, chest, thigh, and lower leg. The patient declined an abdominal examination and attributed her injuries to playing baseball with her grandchildren despite being mostly in bed. Initially, the patient denied any physical abuse. However, per her primary care physician,

her son had previously expressed being overwhelmed by his caregiving responsibilities. Additionally, a month prior to this presentation, he aggressively confronted an outpatient social worker, leading to the abrupt end of the conversation. After being admitted, the patient disclosed to a nurse that she had been physically assaulted by her son, which raised serious concerns about abuse. An interdisciplinary meeting was held. A referral to Adult Protective Services was initiated. Considering her safety, she was discharged to a subacute rehabilitation facility.

Conclusions: This case exemplifies the hidden complexities of abuse of older adults, particularly in patients with cognitive impairment and/or denial of abuse. It highlights the need for healthcare professionals to maintain high vigilance, employ multidisciplinary approaches, and engage in detailed patient interactions to uncover and address such abuse. Effective detection and intervention can significantly impact patient safety and well-being.

B8

A case of rapidly progressive dementia due to Cushing syndrome

N. F. Maston, M. Bednarczyk. *Geriatric Medicine, Rush University Medical Center, Chicago, IL.*

Background: Cushing syndrome is a well-known but challenging clinical entity seen most frequently due to exogenous steroid use. However, the estimated incidence of Cushing syndrome due to endogenous steroid production is between 2-8 cases per million annually (1). Manifestations include facial plethora, truncal obesity, hypertension, hyperglycemia, and neurocognitive changes. Although neurocognitive changes are a known consequence of Cushing syndrome (2), they are highly variable, and Cushing syndrome is often not included in a differential diagnosis for cognitive decline in a geriatric population. We present a case of Cushing syndrome due to adrenal malignancy presenting as cognitive decline in a 79-year-old man.

Case: Following hospitalization for influenza, a 79-year-old man with a history of type 2 diabetes noted, "I have just not been the same." MoCA was noted to be 26/30. Over the next three months, progressive difficulties with cognition and gait instability were noted. He underwent formal neuropsychiatric testing, which showed impaired processing speed and immediate recall with intact recognition and language; MoCA at that time had declined to 17/30. He was then admitted to the hospital for expedited evaluation. CT with IV contrast revealed an enhancing right adrenal mass. ACTH was suppressed, morning cortisol was in the high-normal range, and was grossly unchanged following a 1-mg dexamethasone suppression test. Four weeks later, the patient underwent adrenalectomy with en bloc nephrectomy; surgical pathology ultimately confirmed a 13.5 cm adrenocortical carcinoma. The patient was discharged to subacute care, and ultimately to home. MoCA at follow-up six months later was 22/30 and he noted improved strength and cognition, although family continues to assist with medication management and care coordination.

Conclusion: At older age, Cushing syndrome may present as an ACTH-independent process due to adrenal malignancy and should be considered in the differential evaluation of older individuals with rapid cognitive and functional decline. Some but not all sequelae may improve with treatment.

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B9 Resident Presentation

EVALUATION OF EMPAGLIFLOZIN TOLERABILITY IN THE SOUTH TEXAS VETERANS HEALTH CARE SYSTEM (STVHCS) COMMUNITY LIVING CENTER (CLC)

P. M. Thundiyath,¹ H. P. Blacksmith,¹ A. L. Tarnowski,¹ L. D. Chu.²
 1. Pharmacy, Audie L Murphy Memorial Veterans' Hospital, San Antonio, TX; 2. The University of Texas at Austin College of Pharmacy, Austin, TX.

Background: Empagliflozin is a sodium-glucose transport protein 2 inhibitor (SGLT-2i) that is utilized in type 2 diabetes (T2DM), heart failure (HF), and chronic kidney disease (CKD) with recommendations from several guidelines supporting its use. Robust evidence of the safety of SGLT-2is in older adults is lacking. Adverse drug effects include volume depletion, genitourinary infections, and urinary frequency, which are more common in older adults. No randomized controlled trials have evaluated the use of SGLT-2is in long-term care facilities (LTCFs).

Methods: This retrospective review utilized electronic medical records from the STVHCS. CLC veterans who received empagliflozin from July 2018 to July 2023 were included. The following data points were collected: age at initiation, gender, admit treating specialty, initiation setting, indication, dose, duration, adverse effects, presence of urinary catheter, response to poor tolerability (held, dose reduced, or discontinued medication), concomitant medications or disease states.

Results: Thirty-seven veterans (92.7% male, 7.3% female, average age 70.5 years) were included in this review. Empagliflozin was initiated in CLC, outpatient, and during hospitalization in 29.3%, 31.7%, and 39% of patients, respectively, for HF, T2DM, CKD in 48.8%, 97.6%, and 43.9% of patients, respectively. Majority (87.8%) of patients were on concomitant antihypertensives and more than one-third on alpha-blockers or diuretics. Twenty of the 37 patients (48.8%) experienced an adverse effect while on empagliflozin with 19 patients (46.3%) discontinuing empagliflozin. The most common adverse effects were urinary tract infection (19.5%), genital mycotic infection (7.3%), and hypotension (7.3%).

Conclusions: Caution must be exercised when initiating or continuing SGLT-2is in LTCFs. Urinary tract infections are common in LTCFs and administering SGLT-2is increases risk. Consideration of a patient's past medical history, concomitant medications, and other risk factors should be taken into account when prescribing SGLT2is. More studies are needed to evaluate the risks and benefits of SGLT2is in LTCFs.

B10

Dyspnea in Older Adults: Consider Late Age Onset of Amyotrophic Lateral Sclerosis

E. Liang, S. Sehgal. *Geriatric Medicine, University of California Irvine, Irvine, CA.*

Introduction - Dyspnea is a common symptom in aging patients and one with a broad differential diagnosis. History and physical examination are increasingly important to narrow down the potential causes. While most geriatric patients are found to have either a cardiac or pulmonary etiology, dyspnea can be a manifestation of many ailments including an infectious process, psychological disturbance or be neurological in nature.

Case description – We present a case of an 86-year-old male with history of hypertension, prior prostate cancer, and restless leg syndrome presenting with a 6-week history of dyspnea. Patient is a highly active individual at baseline running 6 miles per day, working out at a gym more than 3 times per week. Patient initially presented with increasing anxiety episodes, manifesting in panic attacks. He was treated with SSRI therapy without effect. Shortly thereafter, patient developed dyspnea with light activity, though not exacerbated with exercise. Symptoms were progressive with worsening dyspnea, associated cough, congestion, and leg swelling. Patient was worked up

for heart disease, DVT/PE, and pulmonary pathologies over the next two months. Diagnostic studies included: ultrasound of lower extremity negative for DVT, echocardiogram with normal ejection fraction, chest angiogram with no signs of pulmonary embolism. At the time of initial pulmonology consultation, patient had developed new symptoms including progressive weakness, dysphagia, and imbalance. In office spirometry was concerning for some diaphragm weakness. Patient was promptly referred to neuromuscular clinic, with EMG/NCV study showing fibrillation potentials in all muscles, frequent fasciculations potentials, consistent with clinically definite ALS.

Discussion – While the average age of diagnosis of ALS is 55, this case illustrates the importance of considering a neurological cause of dyspnea in older adults who present with a subacute onset. Amyotrophic lateral sclerosis (ALS) is an incurable and progressive neurodegenerative disorder with hallmark features of both upper and lower motor neuron signs and symptoms. The most common initial presentation is asymmetric limb weakness. In less than 3% of cases, onset can include respiratory muscle weakness.

B11 Student Presentation

Early Lewy Body Dementia...Or Is It?

M. Barnwal, H. Amjad. *Johns Hopkins University, Baltimore, MD.*

Background:

In older adults, neurodegenerative disorders such as Alzheimer's disease and other dementias are common causes of cognitive impairment. Narrow differential diagnosis for cognitive impairment can lead to confirmation bias and anchoring bias. By keeping a broad differential diagnosis when symptoms do not fully align with a single disorder, bias can be mitigated to avoid missing a potentially treatable condition.

Case:

A 71-year-old Muslim man was seen by geriatrics for confusion and hallucinations in the setting of severe back pain. Family observed intermittent disorientation within the home, tangential speech, confusion and visual hallucinations while praying, and trouble swallowing over a few months. He had received tramadol and gabapentin for pain with sleepiness that continued after medications were stopped. He was evaluated and treated for sleep apnea. His Montreal Cognitive Assessment (MoCA) score was 26/30; on exam, he fell asleep and slurred speech at times. MRI showed mild generalized cortical atrophy but no focal atrophy or lesions. In addition to typical dementia labs, ESR, CRP, ANA, Lyme, and paraneoplastic/autoimmune antibody panel were ordered, and neurology and speech pathology referrals placed. At neurology 2 weeks later, his MoCA score was 19/30. Wide gait and mild bilateral upward and horizontal gaze palsy were noted. The leading diagnoses were early Lewy body dementia or progressive supranuclear palsy. The patient met several criteria for these disorders but neither explained all his symptoms. Presentation was complicated by spinal stenosis, sleep apnea, and diabetic polyneuropathy.

The autoimmune encephalopathy panel was positive for IgLON Family Member 5 antibody. Anti-IgLON5 disease is a recently described central nervous system autoimmune disease characterized by cognitive dysfunction, sleep disorder, gait and gaze abnormalities, and dysphagia.

Discussion:

Anti-IgLON5 disease is rare, with an incidence of 1/150,000. Treatment includes immunotherapy, though prognosis may still be poor. Diagnosis was nearly missed or delayed in this patient as other diagnoses were considered. Cognitive and motor symptoms of Anti-IgLON5 disease overlap with common neurodegenerative disorders, and sleep disturbance can be misattributed. This case highlights the need to keep a broad differential to avoid bias affecting the diagnostic evaluation, particularly when multiple symptoms are present and do not all align with leading diagnoses.

B12**Perioperative Reverse Root Cause Analysis: Reflections on a Case Gone Well**

E. Hays,¹ K. J. Schenning,² E. H. Bowman.¹ 1. *Department of Medicine, Oregon Health & Science University, Portland, OR*; 2. *Department of Anesthesiology and Perioperative Medicine, Oregon Health & Science University, Portland, OR*.

Case Presentation: RB is a 77 yo with degenerative scoliosis, severe Parkinson's disease, HFpEF, atrial fibrillation, alcohol abuse in remission, and CKD3 who underwent complex spine surgery at OHSU.

Preoperative assessment was notable for high-risk geriatric syndromes including frailty (scored 10/17 on Edmonton Frailty Scale), hearing/vision impairment, and memory complaints (scored 3/5 on Mini-Cog). Preventive efforts focused on pool therapy and preoperative medication management.

The surgery performed was an 11-hr T10-pelvis posterior segmental instrumentation and fusion with 2000 ml blood loss. The patient received 4 units PRBCs and 11 liters IV fluids. Anesthesia included total intravenous anesthetic for most of the case. Blood pressure supported with norepinephrine infusion without prolonged hypotension. The patient had delayed emergence, went to the ICU still intubated, and was extubated POD#1.

Postoperatively, OHSU inpatient geriatrics consult team got involved POD#1, focusing recommendations on age-friendly 4Ms care: What Matters – “expeditiously getting back home to his wife and service dog”; Medications – avoidance of Beers list medications, multimodal pain regimen appropriate for frail elder, and meticulously timed administration of Parkinson's home regimen; Mind – delirium prevention strategies including early foley discontinuation and normalization of bowel and bladder function; and Mobility – early PT, OT and geriatrician meeting with nursing to emphasize early mobilization. To everyone's surprise, this patient remained at cognitive and functional baseline, discharging directly home.

This frail geriatric patient underwent complex spine surgery with excellent functional outcome despite numerous risks, including long procedure, large blood loss, delayed extubation and prolonged postop ICU stay. In addition to the central role of skilled surgery, anesthesia supported the patient through his arduous procedure, avoiding high-risk medications. Ultimately, we believe proactive multidisciplinary care was pivotal, with surgery planned far in advance, enabling preop providers to coordinate with the inpatient geriatrics service to identify and optimize risks from day one.

B13**Would Older Adults with Severe Obesity Benefit from an Adapted Age-Friendly 4Ms Approach? A Case Study**

S. Margosian,¹ K. Palinski,² C. Vitale,^{1,2} S. Dewar.^{1,2} 1. *University of Michigan Division of Geriatric and Palliative Medicine, Ann Arbor, MI*; 2. *VA Ann Arbor Geriatric Research Education and Clinical Center, Ann Arbor, MI*.

Introduction: The 4Ms framework is used to characterize the elements of an age-friendly health system (AFHS): what matters most, medications, mentation, and mobility. Obesity, especially severe or Class III obesity (BMI ≥ 40), is increasingly common among older adults, raising concerns of how to best tailor the principles of AFHS to meet the needs of this vulnerable population in the inpatient setting.

Case: A 71-year-old female, homebound at baseline, with history of obesity (BMI 89), chronic lymphedema, depression, and supraventricular tachycardia was admitted to the hospital with worsening leg swelling and dyspnea, limiting her ability to stand. She was treated for new-onset heart failure and obstructive sleep apnea with improvement in her respiratory status. During a 5-week hospitalization, she suffered multiple obesity-related complications, including a sacral pressure injury, catheter-associated UTI, acute kidney injury, uncontrolled

pain, severe mobility impairment limiting progress with therapy, and prolonged discharge planning. Her care ultimately benefitted from specialized bariatric equipment, increased staff support, and a team-based approach. Learning from her case and a multidisciplinary literature review, we identified key elements of high-quality care for hospitalized older adults with obesity using the 4Ms framework:

- What Matters Most: foster patient autonomy and dignity, identify geriatric models of care which support patients' goals on discharge (i.e. hospice, home-based care, PACE), implement training to address weight bias in healthcare personnel

- Medications: adjust medication doses for weight and lipophilicity, account for kidney impairment, utilize pharmacist for complex multi-morbidity and polypharmacy

- Mentation: screen and treat for depression, dementia, and delirium with attention to obesity-related risks and the effects of weight stigma

- Mobility: identify and acquire appropriate adaptive equipment, design environments to accommodate patients of all sizes, reduce staff injuries with support and training, focus on functional status with attention to caregiver education and home environment

Conclusions: Older adults with severe obesity have unique needs during hospitalization and would likely benefit from adaptation of the 4Ms framework to ensure equitable care.

B14**Garden of Delirium: Opium as the Root of Psychosis**

J. A. Woodard. *Geriatrics & Palliative Care, Medical College of Wisconsin, Milwaukee, WI*.

Case:

Ms. H is a 64-year-old Hmong speaking female without significant psychiatric or cognitive impairment history who presented with a one-month history of auditory and visual hallucinations as well as delusions of grandeur. On initial workup, basic labs were unremarkable. A CT head and chest were negative for acute abnormalities. Due to concern for autoimmune encephalitis, MRI brain and lumbar puncture were performed and unremarkable. Her initial urine toxicology was positive for opiates and oxycodone and negative for all other substances.

Two weeks prior to hospital admission, her primary care provider had prescribed risperidone to treat the hallucinations, which while helpful for her insomnia, had little effect on her hallucinations. Corroborative history from family identified no mood concerns, delusions, or hallucinations prior to this episode. They stated that the patient did not have any access to oxycodone at home but also noted that she had a previous incarceration for possession of narcotics in 2004 and had a history of misuse of acetaminophen with codeine. She had used opium poppy for recreation prior to immigrating to the United States. Family denied any herbal supplement use but remarked that the patient had recently been growing a “plant with flowers for protection.”

During her hospitalization, her mentation improved and hallucinations decreased over the course of three to four days, but she experienced episodes of systolic blood pressures in the 200s, nausea, vomiting, excessive lacrimation, and diarrhea, thought to be attributed to opioid withdrawal. She was treated symptomatically and discharged home with her family with a clonidine taper.

Discussion:

Older adults who present with paranoia and hallucinations are more likely to have Alzheimer type dementia (prevalence of 4-6%) than a primary psychiatric disorder such as schizophrenia (prevalence of 0.1-0.5%). In this patient whose psychiatric symptoms rapidly resolved with removal from her home environment and presumed access to opium, it is more likely that she had a substance-induced psychotic episode, particularly with her characteristic symptoms of opioid withdrawal. This case underscores the importance of a thorough collateral history and broad differential in the workup of older adults with altered mental status.

B15 Resident Presentation

Thoracic spinal meningioma presenting as progressive frailty in an older patient

K. Horiuchi,¹ J. Fogel.² *1. Department of Medicine, Icahn School of Medicine at Mount Sinai, Mount Sinai Beth Israel, New York, NY; 2. Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background

Spinal meningioma is rather a rare form of meningiomas that presents in the intradural space, showing slow growth with benign pathology. Clinical presentation varies depending on the location of the tumor, typically non-specific with radiculopathy and localized spinal tenderness.

Case

A 90-year-old female presented for follow up with recent falls and progressive frailty over the past several months. She had a past medical history of hypothyroidism, depression, and mild cognitive decline and was independent in most of the activities of daily living (ADL). On presentation, she complained of back pain after recent falls and further functional decline being unable to complete ADL unassisted. Physical examination revealed a decreased proximal muscle strength of the lower extremities with intact sensory and symmetrical reflexes without signs of trauma, gait was unstable with a cane. Confirming recent unremarkable computed tomography (CT) of the head and lumbar CT revealing multiple level severe canal stenosis with root compression L3, 4, she was instructed to continue physical therapy using a walker and follow-up with spine orthopedics. However, on being evaluated by orthopedics, the patient had hyperreflexia of the knees bilaterally and considering a rather fast decline in ADL, full spinal MRI was obtained to rule out structural etiology, which revealed an intradural mass at the level of T8, occupying majority of the spinal canal. Surgical resection of the mass was performed and pathological evaluation confirmed a meningioma. Patient continued to work on physical therapy after the surgery with gradual recovery in ADL, ambulating with greater stability with a cane.

Conclusion

Diagnosis of a spinal meningioma is frequently delayed, as these clinical features are non-specific that can be masked by multiple conditions often present in older adults. When clinicians encounter an older patient with progressive frailty, weakness in lower extremities, and non-specific back pain, history and physical examinations should be obtained carefully to evaluate possibilities of structural etiology including upper motor neuron pathology.

B16 Resident Presentation

Endovenous radiofrequency ablation of great saphenous vein complicated by pulmonary embolism in an older patient

K. Horiuchi,¹ J. Sarmiento,¹ J. Fogel.² *1. Department of Medicine, Icahn School of Medicine at Mount Sinai, Mount Sinai Beth Israel, New York, NY; 2. Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background

Pulmonary embolism is a rarely reported complication of endovenous radiofrequency ablation for varicose veins. However, the extent of this complication in the geriatric population remains unclear.

Case

A 75-year-old woman presented to the emergency department with concern for pulmonary embolism (PE). For months she had pain and swelling of her lower extremities with varicose veins, for which she had an endovenous radiofrequency ablation (EVRFA) of her right great saphenous vein a day prior to the presentation. She also had a history of atrial fibrillation on rivaroxaban and at baseline, she used a cane to walk and was cognitively intact. Rivaroxaban was held for one day prior to the procedure. Ablation was done ultrasound guided, confirming absence of thrombus upon completion of the procedure.

On the day of presentation, she had a follow-up visit to obtain duplex ultrasound of her right lower extremity (RLE) as part of the post procedural protocol which revealed a non-compressible femoral vein, indicating deep venous thrombosis (DVT). While the ultrasound technician was performing a thorough ultrasound compression test on the venous system, the technician noticed a dislodge of the DVT from the femoral vein, followed by recovery of compressibility of all venous systems. The patient was referred to the Emergency Department for further evaluation. On arrival, patient was asymptomatic, vital signs were unremarkable and physical exam was unrevealing except for varicose veins. Computed tomography of the chest with contrast revealed a thrombus involving the right middle lobe pulmonary artery, and overall results indicating sub-massive PE. She was treated with heparin inpatient and was transitioned to apixaban on discharge.

Conclusion

Complication of PE/DVT in older patients undergoing EVRFA is underreported, and needs attention as mortality is high for older patients with PE. When clinicians encounter older patients seeking procedures for varicose veins, EVRFA should be carefully discussed after individualized risk evaluation for PE/DVT.

B17

Cystatin C as a Diagnostic Biomarker for Chronic Kidney Disease in Frail Older Adults

K. Kuroda, A. Birkland, J. D. Muniak. *Geriatrics & Aging, University of Rochester Medical Center, Rochester, NY.*

Background: Cystatin C, a protein that is filtered at the glomerulus and not reabsorbed into the bloodstream or secreted into the renal tubules, is gaining attention as a more accurate indicator of the glomerular filtration rate (GFR) because cystatin C is less affected by factors such as age, gender, race, and muscle mass.¹ In the following case, cystatin C helped detect chronic kidney disease (CKD) in a frail, older adult patient, proving instrumental in securing an appropriate diagnosis and treatment plan.

Case: The patient is a 90-year-old male residing in a long-term-care facility's ventilator unit, and is multi-morbid with chronic respiratory failure, myoclonus, and dementia. He developed progressive, subacute anemia, with iron studies showing a mixed picture of iron deficiency and anemia of chronic disease. No bleeding source was identified. Iron supplementation was added, yet he required recurrent transfusions of packed red blood cells every 2-4 weeks. The patient had normal creatinine, yet Cystatin C level was found to be elevated at 2.0 mg/L, corresponding to an eGFR of 27. This led to the diagnosis of CKD stage 4 and anemia due to CKD. Subsequently, the patient was initiated on weekly erythropoietin injections, which successfully corrected anemia. The patient has not required further blood transfusions.

Discussion: This case illustrates the power of Cystatin C, to help make an accurate diagnosis of anemia of CKD in a frail patient whose creatinine was in the normal range. Given that sarcopenia is a normal part of aging, many older adults are at risk of having improperly assessed kidney function based on creatinine alone. The harms are not limited to missed diagnoses such as with this case, but more commonly include improper dosing of renally cleared medications, which can lead to dangerous sequelae of medication toxicity. Clinicians for older adult patients ought to view a patient's creatinine skeptically, and more frequently turn to cystatin C when a diagnosis is in question or the patient is at risk for medication toxicity. Health systems may consider running Cystatin C as a standard for measurement of kidney function in older patients.

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B18 Student Presentation
A Unique Case of Recurrent Prosthetic Valve Endocarditis in a Geriatric Patient

L. Zhong,¹ J. O. Jaeger.² 1. *University of Connecticut School of Medicine, Farmington, CT*; 2. *UConn Health, Farmington, CT*.

Introduction: Endocarditis has increasing incidence and higher morbidity and mortality in those over age 65.¹ Recurrent endocarditis is a rare condition that occurs in only 5-10% of endocarditis cases with unknown incidence in older, frail adults.² This is a rare case of recurrent *Enterococcus* prosthetic valve endocarditis (PVE) in an older adult female.

Case Description: An 84-year-old female with a history of aortic stenosis status post transcatheter aortic valve replacement complicated by prior *Enterococcus* PVE (treated with six-weeks IV ampicillin and gentamicin), presented to the Emergency Department for progressive dyspnea. Her exam was pertinent for stable vital signs and diffuse wheezing; no murmurs or poor dentition appreciated. Despite any signs of infection, blood cultures were positive for vancomycin-resistant *Enterococcus*, concerning for PVE given her previous episode one year prior. A transesophageal echocardiogram showed a 2.4 x 3.6 mm dense, nonmobile, calcified mass on the noncoronary cusp, which was the same location of her prior PVE. With no other source of dense high-grade bacteremia, final diagnosis was felt to be recurrent PVE. She was treated with six-weeks IV ampicillin and ceftriaxone.

Discussion: Among patients treated medically for PVE, only 5% had recurrence of PVE and 17.8% were due to *Enterococci*.³ The novelty of this case lies in the rarity of recurrence in medically treated *Enterococci* PVE, lack of common bacteria sources such as dental disease, and an atypical, nonspecific presentation. This unique case underscores the importance of considering endocarditis in the differential for older adults presenting nonspecifically, especially those with prosthetic valves or prior episodes of endocarditis, ultimately enabling prompt diagnosis and appropriate treatment.

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B19 Student Presentation
A Case of a Rare Inherited Thrombophilia Diagnosed Later in Life

A. Trando, N. Sachdev. *University of California San Diego, La Jolla, CA*.

Introduction: Deficiency in protein S, an anticoagulant protein, causes coagulation cascade dysregulation and predisposes to thrombophilia. While many cases are acquired, protein S deficiency may also be congenital. Associated with autosomal dominant mutations in the PROS1 gene, hereditary protein S deficiency affects 3-5% of patients with a personal or family history of thrombosis. Here, we report a case of a patient with a history of multiple venous thromboembolisms (VTEs) who was not diagnosed with hereditary protein S deficiency until later in life.

Case Presentation: A 76-year-old female with a history of three prior deep vein thromboses (DVTs) was seen for a wellness visit. Her first DVT had occurred in her 50's after starting medroxyprogesterone acetate for menorrhagia. Her second DVT also occurred in her 50's after she was immobilized for a left Achilles tendon repair.

The patient's third episode of left lower extremity DVT occurred in her 60's, presumably due to immobility. Each DVT was treated with warfarin. At the visit, family history uncovered that her twin brother had a history of DVT, while a niece and nephew had both been diagnosed with protein S deficiency. Laboratory evaluation revealed decreased free protein S antigen (31%, reference range: 65-145%) and an elevated D-dimer level (397 ng/mL). A venous lower extremity ultrasound showed chronic non-occlusive DVTs in the right proximal femoral vein and left popliteal vein. Given these findings, she was diagnosed with type III protein S deficiency. The patient has since started apixaban 2.5 mg twice daily without VTE recurrence.

Discussion: Our case highlights the value of taking a detailed family history for patients with recurrent VTEs to account for a possible underlying hereditary thrombophilia such as protein S deficiency. Three types of hereditary protein S deficiency have been described, depending on the results of a free/total protein S antigen level and a functional protein S assay. We also emphasize the importance of starting patients with protein S deficiency on appropriate anticoagulation for secondary prevention. Two large phase 3 studies have shown that a reduced dose of apixaban (2.5 mg BID) or rivaroxaban (10 mg daily) for 6-12 months lowers the risk of recurrent VTE without increased bleeding. Given our patient's history of recurrent DVTs, treatment has remained ongoing, demonstrating how extended anticoagulation beyond 12 months warrants an individualized risk vs. benefit assessment.

B20 Resident Presentation
Geriatric Pharmacotherapy Case Series: Unveiling Polypharmacy-Induced Medication Cascade

C. Kim, T. Gurvich. *University of California Irvine, Irvine, CA*.

Background: This case report reviews polypharmacy causing medication cascades. Amidst an intricate interplay of multiple comorbidities and treatments, the patient encountered adverse drug reactions and compounding symptoms, leading to the addition of medications to address the evolving therapeutic challenges. The movement towards achieving age-friendly care incorporates medications as one of the four pillars, which can facilitate deprescribing of high-risk medications and simplifying regimens.

Medications: Empagliflozin 25mg daily, Semaglutide 1mg every week, Insulin degludec 38 units daily, Amlodipine 2.5mg daily, Irbesartan-HCTZ 300-12.5mg daily, Isosorbide Mononitrate 30mg daily, Metoprolol Succinate 25mg, Solifenacin 5mg daily, Mirabegron 50mg daily, Alirocumab 75 mg every 2 weeks, Tenofovir alafenamide 25mg daily, Aspirin 81mg daily, Nitroglycerin 0.4mg PRN, Polyethylene glycol 17g daily, Calcium carbonate 600mg daily, Glucosamine chondroitin 1500-1200mg daily, Vitamin D3 50 mcg daily, 5 OTC PRN pain

Assessment: We present an older adult with an extensive medical history and a complex medication regimen. Upon interview, the patient was found to be experiencing hypoglycemia and persistent urinary frequency, incomplete emptying, and urge incontinence. She reported blood glucose lows of 57 mg/dL and frequently waking up in the middle of the night with hunger. Her hypoglycemic episodes may be due to tight management of diabetes as well as the significantly long half-life of her insulin.

Outcomes: The clinical pharmacy team recommended a multi-faceted approach to rectify cascades. Solifenacin was discontinued due to its high-risk anticholinergic effects. Irbesartan-HCTZ was switched to irbesartan 300mg to reduce diuresis, and empagliflozin lowered to 10mg. Additionally, tight control of diabetes may be attributed to the long half-life of insulin degludec; therefore, it was converted to insulin glargine. Lastly, to compensate for the removal of hydrochlorothiazide, amlodipine was increased to 5mg for optimal blood pressure control.

Discussion: This case highlights the importance of pharmacist involvement in identifying medication cascade in older adults to help deprescribe, optimize medication regimens, decrease the risk of side effects, and improve outcomes.

B21

STI Blindspots in Caring for Older Adults: A Case of Secondary Syphilis

K. Kyi, J. D. Muniak. Geriatrics, University of Rochester, University of Rochester, Rochester, NY, US, academic, Rochester, NY.

Background: In adults age 65 and older, STI incidence has doubled recently with syphilis cases increasing by 32%. [1] Despite this, less than 40% of patients over the age of 50 report discussion of sexual practices with their physician. Ageism is contributing to a lack of awareness of STIs in older adults with many providers avoiding the subject. [2] We describe an older patient with syphilis that went untreated for many months, resulting in diffuse disease requiring hospitalization.

Case Description: A 71-year old male was seen by his PCP for new fatigue and groin pain. The patient was started empirically on azithromycin for UTI without improvement. Over the next several months, he developed progressive fatigue, arthralgias of bilateral wrists and knees, palmar rash, as well as dysuria and a friable penile ulcer. The fatigue and polyarthralgias progressed to the point of requiring hospitalization, where admission history revealed sexual activity with 2 non-monogamous female partners and exam was notable for inguinal lymphadenopathy. STI testing yielded a reactive syphilis screen with positive titer. He started doxycycline with global improvement. His team counseled on safe sex practices prior to discharge.

Discussion: This case illustrates clinicians’ need for open discussion of sexual practice and consideration of STIs in the differential diagnosis, regardless of age. Barriers include lack of time or discomfort on behalf of the clinician and ageist stereotypes (i.e. older adults are neither sexually active nor interested in sex). [4] This is despite the majority of older adults reporting being sexually active with nearly 50% stating that sex was important for quality of life. [5] This patient had classical symptoms of and risk factors for syphilis during outpatient consultation, at which point a frank discussion of sexual history may have prevented later stage sequelae. Thus, a proactive discussion of sexual history is integral to routine care of older adults.

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B22 Resident Presentation

Interdisciplinary Geriatric Care: A Case Study

N. Mashayekan, T. Gurvich, H. Lee. University of Southern California, Los Angeles, CA.

Background: Older adults are frequently exposed to prescribing cascades, polypharmacy, adverse events, and insufficient patient counseling and education, which may result in higher risk of falls, medication-associated cognitive impairment, and hospitalizations. In an interprofessional collaboration between Keck Family Medicine and USC Mann School of Pharmacy, geriatric clinical pharmacists perform pharmacology evaluation with the intention of optimizing safety and efficacy of drug regimens for this vulnerable population. This patient case provides insight into how individualized medication therapy management plays a key role in geriatric patients’ safety, tolerability of medications, and overall quality of life.

Methods: We conducted a comprehensive chart review and interview for a 71 yo female with anxiety, depression, migraine headaches, HTN, GERD, HSV2, allergic rhinitis, and postherpetic neuralgia. Chief complaints included significant fatigue and ineffectiveness of medications. Work-up was done based on diagnoses, chief complaint, medication-related adverse effects, adherence, and medication appropriateness per Beers Criteria. Patient-specific assessment and plan were provided to the referring clinician for review.

Results: 11 interventions were identified; 4 were inappropriate medication administrations, 3 were high-risk medications, 2 were adverse effects, and 2 were other reasons. The patient was taking several high-risk OTC medications (per Beers), which were discontinued due to risk of cognitive impairment and HTN exacerbation. Several medication cascades caused adverse effects, which lead to recommendations to discontinue or lower doses of those medications. The medication list was reduced by 27%.

Conclusion: Pharmacologic evaluation helped identify and resolve polypharmacy, prescribing cascades, and therapy gaps. Interprofessional collaboration in primary care helps achieve shared decision-making with health care providers and patients to prevent reversible medication-related issues. By addressing high-risk medications, polypharmacy, patient preferences, and potential barriers to therapy, we provided recommendations with the patient at the center of her own care. Interprofessional collaboration, which included a comprehensive medication review, allowed us to address each of these pillars and provide patient-centered care.

B23

“Not on the Outside”: A virtual geriatric assessment facilitates release of an incarcerated man with dementia

E. K. Jones,¹ M. Burnett.² 1. Geriatrics, Boston University, Boston, MA; 2. Illinois Prison Project, Chicago, IL.

Background: In 2021, the number of incarcerated people over age 55 was 178,200 in prisons and 50,100 in jails. Incarcerated people over 55 are considered “geriatric” because they accrue disease and disability earlier than the population at large. Prisons and jails lack the expertise, personnel and finances to safely house the aging prison population. Most U.S. states have legal pathways for early release (also called medical parole) in cases of terminal illness, medical incapacitation, or functional impairment. However, the majority of those eligible are not released.

Methods: A medical-legal nonprofit connected a Massachusetts-based geriatrician with a lawyer representing a 71-year-old incarcerated man in Illinois who had developed dementia and severe functional impairment in prison. He was eligible for early release due to his dependence in 5 of 6 ADLs. The physician reviewed his medical records, provider notes, and imaging reports. The lawyer then coordinated a video call in which the geriatrician assessed the client.

Results: The geriatrician found the client to be aphasic, unable to consistently follow one-step commands, and physically frail. In a timed-up-and-go test, it took 25 seconds for the man to rise from sitting, gripping tightly to the table to transfer to his cane, his feet shackled. The geriatrician submitted a written statement including an evaluation of the client’s comorbidities, care needs, and risk of falls with costly injury. The individual won his case and was released to the care of his family.

Conclusions: Geriatricians can play a major role in helping sick or frail incarcerated older adults return to the community. Geriatric assessments can be adapted to a virtual forum, as seen in the COVID-19 pandemic, when clinicians lack access to correctional facilities. Enabling factors include authorization from the facilities for a video call, availability of medical records, lawyers’ understanding of geriatric principles, and medical professionals with knowledge and willingness to engage in this work. Future scholarly efforts should be directed at expanding virtual assessment tools and calculating the cost-effectiveness of early release. Advocacy efforts should focus on educating

physicians about medical-legal partnerships, building networks of geriatricians and lawyers, creating open-source content for physician testimony, and advocating for expansion of early release programs.

B24

Age-Defying Heroics: Alexa, the AI Sidekick, Rescues 93-Year-Old's Hip Fracture Challenge!

v. sirpal,¹ A. Sooriyakumar,² S. Madireddy,² M. Gold,¹ I. Neupane,¹ N. Mujahid.¹ *1. Geriatric Medicine, Brown University Warren Alpert Medical School, Providence, RI; 2. Brown University Warren Alpert Medical School, Providence, RI.*

Introduction:

Elderly individuals strive for graceful aging but face vulnerability during unforeseen emergencies like falls and hip fractures. It can cause mobility loss, poor quality of life, financial burden, and has mortality rates ranging from 14% to 36% within the first year which persists up to a decade.¹ Early surgical interventions within 24 to 48 hours improves survival and reduces complications.¹ This case report delves into the potential of Artificial Intelligence's (AI) to enhance emergency response, timely access to care and reduce morbidity and mortality in elderly patients.

Case Discussion:

A 93-year-old community-dwelling female with history of gait instability, osteoarthritis, hypertension, diabetes mellitus, and atrial fibrillation on Xarelto, had a fall while chasing a grasshopper in her bathroom. After struggling for 45 minutes and was unable to get up, she used an AI-powered device, Alexa, to call her son, who promptly contacted Emergency medical services. She was transported to the emergency room, where an X-ray revealed a right intertrochanteric femur fracture. She underwent right intramedullary nailing on the day of admission and was subsequently discharged within three days of her hospital admission.

Conclusion:

AI-driven technology in geriatric healthcare can expedite access to emergency care and influence the timing of treatment, enhancing the patient's prospects of recovery. The evolving landscape of geriatric healthcare necessitates the collaboration between technology developers, healthcare providers, and policymakers to ensure that AI applications addresses the specific needs and ethical considerations of the elderly population.² This case offers a glimpse into a future where technology plays a critical role in preserving the independence and dignity of elderly patients.

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B25 Resident Presentation

Benzos For the Older Adult: A Case of Catatonia

G. Kallumkal,² T. D. Long.¹ *1. Geriatrics, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Internal Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Case:

An 86-year-old female with bipolar disorder presented after 2 weeks of altered mental status. She had two ED presentations at a local hospital in the prior two months for similar symptoms. During her second ED visit, her daily olanzapine for BPD treatment was discontinued. On presentation, she was hemodynamically stable but only oriented to self. She endlessly repeated the phrases "I'm in a nightmare." She repeatedly pointed at the clock on her wall and any

passing objects. MRI of her brain was notable for mild small vessel changes, but was otherwise normal. Her CBC and CMP were normal. At first, it was presumed that this patient's presentation was delirium on dementia. However, on closer examination, she showed symptoms of staring, stereotypy, verbigeration, rigidity, waxy flexibility, withdrawal, and perservation which raised concern for catatonia (Busch-Francis 17).

Discussion:

Catatonia is a syndrome of motor and behavioral disturbance commonly associated with preexisting psychiatric or neurocognitive disorders. It can present with hyperactivity, agitation, restlessness, or withdrawal. Catatonia is underdiagnosed, especially in older adults and can be misdiagnosed as delirium or dementia. While the pathophysiology of catatonia is unclear, it is theorized that decreased GABAergic activity is associated with the syndrome. Other theories associate it with decreased perfusion of the parietal and frontal cortexes, supported by imaging with decreased blood flow in actively catatonic patients, improving after ECT and resolution of symptoms. First line treatment is IV lorazepam, but some cases are refractory to benzodiazepines and warrant zolpidem or ECT. Catatonia is a highly treatable condition if diagnosed early, but if left untreated results in significant morbidity and mortality. Physicians should have a high index of suspicion and be comfortable with recognizing signs and symptoms of catatonia.

Case Conclusion:

Psychosis remained of concern given her recent cessation of olanzapine. However, given the verbigeration, staring, stereotypy, and grasping/rooting reflex, the diagnosis of catatonia was highly favored. She was challenged with IV lorazepam and showed rapid improvement in symptoms, confirming the diagnosis of catatonia. She remained on a prolonged benzodiazepine taper with continued remission of symptoms.

B26

Delirium or Dementia: Delirium, a Great Masquerader

C. AGGARWAL, P. Mendiratta. *Geriatrics, University of Arkansas for Medical Sciences, Little Rock, AR.*

Background: Distinguishing between dementia and delirium presents diagnostic challenges due to overlapping symptoms. Delirium, an acute state characterized by attention and cognitive alterations, can mimic dementia. A 78-year-old female, initially diagnosed with rapidly progressive dementia, revealed a bilateral chronic subdural hematoma (tSDH) with an acute component. Despite the generally poor outcomes associated with SDH in older adults, the patient demonstrated complete neurological recovery post-craniotomy.

Case Description: The Emergency Department (ED) received a 78-year-old female who presented with altered mental status, dizziness, and difficulties in performing activities of daily living (ADL). Two months prior, she had experienced a fall resulting in a trace of Left Parietal Subarachnoid Hemorrhage (SAH), with subsequent return to baseline within a week. Notably, the patient had been experiencing headaches since the fall, which increased in frequency over the 2-3 weeks preceding her presentation at the ED. The headaches were localized to the right forehead, the site of impact, and were relieved with acetaminophen as needed.

Initially, the patient received a diagnosis of rapidly progressive dementia. Her primary care physician in the community prescribed cholinesterase inhibitor donepezil based on this diagnosis. Despite experiencing symptoms for weeks, her mental status deteriorated over 1-2 weeks prior to the ED visit, leading to challenges in performing ADLs.

In the ED a CT scan of the head revealed bilateral traumatic subdural hematomas (tSDH) with a small acute component on the right side. She was admitted for two weeks for the evacuation of the subdural hematomas and bilateral middle meningeal artery (MMA) embolization. Post-discharge, she demonstrated complete neurological recovery within two months of the surgery. This was evident during

follow-up at our geriatrics outpatient clinic, where she displayed a clear sensorium and no observed cognitive deficits on the Montreal Cognitive Assessment (MoCA).

Conclusion: Delirium, frequently confused with dementia, can manifest following intracranial injuries in older adults. This case highlights the significance of considering delirium in cases of cognitive disturbances. It emphasizes potential favorable outcomes in selected instances of intracranial injuries among the elderly.

B27

Positive Health Outcomes: Addressing Loneliness and Social Isolation in a Multimorbid Older Adult

N. Amjad,¹ U. Ebili,⁴ H. Gabrielle,³ J. A. Hiner.² *1. Geriatric medicine, The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 2. Internal Medicine / Geriatric Medicine, The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 3. The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 4. Family medicine, Mount Sinai Hospital Chicago, Chicago, IL.*

Background: Loneliness and social isolation (LSI) can be a root cause of emotional distress among older adults. Healthcare professionals cannot achieve optimal health goals for patients without screening and addressing for LSI. A 2020 National Academy of Sciences report highlights high prevalence and detrimental health effects of LSI.

Case: We describe a 71 year old male with heart failure, chronic back pain, obesity, and depression seen on house call visits. Initially, patient had uncontrolled depression despite numerous medication trials. He also reported radiating chronic back pain, poorly responsive to years of escalating multimodal therapies including eventual opiates. Patient lived alone in a second story apartment, which he has not left in more than 3 years due to debilitating pain with functional loss. UCLA 3-item Loneliness screening scale in 2021 indicated “most lonely” (9 of 9 points). Patient received an oral steroid trial which led to significant pain relief, resulting in refill requests. Our team’s refills were contingent on his concurrent attainment of a back MRI which required him to leave his home. The experience of re-entering society and socializing outside the home during his hospital MRI appointment sparked a positive change in the patient’s attitude, mood, motivation, and outlook in subsequent house calls visits. He moved to a first floor apartment, which improved his social engagement, and finally pursued cataract and bilateral hip replacement surgeries. Subsequently, he weaned off oral opiate pain medications entirely with pain resolution. Repeat UCLA 3-item loneliness scale score in 2022 was “not lonely” (3 of 9 points).

Discussion: This patient suffered from LSI. Once identified and addressed, he achieved significant health benefits leading to increased mobility, weight loss, and opiate deprescribing. Addressing LSI can lead to improved quality of life, physical and mental health, and avoidance of ineffective treatments and their adverse effects among older adults.

B28

Neurosyphilis: Delirium, Tinnitus, and Exotropia

T. J. Haferkamp, A. J. Landi, A. Buttar. *Geriatrics, University of Chicago Pritzker School of Medicine, Chicago, IL.*

A 66-year-old African American male with history of CAD, epidural hematoma from November 2021, history of right cataract surgery, and prostatitis treated in June 2023 came to the ED for headache and confusion. He also had fatigue, tinnitus, and “whooshing” in right ear, dysuria/polyuria, but otherwise ROS was negative. Neurologic exam with exotropia and vision impairment of right eye. Cranial nerves otherwise unremarkable. He was oriented to person only, with delayed recall and inattention. There was no cogwheel rigidity and he had a normal upward gaze. He had a flat affect and was slightly bradykinetic.

Blood analyses were unremarkable. UA was consistent with UTI. Urine Culture was negative, although collected after antibiotics were given. Blood cultures negative. CT brain without acute findings, but showed encephalomalacia in the right occipital lobe consistent with a prior infarct. CT Abdomen/Pelvis was concerning for cystitis/prostatitis. Infectious Disease was consulted and he was treated with antibiotics for recurrent prostatitis.

Geriatrics was consulted for delirium and checked TSH, B12, and folate which were normal. HIV was negative. Labs were consistent with prior syphilis infection. He had never been treated for syphilis in the past. Given his delirium, tinnitus, and right exotropia, the Geriatrics team was concerned for neurosyphilis with otic/ocular involvement, and discussed this with the ID team who agreed. Since the patient was on DAPT, he was not eligible for a diagnostic LP. After shared decision making, he was started on empiric treatment for neurosyphilis with IV aqueous penicillin G for 14 days. His delirium improved after initiation of penicillin G, and he was discharged with Infectious Disease follow-up. The patient was seen by his PCP 4 weeks after completing treatment, and his delirium resolved.

This case illustrates how syphilis testing should be considered when there is a concern for delirium and/or dementia. If a patient has a contraindication to performing LP, one should consider treating empirically for neurosyphilis if there is high clinical suspicion. CSF-VDRL can be negative in up to one-fourth of patients with neurosyphilis. In our particular case, the patient had resolution of delirium with initiation of IV penicillin G; however, his tinnitus and exotropia had persisted. A comprehensive assessment through a geriatrics lens is critical when evaluating and managing geriatric syndromes in the hospital.

B29

Neurogenic Supine Hypertension With Coexisting Orthostatic Hypotension in Multiple System Atrophy: A Challenge in Management

K. Watthanasuntorn, N. Gunturi. *Geriatric, Rush University Medical Center, Chicago, IL.*

Background

Multiple System Atrophy (MSA) is a rare, sporadic, and progressive neurodegenerative disorder, affecting less than 1% of the population¹. It is characterized by autonomic failure combined with parkinsonism or cerebellar ataxia. Neurogenic orthostatic hypotension (nOH) is a manifestation of this autonomic failure and may coexist with neurogenic supine hypertension (nSH)². Patients with both nOH and nSH experience significant morbidity, and managing these patients is challenging.

Case Description

A 77-year-old male with a PMH of parkinsonian type MSA and old CVA presented to the hospital due to dizziness and a fall. He was taking fludrocortisone 0.2 mg daily, rasagiline 1 mg daily, midodrine 5 mg three times daily, carbidopa 25 mg four times daily and carbidopa-levodopa 25-100 four times daily for nOH. In the hospital, he developed a fever. A septic work up revealed a rhinovirus infection, likely exacerbating his nOH. His midodrine dosage was increased to 10 mg but later reduced to 7.5 mg due to developing nSH with systolic BP readings of 190-200 while lying down. The consultant neurologist recommended head elevation at 60 degrees 0.5-3 hours after each dose of midodrine, along with an abdominal binder and compression stockings, and maintaining head elevation at 30 degrees for the rest of the day. However, the patient experienced significant BP fluctuations and syncope. Midodrine was decreased to 5 mg, and the addition of droxidopa, initially 100 mg then increased to 200 mg three times daily, stabilized his BP. He was discharged after 18 days of hospitalization on his home medications with addition of droxidopa.

Discussion

Managing nSH coexisting with nOH in MSA is challenging and requires interdisciplinary collaboration. In this case, controlling nSH was achieved with nonpharmacologic interventions, such as head

elevation at 30 degrees and timing the last daily dose of nOH pressor medication 3-4 hours before bedtime. Factors like infection or hypovolemia can exacerbate nOH. Management of nOH in this case required both nonpharmacologic strategies and careful medication adjustment.

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B30 Resident Presentation

Myocarditis, myasthenia, and what matters

E. Yang,² E. Hamburger,² K. Mournighan.¹ *1. Geriatrics, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 2. Internal Medicine, UNC Health, Chapel Hill, NC.*

Case: A 77-year-old male with stage N1c melanoma presented to the ED with diplopia, ptosis, neck drooping, and shortness of breath. Symptoms started 2 weeks prior, following his last infusion of nivolumab, an immune checkpoint inhibitor (ICI) and mainstay treatment for melanoma.

In addition to symptoms concerning for myasthenic crisis, studies were notable for a CK of 11,000 and high-sensitivity troponin of 12,000. Suspicion was high for an immune-related adverse event (irAE). He was started on high dose methylprednisolone, intravenous immunoglobulin (IVIG), and plasmapheresis. Within 24 hours, he developed complete heart block and unstable VT requiring CPR and placement of a permanent pacemaker. His course was complicated by respiratory muscle weakness and aspiration pneumonia requiring prolonged intubation.

Goals-of-care were addressed at multiple points during hospitalization. At first, the patient desired to have do-not-resuscitate and do-not-intubate orders. When he rapidly decompensated, a decision was made by the patient, wife, and medical team to instate full code status. The patient remained ventilator-dependent for 3 weeks during which he communicated through hand squeezes. Through this method, he and his wife decided to withhold life-prolonging interventions and he was compassionately extubated.

Discussion: This patient developed myocarditis-myositis-myasthenia gravis overlap syndrome, a rare complication of ICIs with a high mortality rate. Treatment includes IVIG, plasmapheresis, glucocorticoids, and supportive care for respiratory muscle weakness. Notably, ICIs have a comparable efficacy and safety profile between older adults and a younger population. Based on shared decision making, his oncologist individualized his plan with a 50% dose reduction. There is no current evidence to suggest a dose-response relationship between ICI and irAEs and additional research is needed to identify risk factors for developing irAEs among older adults.

Conclusion: This case demonstrates a rare but potentially fatal effect of nivolumab. Despite dose reduction, the risk of toxicity remains. Attempts were made to give autonomy and agency throughout his challenging hospital course. Conversations regarding goals and individualized plans were initiated inside and outside of the hospital setting.

B31

“Doc, I Think I Have A-Fib!” Technology Leading to an Atrial Fibrillation Diagnosis in an Octogenarian

M. Gold, v. sirpal, I. Neupane, S. Raza. *Geriatrics and Palliative Care, Brown University, Providence, RI.*

Introduction: Atrial fibrillation (AF) is a disease known to increase morbidity and mortality. There has been much debate about screening for AF as the disease is often initially asymptomatic. In today's era of increased access to at home medical technology, more devices are available which allow for patient-initiated home screening.

We present a case about the intersection between age, technology and preventative health screenings, which may provide a glimpse into how the next generation of older adults with AF will be diagnosed.

Case: An 87 year old male presented to the primary care office with a chief complaint of concern for AF. He had used his daughter's mobile electrocardiogram (EKG) device and the automated results were interpreted as AF. His medical history included diabetes, well controlled on metformin, hypertension controlled on medication, and premature atrial complexes seen on prior EKGs. He lived independently, walked three miles daily and was still driving. He did report that over the past few weeks he had needed to stop to catch his breath during his walks and that he had ankle edema, both of which were new. He denied chest pain, orthopnea or palpitations. Vital signs with blood pressure 138/70, heart rate 100, and a 15 pound weight gain since the last visit 6 months ago. Physical exam was notable for an irregular pulse, clear lungs on auscultation and 1+ bilateral pitting edema at the ankles. An in-office EKG confirmed the diagnosis of AF. Discussion with the patient about initiation of a rate control medication and, given his stroke risk, anticoagulation was initiated.

Conclusion: In medicine today, shared decision making around health decisions is emphasized. As seen in this case, the older adult population is becoming savvier and more comfortable with technology, and coupled with the increased availability of wearable devices, we will likely see a higher rate of patient-initiated home screening leading to further new diagnoses. As geriatricians, we must evolve with our patients and should continue to counsel them on both the potential risks and benefits from increased screenings.

B32 Resident Presentation

Polymyalgia rheumatica symptoms mimic late-onset rheumatoid arthritis

S. Shu,¹ P. Takahashi.² *1. Family Medicine, Mayo Clinic Minnesota, Rochester, MN; 2. Geriatrics, Mayo Clinic Minnesota, Rochester, MN.*

Background: Polymyalgia rheumatica (PMR) is a common rheumatic disease with peak incidence between ages 70 and 80. The classical proximal muscle symptoms may mimic other disease processes, such as late-onset rheumatoid arthritis and solid malignancies, and must not be overlooked. Here we present a case of an older adult presenting with proximal myalgias refractory to corticosteroid therapy.

Case Description: An 86-year-old woman with a medical history significant for hypertension and chronic kidney disease presented to the geriatrics clinic for evaluation of bilateral shoulder myalgia in absence of trauma nor injury. Physical exam did not reveal swelling or synovitis in the hands or wrists. Laboratory testing revealed elevated C-reactive protein (CRP) to 28.2 and erythrocyte sedimentation rate (ESR) to 45. Her primary physician started prednisone 15mg daily for one month with significant improvement of her symptoms. However, her pain persisted through multiple attempts at prednisone taper. Interval blood tests showed persistent elevations of CRP (43.5) and ESR (45) despite moderate prednisone use. She developed extensive right lower extremity DVT, prompting investigation into malignant causes. CT abdomen pelvis revealed no suspicious solid renal nor hepatic masses. She subsequently developed boutonniere deformity in her bilateral digits, favoring a presentation of late-onset rheumatoid arthritis (LORA). Blood tests revealed positive rheumatoid factor and CCP antibodies. The rheumatology team initiated oral methotrexate 15mg weekly and daily folic acid supplementation.

Discussion: Providers often diagnose PMR; however, this diagnosis can be revised in up to 20% of cases. Bilateral shoulder pain is present in up to 95% of cases of PMR. Similarly, shoulder arthritis has been observed in the early disease course of LORA in up to 23% of cases. LORA will present with more large and proximal joint involvement, rather than classical peripheral polyarthritis of the hands and feet. It is prudent to have a broadened differential with individuals

presenting with PMR symptoms, and even more crucial to consider alternative diagnoses in persistent symptoms refractory to treatment. This case highlights the importance of familiarizing the PMR-like phenotype of LORA in order for early recognition, and the need for further consideration of adverse safety profiles of treatment options for this population.

B33

Small Bites Encouraged – the Bony Difficulty of Dysphagia

A. Y. Kim,¹ B. Zehra,¹ J. Schmoyer,¹ E. Schwab.² *1. Geriatrics Medicine, University of Pennsylvania, Philadelphia, PA; 2. Corporal Michael J Crescenz VA Medical Center, Philadelphia, PA.*

Abstract:

Background:

Disorders of swallowing are common in the elderly population, however, aging by itself rarely causes symptoms from physiologic changes.¹ When evaluating dysphagia, it is important to first differentiate between oropharyngeal or esophageal dysphagia by obtaining a detailed history. In oropharyngeal dysphasia, the symptoms start immediately after swallowing, while in esophageal dysphagia, the symptoms start several seconds after.⁵ The dysphagia evaluation can begin with bedside swallow evaluation by a speech pathologist, and further subsequent imaging modalities can include modified barium swallow, FEES, and/or CT or MRI.

Case Description:

79 yo male with PMH of GAD, asthma, presented to the clinic with concerns for weight loss that was attributed to progressively worsening dysphagia, that was later discovered to be caused by extrinsic compression by a large osteophyte at the C5-C6 spine, highlighting a structural etiology of pharyngeal dysphagia. Other common structural causes of pharyngeal dysphagia are esophageal tumors, webs/strictures, rings, and diverticula, and therefore, must be investigated with endoscopy and CT imaging. While there have been reports of cervical osteophytes causing dysphagia and even dyspnea requiring surgical treatment,^[2,3,4] this patient declined any invasive procedures, and instead, conservatively managed his symptoms with small meals, and alternating bites with sips of fluid, even when barium swallow images displayed a large osteophyte causing a 50% luminal narrowing. Despite this patient's significant obstruction, the patient's weight was stabilized with the help of a nutritionist and speech therapist. Furthermore, a barium swallow exam was sufficient in determining the likely cause of this patient's dysphagia.

Conclusion:

Cervical osteophytes, common in older adults, are frequently asymptomatic, leading to their oversight when they uncommonly cause dysphagia.⁶ This case demonstrates an effective management plan for an elderly patient with dysphagia and could potentially be a strategy for many geriatric patients who wish for a less aggressive approach. In geriatrics it is, therefore, important to go over the age-friendly 5M's and re-establish what matters most to the patient to make sure the treatment plan reflects the patient's goal and care preference.

B34

Chronic Pain: Use of Transdermal Buprenorphine in an Older Adult

P. Rippberger. *geriatrics, Maine Medical Center, Portland, ME.*

Introduction: Treatment of chronic pain in older adults is often complicated by limited options related to the physiology of aging. Buprenorphine is an underused treatment modality for chronic pain in older adults.

Case description: A 91-year-old female with a four-year history of vulvar and pelvic pain was evaluated by specialists including geriatricians, gynecologists, urologists, chiropractors, geriatric psychiatrists, and pain management experts. The pain was characterized by vulvar burning, groin pain and chronic cystitis symptoms and felt to

be multifactorial in etiology. Tylenol and pelvic floor physical therapy were ineffective. She was treated for atrophic vaginitis and vulvar lichen sclerosis with topical estradiol, clobetasol, petroleum jelly and topical lidocaine without significant relief. Urologic treatments included methenamine, fesoterodine, and mirabegron, four rounds of percutaneous tibial nerve stimulation (PTNC), and intra-bladder Botox injection. During a cystoscopy, her bladder was noted to be friable, suggesting interstitial cystitis. She tried Aloe Vera capsules and dietary modifications without improvement. Although intra-bladder dimethyl sulfoxide (DMSO) was considered, she declined and was referred for pain management. She was diagnosed with pudendal neuralgia and prescribed gabapentin, duloxetine, cyclobenzaprine, and vaginal diazepam, none of which gave significant relief. Two nerve blocks and a spinal nerve stimulator provided no benefit. She sought a chiropractor for alternative therapies with hyperbaric oxygen, which was also ineffective. Ultimately, the pain specialist initiated transdermal buprenorphine at a dose of 5 mcg/hr for one month, increased to 10 mcg/hr with significant improvement, then upped to 15 mcg/hr with sustained resolution of the pain at 3-month follow-up. Geriatric psychiatry was consulted for depression complicating her chronic pain and the patient experienced resolution of the depression symptoms.

Conclusion: This case highlights the complexities of managing chronic pain in older adults. As in this case, traditional pain medications such as non-steroidal anti-inflammatory drugs and full agonist opioids are often avoided due to increased risks. Considering transdermal buprenorphine earlier in treatment may be beneficial especially in cases where pain is chronic, multi-factorial and resistant to standard treatments.

B35

Rising tickborne co-infections and the outdoorsy older adult.

M. Donis-Garcia, K. Sharma. *Geriatrics, Morristown Medical Center, Morristown, NJ.*

Introduction:

Lyme Disease (LD) caused by *Borrelia burgdorferi*, is the most common infection transmitted by the *Ixodes scapularis* tick. Co-infections with *Ixodes* borne pathogens such as Babesia have been trending up and pose a serious risk in the geriatric population. Babesiosis is caused by an intraerythrocytic protozoa that when present as a co-infection, can increase the severity and duration of illness of LD. Co-infections are often undertreated and underdiagnosed and can significantly prolong symptomatology until both infections are addressed. We present a case of an outdoorsy elderly woman who presented with atypical symptoms and was found to be co-infected with *Borrelia* and *Babesia*.

Case Description:

A 70-year-old professional landscaper, with a medical history of anxiety, hypothyroidism and chronic diarrhea presented to our practice with a 3-week history of worsening fatigue, drenching night sweats, fever, chills, and an episode of near syncope, but no known rash or tick bite. She was noted to be hypotensive but denied dizziness during the office visit. She was transferred to the ED and laboratory workup was significant for WBC 2.54x10⁹/L, hemoglobin 11.7 g/dL (baseline 14 g/dL), platelets 73 cells/mm³, AST 53 U/L, ALT 77 U/L and Sodium of 130 mmol/L. She was discharged with Doxycycline for suspected LD. She was asked to return to the ED the next day as she was found to have a positive PCR for *Babesia microti* and a positive blood culture for *Staphylococcal* species. LD was positive via Western Blot. Anasplasma and Ehrlichia were negative. Blood culture results were deemed to be a contaminant. She was treated with Atovaquone, Azithromycin for Babesiosis and Doxycycline for concomitant *Borrelia* infection with improvement.

Discussion:

Babesia infections have become more prevalent in the geriatric population and can present as a co-infection with other tick-borne

pathogens, with up to 50% having co-infection with *Babesia* and *Borrelia*. The elderly are increasingly continuing to maintain their outdoor lifestyle and are at risk of being exposed to tick borne illnesses if they reside in endemic areas. With the rise in co-infection with various other tickborne pathogens, the risk of adverse outcomes such as hemolytic anemia and disseminated intravascular coagulation is further compounded in this population. Co-infection should therefore be suspected in patients who have a poor response to treatment or have an atypical presentation.

B36

Managing Cancer Treatment-Related Pain in Older Adults with Substance Use Disorder

X. Liu, R. P. Lau-Ng. *Geriatrics, Medicine, Boston University Chobanian & Avedisian School of Medicine, Boston, MA.*

Background: Opioids remain the standard of care for cancer-related pain, yet disparities persist.¹ Cancer-related pain management in older adults with substance use disorder (SUD) remains challenging and understudied, compounded by undertreatment of pain due to stigma from opioid use.

Case: 73-year-old male, with past medical history of squamous cell carcinoma (SCC) of the tongue, right lung adenocarcinoma, COPD, and SUD in recovery, developed dysphasia, severe throat and neck pain after radiation treatment of his newly diagnosed esophageal SCC. He was hospitalized for failure to thrive, pneumonia, dysphagia and severe odynophagia requiring percutaneous endoscopic gastrojejunostomy insertion, and was discharged to a skilled nursing facility. His pain and respiratory condition worsened due to increasing odynophagia, persistent thick secretions, chronic cough, and recurrent aspiration pneumonia. He was on hydromorphone 2mg twice a day with as needed doses, but was reserved toward any escalation of short-acting opioids or starting long-acting opioids due to his experiences with substances.

Discussion: This case illustrated how pain management can be complex due to medical complications and the patient's social history and past experiences. He took great pride in his role as a peer SUD counselor in the Emergency Department. His prior experiences with substances, however, led to his apprehension toward escalation of opioids and undertreatment of pain.

Conclusion: Multiple barriers can make effective pain management challenging for older adults with SUD. There are patient factors such as internalized stigma related to opioids and underreporting of pain. Other considerations include provider knowledge gap in managing complicated pain syndromes and avoidance of SUD exacerbation.² This case highlights the need for further research in managing cancer treatment-related pain for patients with current or past substance use and destigmatization of appropriate opioid use.

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B37

Shock and Z-drugs: Treating Lorazepam-Resistant Catatonia

M. M. Xu, B. Terry. *Geriatrics, Yale School of Medicine, New Haven, CT.*

Introduction: Catatonia is a psychomotor syndrome characterized by a lack of movement despite the physical ability to do so. First-line treatment is a lorazepam challenge followed by electroconvulsive therapy (ECT) if there is a lack of response or in severe malignant catatonia. However, second-line therapies like zolpidem have been

used in lorazepam-resistant catatonia. Here, we present a geriatric female with acute nonverbal status and slow responsiveness.

Case: A bedbound 75-year-old female with bipolar disorder, mild cognitive impairment, rheumatoid arthritis, and lumbar stenosis presented to the emergency room from a long term care facility for slow responsiveness and nonverbal status associated with fever and bacteriuria. She was initially felt to have hypoactive delirium in the setting of a UTI. Psychiatry was consulted as the patient's psychotropics were initially held due to her presentation. A lorazepam challenge was initiated for decreased verbal responsiveness and a Bush-Francis Catatonia Rating Scale (BFCRS) of 14 but her mental status continued to wax and wane. She received levetiracetam for cortical hyperexcitability seen on EEG and completed a course of acyclovir after a lumbar puncture was consistent with VZV encephalitis. She continued to show signs of catatonia so she was referred for ECT which required probate court approval, and was started on zolpidem and then memantine in the meantime with a slow improvement in oral intake and verbal responsiveness. BFCRS was 11. She continues on ECT with the psychiatry service.

Summary: Catatonia requires at least three clinical features for diagnosis, such as stupor, waxy flexibility, and mutism. A systematic review of catatonia in older adults showed that prevalence varies depending on the setting and diagnostic criteria used, with estimates ranging from 5.5% in liaison psychiatry services using BFCRS to 39.6% in acute psychogeriatric units in the United Kingdom using the DSM-5 criteria. Diagnosis and treatment can be challenging in older adults given the frequent concurrence of delirium and dementia. Second-line treatments like zolpidem have been shown to be effective in case reports of older adults with catatonia.

Conclusion: Catatonia can be challenging to both diagnose and treat in older adults. This case illustrates treating lorazepam-resistant catatonia with zolpidem and memantine in an older female.

B38 Student Presentation

Breaking Barriers, Transforming Care: The VA Caribbean Healthcare System's Success Strategies in Improving Patient Safety through VIONE Medication Deprescribing Methodology

H. Omuya,¹ S. Battar,² L. Garcia-Carmona.³ *1. University of Wisconsin System, Madison, WI; 2. Florida Atlantic University, Boca Raton, FL; 3. Veteran Affairs, San Juan, Puerto Rico.*

Background: Polypharmacy is a global concern. Evidence based medication deprescribing algorithms and scholarly works suggest targeted interventions. The Veterans Administration (VA) launched the VIONE (Vital, Important, Optional, Not indicated, Every medication should have an indication) polypharmacy reduction methodology for older adults in 2016. VIONE medication optimization and safe deprescribing methodology is a novel, simple, practical, visual, and conceptual model. Successfully adopted in 135 VA Medical Centers with varying degrees of adaptation, VA Caribbean Healthcare System (VACHS) emerged as a leading early adopter of VIONE. This study aims to identify the experiences, facilitators, barriers, and lessons learned from the VACHS adoption of VIONE to provide information for knowledge translation to other implementation teams.

Design: This impact case study employs the REAIM framework to illustrate the transformation of portable and innovative ideas into concrete actions and examined outcomes. Data was collected through interviews and implementation dashboards.

Findings: The VACHS implementation team achieved significant deprescribing success between 2020 and 2023, eliminating over 85,900 medications, positively impacting 18,500 veterans, and avoiding approximately \$4.7 million in costs. Their multifaceted VIONE approach encompasses provider aspects (fostering rapport and ongoing education), and patient-centered facets (tailoring holistic interventions, engaging in education and shared decisions, and ensuring a comfortable deprescribing pace). Appropriate follow-up and focused monitoring further contributed to their effective strategies.

Conclusion: Showcasing a commitment to patient-centered care through personalized medication management, the VACHS innovatively implemented and sustained the VIONE model. This study offers valuable insights into the effective implementation strategies crucial for the successful adoption of the VIONE methodology in deprescribing interventions. When applying this knowledge to other VA and non-VA health care systems, it is imperative to carefully consider the unique facilitators and barriers present at each location, ensuring a tailored approach to achieve comparable success.

B39 Student Presentation

Localized AL Amyloidosis of the Breast in a Geriatric Female

N. Renton, R. Amin. *New York University Grossman School of Medicine, New York, NY.*

Introduction: Amyloidosis refers to several disorders in which misfolded soluble proteins aggregate into insoluble amyloid fibrils and accumulate in the extracellular space of various tissues, causing organ dysfunction. Disease can be localized, with amyloid deposits at the site of production, or systemic, with deposits in remote tissues; this distinction informs prognosis and management. In light chain (AL) amyloidosis, clonal proliferation of a single light chain-producing plasma cell results in the accumulation of amyloid fibrils. Although often responsible for systemic amyloidosis, localized AL amyloidosis can occur, with the airway, eye, and bladder being the most common. Localized AL amyloidosis of breast is rare: here we present such a case in an 83-year-old female.

Case Presentation: An 83-year-old Hispanic female with hypertension, type 2 diabetes mellitus, hyperlipidemia, and hypothyroidism underwent screening mammography and was found to have heterogeneous and localized amorphous calcifications in the left breast. Core biopsy showed benign breast tissue staining Congo red positive for amyloidosis. Amyloid fibrils were of the AL subtype (lambda) per mass spectrometry. No evidence of breast malignancy was found. She was referred for investigation of systemic AL amyloidosis and myeloma, with negative results. The patient is awaiting surgical removal of the breast amyloid deposits.

Discussion: Breast amyloidosis was first described in 1973 but remains a rare finding. It is often found in association with primary breast cancer or systemic amyloidosis secondary to hematologic disease. Moreover, localized disease, a rarer finding, is mostly seen in post-menopausal women. Localized breast amyloidosis is often found incidentally on mammography or ultrasound, as amyloid deposits can be calcified and mimic malignancy. While usually asymptomatic, breast amyloidosis can present as a unilateral breast density, breast mass, or skin thickening. Localized breast amyloid fibrils are almost exclusively of the AL variety, most of which are of the lambda subtype. The prognosis for localized breast amyloidosis is excellent: disease can be managed via lumpectomy with conservation of remaining breast tissue; systemic therapy is unnecessary. Although rare, breast amyloidosis should be considered a possible etiology of abnormal mammography findings in older women.

B40

Case Series of Neurological Effects of Bortezomib in Older Adults

J. Cheng,¹ A. Bejjani,² *1. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 2. Hematology/Oncology, VA Greater Los Angeles Healthcare System, Los Angeles, CA.*

Background

Bortezomib, a proteasome inhibitor, is part of first-line systemic cancer-directed therapy for multiple myeloma. It is known to cause sensory neuropathy, but its motor and autonomic effects are not as well-known. A prior case series documented orthostatic hypotension among patients inducted with bortezomib for multiple myeloma (1). These effects are particularly concerning in older adults, as they can

greatly increase fall risk. In this case series, we present two older patients with symptoms of orthostatic hypotension and motor neuropathy after initiation of bortezomib.

Methods

This is a case series outlining the presentation and management of two older Veterans diagnosed with multiple myeloma and underwent treatment with bortezomib at the West Los Angeles VA Medical Center from 2022 to 2023.

Results

In the first case, a 65-year-old man experienced recurrent falls and was found to have severe orthostatic hypotension with approximately a 40 mmHg drop in systolic blood pressure with position change. Although the man had a long-standing history of type 2 diabetes mellitus, his symptoms occurred in May 2022 after initiation of bortezomib, cyclophosphamide, and dexamethasone (CyBORd) in April 2022. Medication review demonstrated no other high-risk medications, including anticholinergics, and no anti-hypertensives were prescribed at the time. His symptoms improved with conservative management, including compression stockings. In the second case, a 71-year-old man experienced myoclonic jerks on the left side of his face and hand in July 2022 after initiation of bortezomib in May 2022. The patient also had a history of well-controlled type 2 diabetes mellitus and end-stage renal disease on hemodialysis, but he never experienced symptoms like this during dialysis sessions. His symptoms persisted despite dose-reduction in therapy, and eventually, he transitioned to lenalidomide. The myoclonus eventually abated in November 2022 after cessation of bortezomib.

Conclusions

Bortezomib is part of first-line treatment for multiple myeloma. Its effects in older adults continue to be discovered, and dysautonomia and myoclonus can be presenting signs. Further research is needed to assess the risk in older adults, as they can increase occurrence of falls.

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B41

“The house doesn’t fall when the bones are good” - Hip fractures among centenarians.

J. B. Liu. *Geriatrics, Beth Israel Deaconess Medical Center, Boston, MA.*

Background

With the aging population on the rise, the incidence of hip fractures (HP) among centenarians is increasing. The effective management of HP by orthogeriatric units has reduced the in-hospital mortality rate among centenarians to 3.2%. While in-hospital risks related to age are immutable, accurate risk assessment by providers is crucial for preparedness in the event of complications. In this context, we present the outcomes of three centenarians admitted to an orthogeriatric unit for HP treatment.

Case 1

A severely frail 102-year-old female with severe dementia and hypertension presented from the nursing home after a fall resulting in a left proximal femur fracture. Intramedullary nail fixation (INF) was performed within 72 hours. Her hospital course was complicated by delirium. She was discharged on postoperative day (POD) 3 to the nursing home.

Case 2

A mildly frail 102-year-old female with mild cognitive impairment, hypertension, and hyperlipidemia presented from home after a fall, leading to a left intertrochanteric HP. INF was performed within 48 hours. The hospital course was complicated by paroxysmal atrial fibrillation, and she was discharged to acute rehab on POD 3. She died one month after hospital discharge due to acute mesenteric ischemia.

Case 3

A severely frail 104-year-old female with mild dementia, hyperlipidemia, and hypothyroidism presented from home after a fall, resulting in a left intertrochanteric HP. She underwent INF within 24 hours. Her hospital course was complicated by delirium, acute hypoxic respiratory failure, and shock. She died on POD 9.

Discussion:

As demonstrated in Case 3, respiratory complications are critical contributors to in-hospital mortality. Interestingly, centenarians do not exhibit an elevated risk of in-hospital cardiovascular events compared to octogenarians. This observation may be attributed to age-related reduction in the metabolism of anticoagulants used in venous thromboembolism prophylaxis. Influenced by injury severity and the individual limited biological capacity to recover from stressors, Case 2 highlights the rise in mortality to 10% within one month post-HP surgery. However, survival curves converge with the age-matched average population after four months, indicating the resilient biological adaptability of those who endure. Nevertheless, functional recovery remains challenging, with only 5% returning to pre-hip fracture functional status, as seen in Case 1.

B42

Conservative approach to back pain back fires

J. Trinidad, E. G. Granda. *Geriatrics, Atlantic Health System Inc, Florham Park, NJ.*

Introduction: As the geriatric population and life expectancy increase, so will the number of visits to physicians. Back pain is one of the most common reasons for visits and the decision to perform imaging will arise. While imaging is not recommended for most patients, it remains an important consideration in select cases.

Case presentation: 83 year-old man with a history of bladder tumor resection and recent unremarkable cystoscopy presents with right lower back pain of two weeks duration precipitated by heavy lifting. The pain is non-radiating and without paralysis or paresthesia. His pain is reproducible with palpation of the right sacroiliac joint and with ipsilateral leg raise. There are no neurologic deficits on physical examination.

Intervention: He is treated conservatively with nonsteroidal anti-inflammatory agents, physical and occupational therapy. Despite six weeks of conservative management, there is no improvement. He receives a right trigger point corticosteroid injection. Plain films and magnetic resonance imaging are obtained.

Results: Lumbar and pelvic plain films show degenerative changes. Magnetic resonance imaging lumbar spine shows minimal disc bulging L4-L5 and L5-S1 without evidence of disc herniation, canal or foraminal narrowing. Abnormal bone marrow signal involving S1 vertebral body, the right sacral ala, right iliac bone and L5 is seen. Findings are highly suspicious for neoplastic process. A right iliac crest bone biopsy is obtained, and pathology is consistent with Urothelial Carcinoma.

Discussion: Here we have a case of Urothelial Carcinoma diagnosed incidentally on magnetic resonance imaging of the lumbar spine after a presentation of back pain. Back pain is a common presentation in the elderly, and it is important to consider uncommon diagnoses when conventional interventions fail. In the absence of red flags, it is common practice to avoid imaging in the setting of back pain within the first several weeks of presentation. While imaging is generally avoided, it should be considered in select geriatric patients with longer life expectancies and expanding cancer diagnoses.

B43 Student Presentation, Encore Presentation

Functional and cognitive decline in a patient with bipolar disorder: maintaining a broad differential

M. Dexter,¹ R. Stetzer,² Z. Robbiano.² *1. Albany Medical College, Albany, NY; 2. Albany Medical Center, Albany, NY.*

Introduction: Catatonia is a psychomotor syndrome that can result from medical conditions, psychiatric illnesses, and medications. Features of catatonia overlap with multiple other clinical syndromes. Lack of familiarity with catatonia has been found to contribute to underdiagnosis (1). We report a case with a complex differential diagnosis including catatonia, drug-induced parkinsonism (DIP), and neurocognitive disorder.

Methods: This is a case report of an 80-year-old man who presented for a geriatric memory evaluation due to functional decline in the four months post inpatient treatment for mania due to bipolar disorder. Since hospitalization, he had intermittent aphasia, gait disturbance, short-term memory decline, and increased ADL dependence. During this time his olanzapine dose was increased for insomnia. Upon evaluation he scored 13 on the Bush-Francis scale and 19/30 on the Montreal Cognitive Assessment.

Results: This case presents a geriatric patient with features of catatonia that overlap with DIP and neurocognitive disorders. Rigidity and worsening mobility could indicate catatonia or DIP. Withdrawal and echolalia in the setting of cognitive decline raises concerns for both catatonia and neurocognitive disorder. The anticholinergic side effects of olanzapine likely contributed to his cognitive impairment. Following olanzapine dose decrease, his Bush-Francis scale score decreased to 2. Ongoing follow-up will help determine the degree of medication contribution to his continued rigidity and cognitive function.

Conclusions: In this case report, we have shown an approach to include catatonia in the differential for a geriatric patient presenting with functional and cognitive decline. Catatonia is frequently underrecognized, especially in the geriatric population, and prognosis benefits from prompt treatment (2). This warrants the consideration of catatonia as part of a broad differential when older adults with mood disorders present with neuropsychiatric signs.

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B44

It's Not the UTI: Missed Diagnosis in a Non-English-Speaking Older Adult

J. A. Woodard. *Geriatrics & Palliative Care, Medical College of Wisconsin, Milwaukee, WI.*

Hip fractures are a devastating result of falls in older adults and affect over 300,000 people per year in the US. Prompt recognition and treatment to maximize pain control and mobility after a hip fracture is vital in reducing morbidity.

Ms. L is a 92-year-old South Sudanese woman with history of HTN and untreated glaucoma who presented to the ER for decreased oral intake, increased fatigue, and falls at home. She only spoke Juba Arabic and no translation services were available for her dialect during admission. Her family was not available for translation or collateral history during initial assessment. She was diagnosed with Covid-19, acute kidney injury and a urinary tract infection. A CT head showed a chronic left PCA infarct but no acute abnormality. Her documented physical exam was normal.

When her caregiver arrived, they described her leg as having increased swelling and tenderness to palpation. A knee x-ray revealed severe osteoarthritis but no fracture. She was admitted for treatment of UTI, COVID, and AKI. PCP notes document ambulation with a walker and no cognitive impairment. Her visual and auditory impairment and language barrier impaired her ability to interact with her care team. She was not seen by physical or occupational therapy and received acetaminophen as needed for pain. On hospital day 3, her team became concerned she may have gout due to an elevated uric acid level and consulted rheumatology.

On evaluation, her right thigh was grossly larger than her left and her right leg was shortened and externally rotated, with marked pain to palpation in her thigh and knee. Hip imaging was obtained which revealed a spiral femur fracture of her right leg. She underwent surgical repair and was discharged to a sub-acute rehabilitation facility.

In this older patient with sensory and language barriers, a thorough physical examination, collateral history, and proper documentation is of utmost importance. By failing to understand her prior functional status and assuming she was bedbound, the diagnosis of a spiral femur fracture was missed by multiple medical teams for over three days. Her “altered mental status” was presumed secondary to both COVID-19 infection and a UTI, while in likelihood it was related to hip fracture with undertreated pain and inability to communicate her needs to the healthcare team.

B45

Colonic Inertia in severe Alzheimer’s dementia

I. S. Kim,¹ D. Anderson,² M. Johnson,² K. Marsh,² C. I. Constantini,³ D. Lang,¹ L. Dahl.¹ *1. Geriatrics, University of North Dakota, Grand Forks, ND; 2. Internal Medicine, University of North Dakota, Grand Forks, ND; 3. Ross University School of Medicine, Miramar, FL.*

BACKGROUND

Neurogenic GI problems can occur at any point in the trajectory of neurodegenerative disorders. This case describes an example of colonic inertia with Alzheimer’s Disease.

CASE

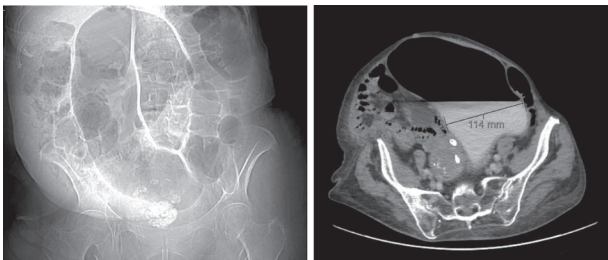
91F with severe Alzheimer’s dementia and hypertension presented with abdominal distension and no pain. Her abdomen was severely distended, had no bowel sound, was tympanitic, and exhibited no pain with palpation, and no rebound tenderness.

X-ray and APCT showed sigmoid volvulus with calcified uterine fibrinoids. A colonoscopy revealed a massively dilated colon without abnormal mucosal lesions. She was managed with a colonic decompression tube but each episode of tube discontinuation led to distension reoccurrence. A colostomy was made which ultimately resolved the abdominal distension.

CONCLUSION

While the pathophysiology of large bowel inertia is not fully known, age related changed in bowel history such as fibrosis and loss of luminal muscle can interact with disease-associated parasympathetic neuropathies to create large bowel motility issues.

A colostomy was made for palliative care with colonic inertia associated with Alzheimer’s dementia.



X-ray and APCT presenting sigmoid volvulus and severely dilated bowel with calcified uterine fibrinoids

B46 Student Presentation

Vascular Corticobasal Syndrome in Patient with Multiple Unwitnessed Falls

M. Nicot-Cartsonis, R. Tom, A. Rotkiewicz. *The University of Texas Medical Branch at Galveston School of Medicine, Galveston, TX.*

Corticobasal syndrome (CBS), an atypical parkinsonian syndrome with behavioral disturbances, is characterized by symptoms of extrapyramidal and higher cortical dysfunction. CBS may result from various etiological factors affecting the central nervous system. Underlying pathologies contributing to CBS include corticobasal degeneration, progressive supranuclear palsy, tauopathies, vascular issues, traumatic brain injury, Alzheimer’s, frontotemporal lobar degeneration, and prion diseases. Vascular pathology in CBS may result from large vessel pathology, ischemic or embolic strokes, or small vessel disease.

CBS is a clinical diagnosis; it poses significant diagnostic and therapeutic challenges in older adults due to its rarity, protean clinical presentations, and frequent comorbidities. Conventional brain MRI lacks a specific diagnostic marker for PD or AP.

We present a case of a 78-year-old male with a history of two major cerebrovascular accidents (CVAs) occurring 3 and 4 months earlier, alcohol overuse, and recent COVID-19 infection. Admitted to the hospital following consecutive falls, he exhibited confabulation; asymmetrically increased muscle tone; cogwheel rigidity; severe action myoclonus; limb, speech, oculomotor, and bucco-facial apraxia; tremor; freezing gait; and cognitive deficits. Ophthalmological examination revealed optic nerve pallor and a relative afferent pupillary defect, suggesting vascular optic nerve pathology. Brain MRI showed old embolic infarcts and a moderate degree of global cerebral volume loss with microvascular ischemic changes. After starting carbidopa/levodopa, only myoclonus improved.

This case highlights the abrupt onset and rapid progression of vascular parkinsonism of CBS type unresponsive to L-DOPA. The prognosis is unfavorable due to irreversible brain damage. The case underscores that the time gap between a stroke and neurological symptoms should not dismiss the possibility of vascular Parkinsonism or CBS. Silent CVAs may accumulate, presenting suddenly and posing challenges in recognition and treatment. Vascular CBS exhibits a diverse array of symptoms, contributing to diagnostic complexity. The coexistence of other causes of clinical symptoms blurs the clinical picture, making diagnosis challenging.

This multifaceted case serves as an illustration of a rare vascular subtype of CBS, emphasizing the need for nuanced understanding and recognition in clinical settings.

B47

Multi-Organ Septic Emboli, an Ominous Complication of Group B Streptococcus Endocarditis in a Geriatric Patient.

K. A. Moshiri, M. Mahmoodian, M. Shaver, G. Treves. *Geriatric Medicine, Eisenhower Health, Rancho Mirage, CA.*

Background:

Despite the general belief, most infections with Group B Streptococcus (GBS) occur in geriatric patients and are unrelated to pregnancy. Geriatric patients account for >40% of persons with invasive GBS disease and for >50% of GBS-linked deaths in the US. We present a case of invasive GBS infective endocarditis (IE) with multi-organ septic emboli in a diabetic geriatric patient who dramatically improved with combination of antibiotic therapy and surgery.

Case:

69-year-old male with DMII, HTN, HLD was admitted to the hospital for sepsis and GBS bacteremia secondary to right 3rd toe osteomyelitis. Patient underwent toe amputation, started on IV ceftriaxone and was transferred to Skilled Nursing Facility (SNF) for rehab and wound care. During his SNF stay, he was transferred to ED for AMS. **Meds:** Losartan, ASA, Lovastatin, Insulin, Metformin, Glimperide, Gabapentin. **Vital Signs:** stable. **Physical Exam:** A&O x1, Slurred speech, LUE weakness, hyperpigmented lesion on lower lip, no murmurs. **Labs:** A1c:10.3, Blood culture: +ve GBS, and no leukocytosis. **Hospital Course:** Imaging showed multi-organ septic emboli to brain, spleen and right kidney. Dermatology confirmed the lip lesion as venous lake. Transesophageal echocardiogram (TEE) confirmed mitral valve endocarditis. Prior transthoracic echocardiogram (TTE) from previous hospitalization showed mitral valve annular calcifications (MAC). IV ceftriaxone was continued and patient underwent mitral valve replacement (MVR). Patient dramatically improved and was discharged to acute rehab.

Discussion:

IE caused by GBS is a rare invasive infection with a mounting incidence in the geriatric population. DM, cancer, HIV, MAC, cirrhosis, and CVD are known risk factors. Although complications

such as embolization, heart failure, and significant mortality have been reported, multi-organ septic emboli associated with GBS endocarditis have been rarely documented. TEE is the preferred modality for diagnosis. Antibiotic therapy combined with surgery is the standard of care with promising results.

Learning Points:

Most cases of GBS infections are unrelated to pregnancy and the majority occur in geriatric patients.

Multi-organ septic emboli could be a devastating complication of GBS endocarditis.

The combination of surgical and medical interventions could lead to optimal outcomes in view of higher incidence rates of large vegetations and embolic events.

B48

Value of reducing sympathomimetic medications in older adults

Y. Cui, G. Azhar, J. Wei. *Geriatrics, University of Arkansas for Medical Sciences College of Medicine, Little Rock, AR.*

Sympathomimetic medications have long served in managing depression and fibromyalgia among patients. Despite their utility, these drugs carry a notorious reputation for their adverse cardiovascular impact. Ignoring these side effects may precipitate severe cardiovascular complications.

We present a case of a 73-year-old woman with a 20-year history of fibromyalgia, anxiety, depression, hypertension, and paroxysmal supraventricular tachycardia (PAT), S/P pacemaker, who sought evaluation at the geriatric clinic for memory assessment. Over the past two decades, she frequented the emergency room due to palpitations and supraventricular tachycardia. Despite PAT, a definitive diagnosis of atrial fibrillation had been overlooked, leading to a lack of anticoagulation. Her anxiety during PAT episodes and depression were managed with escalating doses of duloxetine. Recent consultation with a cardiologist diagnosed atrial fibrillation, resulting in treatment with apixaban.

Her medication regimen comprised sotalolol 160mg twice daily, diltiazem 180mg daily and 30mg as needed, gabapentin 300mg daily, ranitidine 150mg nightly, hydrochlorothiazide 12.5mg daily, duloxetine 60mg daily. ADLs and IADLs were unremarkable.

Physical examination revealed BP 149/74 mm Hg, HR 83 bpm, a slight perioral bluish tinge, cold extremities, and mild cyanosis at fingertip tips. Neurological examination was unremarkable except for mild findings. A non-MRI compatible pacemaker and contrast brain CT yielded negative results. FDG18 PET CT indicated mild hypometabolism in the left inferior-parietal lobe, suggestive of vascular damage.

A diagnosis of Mild Cognitive Impairment with anxiety and mild depression, primarily vascular in origin due to atrial fibrillation, was established. Earlier anticoagulation might have benefitted the patient, potentially identifying the PAT episodes as atrial fibrillation.

Duloxetine, acting as a sympathomimetic, could have contributed to vasoconstriction, anxiety episodes, PAT, and frequent ER visits. Management in the geriatric clinic emphasized the gradual discontinuation of duloxetine, transitioning to sertraline, resulting in marked improvement in anxiety, depression, and energy levels in subsequent follow-ups. Concurrently, vasoconstriction and cyanosis resolved.

This case underscores the potential of sympathomimetic drugs in older adults to induce severe adverse cardiovascular effects and potentially influence cognition.

B49 Resident Presentation

Elephant in the Room: Addressing post-traumatic stress in the Geriatric Veteran

L. Leigh, S. Habayeb, N. Dubowitz. *Washington DC VA Medical Center, Washington, DC.*

Introduction: An 81 year old patient in the Geriatric clinic presented with untreated post-traumatic stress disorder (PTSD) and comorbid alcohol use disorder (AUD) complicated by dementia. The case highlights the complexity of caring for older Veterans with resurgence of PTSD symptoms and the difficulty in ascertaining illness history in the presence of dementia.

Case Description: 81 year old African American male Vietnam veteran with dementia, PTSD, and AUD presented to the Geriatric clinic after recent hospitalization for witnessed seizure which occurred after two days without alcohol intake. In the past 18 months he had been hospitalized three times including once for alcohol withdrawal, yet his PTSD was not addressed. The Veteran had previously been offered substance abuse rehabilitation program (SARP) by his PCP but declined. Obtaining accurate history of alcohol intake was complicated by the Veteran’s dementia. Per report from his wife, he drank all day for the last three years and was having war-related nightmares three times per week. A thorough chart review, over 25 years, revealed severe PTSD due to his military service. He had been managed successfully on medication and psychotherapy. However, his prescriptions had expired and the Veteran was lost to follow up with Psychiatry in late 2019. During this lapse, he began consuming alcohol again. With multidisciplinary collaboration, including the Geriatric PCP, SARP provider, and Geriatric pharmacist, medications and psychotherapy were restarted and patient has remained sober. Close follow-up with the Veteran was crucial for his success.

Discussion: PTSD, a common comorbidity for veterans, is often overlooked as a primary issue in geriatric patients with dementia. Veterans with PTSD have a higher likelihood of comorbid AUD. Geriatric patients are often not assessed for PTSD nor seek treatment from mental health specialists, but rather seek treatment in primary care. While there is some evidence available for AUD or singularly occurring PTSD in the geriatric population, there is minimal research for comorbid PTSD/AUD. Geriatric patients with histories of trauma should continue to be evaluated for signs and symptoms of PTSD as they age. A thorough chart review for geriatric patients with complex medical histories is vital; the strength of the Veterans Affairs electronic medical record was evident in this case with the ability to look back more than 25 years in a single patient’s chart.

B50

“Heat of the Night”: Addressing Increased Libido in Older Women

D. Hovern,¹ L. R. Hersh.² *1. Geriatrics, Jefferson Health, Wayne, PA; 2. Family & Community Medicine, Thomas Jefferson University, Philadelphia, PA.*

Abstract: It is well known and researched that older adults are sexually active and have sexual health concerns to discuss with their physicians, but they are rarely addressed during patient visits. Half of sexually active older women report a distressing sexual problem.¹ The most reported issues in older women are low desire and genitourinary syndromes.² Although the incidence of sexual dysfunction increases with age, this appears to be due primarily to health problems, medications, and the lack of available partners rather than to age itself.¹ There is limited research around increased sexual drive in older adults, especially in older women.

Introduction: JC is a 71-year-old female who presented to her geriatrician’s office for a preventive visit. At the end of the encounter, she requested medication to suppress her desire to feel the “heat of the night.” JC had discussed her increased libido with her sister, who suggested this was “not normal” in a woman her age. JC was counseled that sexual desire and expression is normal and counseled on safe sex practices.

Discussion: Although physiologic and psychosocial changes associated with aging predispose women to sexual dysfunction, most older women view sexuality as an important part of health and well-being.¹ Despite this, only 22% report discussing sex with physicians since the age of 50 and the majority of conversations are initiated by patients.² There is little research assessing sexuality and sexual function in post-menopausal women and existing data largely focuses (and perpetuates a narrative) on global sexual dysfunction. A number of studies, however, highlight positive changes associated with aging: women greater than 80 years old report higher frequency of orgasm satisfaction, higher self-confidence, increased self-knowledge, and better communication skills.⁶ Attitudes towards sexuality are influenced by stereotypes and tropes—within the general public and health-care communities. The onus lies upon providers to initiate discussion and normalize the expression of sexuality in aging populations.

Conclusion: Older women want to discuss their sexual health with their physicians, but it is rarely addressed. These discussions are important to dismantle sex related myths that may be propagate shame and negatively impact quality of life in older adults.

Resource Link: https://docs.google.com/document/d/1jBkLpswt_CWAIMI21vunCtZifipuogMWsYRZJ0Lu4hU/edit

B51

Biting off more than we can chew: A case report on mistaking hypoxic respiratory failure from upper airway obstruction by aspirated dentures for aspiration pneumonia.

S. Borda, UPMC St. Margaret, Mars, PA.

Background: Aspiration pneumonia is often seen in geriatric patients and is associated with frailty and complex multi-morbidities. Dysphagia increases the risk of aspiration pneumonia. Many geriatric patients are edentulous and have dentures, which provide functional and cosmetic benefits. Several reports have discussed complications of ingested dentures including dysphonia, dysphagia, hemoptysis and even septic shock. In this report we review a case of hypoxic respiratory failure due to aspiration of the patient’s dentures.

Case: An 84-year-old female with history of PE, lung nodule, COPD on O₂, and obesity presented from long term care with acute on chronic hypoxemic respiratory failure.

Initially in moderately severe respiratory distress, lungs with rhonchi bilaterally. COVID, flu and RSV negative. Initial CXR read mild atelectasis at left lung base. EKG showed sinus tachycardia. Patient was placed on BiPAP and ceftriaxone for presumed aspiration pneumonia and admitted with sepsis. CTA was negative for PE, showed bilateral lower lobe mucus plugging with atelectasis. Repeat evaluations by speech therapy demonstrated impaired ability to mobilize secretions to oral cavity for suctioning and she was kept NPO and on IV fluids. Patient improved clinically during hospitalization with improved oxygenation and alertness. Given persistent secretions, CT neck was obtained on day 5 to rule out oropharyngeal obstruction. This revealed a foreign body which was found to be patient’s partial dentures in the posterior oropharynx overlying the vocal cords. The dentures were removed by bedside bronchoscopy with clinical resolution of her symptoms.

Discussion: The presence of a foreign body in the airway should be considered for geriatric patients or others with increased risk of oropharyngeal dysphagia presenting with acute respiratory symptoms. In patients with dental hardware, imaging and physical exam should be reviewed to monitor placement. Additional considerations for hospitalized patients include daily charting of accessories such as dentures, hearing aids, eyeglasses or assistive devices. The patient in this case ultimately returned to a long term care facility in stable condition but could have potentially spent fewer days hospitalized or requiring assistive respiratory measures if the oropharyngeal foreign body had been discovered upon admission through careful imaging review and questioning about her dentures.

B52

Atypical Lewy Body Dementia-Induced Neurocognitive Decline Masquerading as Carbon-Monoxide Poisoning

M. Awan,¹ G. Finney,² N. Patel,¹ E. Dzielak.¹ 1. Geriatric Medicine, The Wright Center for Graduate Medical Education, Scranton, PA; 2. Neuropsychiatry, Geisinger, Wilkes Barre, PA.

Introduction:

Parkinson’s disease is a progressive neurodegenerative disorder presenting with motor symptoms. In Parkinson’s disease dementia, the cognitive symptoms develop well after motor symptoms. In dementia with Lewy bodies (DLB), the dementia and motor symptoms develop within one to two years of each other. Delayed neuropsychiatric syndrome (DNS) following carbon monoxide poisoning includes a varying degree of cognitive deficits, personality changes and movement disorders. DNS develops in 15 to 40 percent of patients with significant CO exposure.

Case:

An 80 year-old male with PMH significant for CAD, DJD, hearing loss, hyperlipidemia and prediabetes started to have worsening memory back in 2018. Subsequently in 2020 changes in executive functioning, attention and concentration started. After an at-home incidence of CO poisoning in 2021, he experienced a decline in function and performance which began acutely. Over time, his neurocognitive function has progressively worsened, as demonstrated by a change in his MMSE score from 24/30 in 2022 to 16/30 in 2023.

After the incident of CO poisoning, gait disorder symptoms began with the patient experiencing shaking in his legs prior to initiating steps. Then he developed freezing gait and started taking short steps. He had multiple falls, mostly backwards. Muscle tone was increased in his neck and he developed bilateral cogwheel rigidity in arms. Reflexes were weak in all extremities and no pathological reflexes were noted. Facial expressions were flat with reduced blinking and he exhibited micrographia.

Conclusion:

The progressive decline in the patient’s neurocognitive and neuromuscular function as indicated by a decrease in MMSE score, worsening of motor symptoms and the fact that memory and executive function problems preceded the incidence of CO poisoning in 2021 are more consistent with atypical Dementia with Lewy bodies than CO-induced Delayed Neuropsychiatric syndrome. However, it is evident from his history that his neurocognitive and motor function decline has worsened following the CO poisoning incident. Neuroimaging was nonspecific, which it can be for both causes.

B53

Aural Myiasis in the Setting of a Ruptured Tympanic Membrane

C. Hortelano, F. Perez. Icahn School of Medicine at Mount Sinai Brookdale Department of Geriatrics and Palliative Medicine, New York, NY.

BACKGROUND

Aural myiasis is an infestation of the ear that starts when a female fly lays its eggs in the ear canal, typically in dead or decaying organic matter. The eggs hatch within a day and the larvae live and feed where they are laid. It is very rare in the United States, usually occurring in the setting of recent travel to tropical areas. Other risk factors are old age, cognitive deficits, lower socioeconomic status, poor personal hygiene, and neglect. Otitis externa and intracranial infestation are known complications. We present a rare case of aural myiasis in Manhattan, NY.

METHODS

An 86-year-old female with a history of major neurocognitive disorder presented with right ear pruritus, otorrhea and otalgia for three days. She had a history of right mastoid surgery and had a

perforated tympanic membrane since. An external exam of the right ear showed erythema on the skin overlying the mastoid process and serosanguinous discharge at the concha. Ooscopic exam revealed live maggots in the ear canal. She had no history of recent travel.

RESULTS

Due to a perforated tympanic membrane, she was deemed high risk for complications and was sent to the Emergency Room. Bloodwork revealed leukocytosis with neutrophilia and monocytosis. She was given intravenous Levofloxacin and Otolaryngology (ENT) was consulted. Upon ENT evaluation, she underwent larvae extraction by filling the right ear canal with mineral oil prior to suctioning. Ten maggots were removed. She had signs of otitis externa and was discharged with antibiotic otic drops and oral antibiotics. Ooscopic exam during her ENT follow up showed an open mastoid bowl in the right ear with no larvae. Follow up with her geriatrician elicited a history of daily greenhouse exposure in her home.

CONCLUSION

A perforated tympanic membrane is not a contraindication for ear irrigation, nor did it need extensive diagnostic or treatment procedures in this case. Prompt removal of the larvae and close follow up with ENT is needed to prevent progression and assure resolution. Due to delay of care and lack of insight commonly seen in patients with cognitive deficits, they are at high risk for complications. This patient's greenhouse exposure likely increased her risk for infestation. Thus, risk factors and possible contributing factors such as living conditions must be investigated to prevent recurrence.

B54

The Role of Geriatric Assessments in Pre-transplant Evaluations for ESRD: A Case Study

D. Hovern, B. Salzman. *Geriatrics, Jefferson Health, Wayne, PA.*

Introduction: It is estimated that 40% of patients worldwide on dialysis are older than the age of 65.¹ Renal transplant is the preferred treatment for ESRD given improved QOL and survival over continuing hemodialysis.¹ In the past decade, the number of new registrants on the transplant list aged 50-69 has doubled and the number over the age of 70 has increased more than fivefold.² Despite survival benefits for older adults undergoing transplant, there are significant risks for morbidity and mortality.² Given these risks, comprehensive geriatric assessments should be considered for older adults undergoing renal transplant evaluation.

Case Report: TD is a 76-year-old man with HTN, T2DM, PD, and ESRD on peritoneal HD referred to geriatric assessment by his nephrologist as part of his transplant evaluation. TD underwent cognitive testing, including a MoCA that was consistent with Mild Cognitive Impairment. He was deemed frail by Fried frailty phenotype with a Lee Index suggesting 45% 4-year mortality. Given his medical complexity and frailty, he was deemed high risk for complications of renal transplant and may not obtain mortality benefit.

Discussion: There is no age limit for access to renal transplant in the United States.² Older patients who undergo kidney transplant have improved survival rates compared to those who remain on the wait list. Yet, older age is associated with higher mortality rates in the post-transplant period. 90-day and 1-year mortality rates for those aged > 60 years are double that of younger transplant recipients.³ Predictors of outcomes for older adults undergoing kidney transplant have not been well described. As a result, many older adults on the transplant list will not have survival benefit from transplant.³ Cognitive impairment is an additional concern in patients with ESRD, especially if they are undergoing transplant evaluation. Impairment in cognitive function can impair the ability to comply with complex medical regimen, frequent clinic visits, and adapt to medication adjustments are vital to the success of the transplant.³

Conclusion: Older adults face additional challenges to kidney transplantation. Comprehensive geriatric assessments, including

cognitive evaluation, can provide insight into optimization of medical conditions and help transplant teams anticipate post-transplant complications.

Resources link:

https://docs.google.com/document/d/11789jOmAlaacJwXhYXzd8WVJcD4mpgfM87h6_0rxus/edit?usp=sharing

B55

“A ‘Punch’ for Parkinson’s”

J. Clement, C. Guidry, S. Shanmuganathan. *Geriatric Medicine, LSU Health New Orleans, New Orleans, LA.*

Synucleinopathies are progressive neurodegenerative disorders with mixed clinical features, which includes Parkinson’s Disease (PD). These are characterized by the abnormal deposition of phosphorylated alpha-synuclein (α) aggregates within neurons of the nervous system. This accumulation interferes with cell structure and promotes mitochondrial dysfunction and oxidative stress. As a result, this manifests into the multi-symptom progressive disease of Parkinson’s.

Diagnostic studies that are currently available for PD have their limitations due to low sensitivity, radiation exposure and accessibility. Clinicians mainly rely on history and physical exam, occasionally leading to misdiagnoses and delays in mitigating disease progression. Recent studies have shown promise in skin biopsy immunostaining for phosphorylated α -synuclein, namely the Syn-One test, as a diagnostic tool. A simple punch biopsy can easily access this biomarker, aiding in prompt diagnosis and early intervention.

A 66 y/o Caucasian male presented to our community geriatrics clinic for evaluation of a 1-year history of worsening myalgias, rigidity, tremor and restless legs syndrome. Family history was significant for PD. Extensive work-up by his primary physician and specialists was remarkable only for +ANA and MRI C/L spine showing mild degenerative changes. He was initially diagnosed by a specialist with undifferentiated connective tissue disease and was trialed on several medications without improvement. Given his family history and accessibility of the Syn-One test, he was scheduled for the biopsy and started on carbidopa-levodopa for high suspicion of PD. Within two weeks, the biopsy report returned positive for abnormal phosphorylated α -synuclein, consistent with histopathology of PD tissue, supporting the diagnosis of PD. The patient was already showing signs of improvement within a few weeks of starting treatment.

Further research is needed to provide stronger evidence behind this test as a diagnostic tool, but it is encouraging to have Syn-One to support clinical suspicion and aid in treatment selection. In this case, the Syn-One test allowed us to perform a punch biopsy without delay. The pathology report resulted fairly quickly, revealing the abnormality discussed, allowing the team to continue appropriate medical treatment, for which successful prompt response had been observed.

B56

Perineural Catheter Placement During Amputation in a Geriatric Patient

M. Quarella,¹ N. Mujahid,² I. Neupane.² *1. Brown University, Providence, RI; 2. Medicine, Brown University Warren Alpert Medical School, Providence, RI.*

Background

Management of pain after limb amputations can be challenging. Geriatric patients who undergo these procedures are at higher risk for postoperative morbidity and mortality than their younger counterparts, especially when they given new or increased doses of opiates, which are frequently used in post operative pain management. New and frequent use of opiates often lead to adverse events in geriatric patients. Local anesthesia modalities including perineural catheters (PNCs) have emerged as alternatives or supplements to systemic opiates, however there is poor data to support their effectiveness in reducing opiate consumption or lowering pain scores current studies.

Case Summary

A 93 year old female presented with two months of severe pain and open lesions on her left lower leg. She was diagnosed with epithelioid angiosarcoma and subsequently underwent above the knee amputation for tumor resection and management of her severe pain which had been requiring escalating doses of opiates.

Perioperatively, a femoral nerve perineural catheter was placed for bupivacaine infusion. Her pain scores throughout admission remained at or below 3/10. 3 days post-op the infusion was trialed off for 5 hours and the catheter removed, without any increase in pain scores. She required minimal dosing of oral Tramadol during her stay, below the frequency and dose that she was taking at home prior to amputation. The patient did not have any episodes of delirium or other adverse events.

Discussion

This case demonstrates the successful use of a PNC in a geriatric patient after total amputation. The patient had severe pain prior to surgery requiring increased opiates for pain control, but postoperatively was stable on minimally dosed Tramadol. This was possible with the use of the PNC which provided optimal pain control, giving her an opportunity to work well with physical therapy prior to discharge without adverse events. Unfortunately, there is limited evidence in studies supporting PNCs reducing opiate use and improving pain. A meta-analysis of efficacy of perineural local anesthetic catheters after lower limb amputations concluded that there is poor evidence to suggest that PNC significantly reduces opiate use or improves outcomes, noting that there are not enough randomized studies. Further studies are needed to evaluate the efficacy of PNCs in reducing acute postoperative pain and decreased opiate requirements.

B57

Joint Contracture and Dementia: Case Series

P. Raju. Geriatric Medicine, University of Illinois Chicago, Chicago, IL.

BACKGROUND

Joint contracture is defined as any joint deformity resulting in reduced range of motion (ROM) and increased resistance to passive movements, leading to functional impairments and limitations in activities of daily living (ADLs). Contractures are a well-known complication of dementia, and even conservative estimates suggest a prevalence of about 1 in 5 among the elderly population. Current literature suggests that earlier intervention with regular passive movements of the affected limbs may delay the development of contractures. It has also been noted that insufficient preventive therapy may accelerate the development of contractures, often overlooked due to the inevitable nature of the condition.

OBJECTIVES

This case series describes the incidence of joint contracture in three dementia patients over a 1-month period in the same skilled nursing facility (SNF) and highlights the likely association between inadequate preventive therapies and the accelerated appearance of this well-known complication.

DESIGN/METHOD

Case series review.

RESULTS

Three cases were identified over the course of one month in a single skilled nursing facility. In all instances, elderly females (age range 70-86) with a common history of severe dementia and restricted mobility exhibited profound and accelerated contracture of knee joints. Retrospective analysis via electronic health records chart review revealed a similar pattern: minimal engagement with restorative nursing staff and an absence of documented passive range of motion (ROM) joint therapy. Review of guidelines and operational practices within the SNF showed no protocolized interventions for contraction prevention. These cases collectively underscored the development of knee joint contractures resulting from restricted movement and

prolonged immobility. They indicate a potential gap in care involving standardized preventive therapy focused on joint ROM preservation.

CONCLUSION

Clearly delineated preventive therapy protocols are lacking in SNFs despite the prevalence and significant morbidity associated with joint contracture. Furthermore, no therapeutic guidelines exist to provide a standard of care for numerous patients with joint contracture in high-risk settings. In this vulnerable population, there is a need for further studies to increase the identification of premature and preventable joint contracture, as well as to study the efficacy of prevention therapy.

B58

Tardive Dyskinesia in a Skilled Nursing Facility Patient with Remote Antipsychotic Exposure

C. Cavusoglu,¹ A. Ahmad.² 1. Geriatric Medicine, Penn State Health Milton S Hershey Medical Center, Hershey, PA; 2. Internal Medicine and Geriatrics, Penn State Health, Hummelstown, PA.

The risk of tardive dyskinesia in older patients is high, even with relatively short treatment with low doses of antipsychotics (1). Studies have reported a cumulative annual incidence of tardive dyskinesia exceeding 25% among older patients (2-3). We present an uncommon manifestation of tardive dyskinesia in a patient resulting from remote and brief antipsychotic exposure.

In a skilled nursing facility, an 87-year-old woman, previously treated for cervical myelopathy through spinal fusion surgery, has presented with involuntary mouth movements affecting both speech and eating. Symptoms were characterized by repetitive jaw-opening and closing movements, dysarthria, and mild dysphagia, with no signs of cognitive decline, hallucinations, delusions, or depressive symptoms. Three years before the onset of the current symptoms, she underwent a six-month risperidone treatment for delirium symptoms during her initial transition from the hospital to the skilled nursing facility. Imaging via head CT showed multiple punctate white matter changes in the centrum semiovale, but no pathologies in the basal ganglia. Based on the clinical presentation, a diagnosis of tardive dyskinesia was established. The patient was initiated on Valbenazine treatment, resulting in a modest improvement in her symptoms.

This case emphasizes the potential development of tardive dyskinesia with short exposure to antipsychotics, and symptoms may manifest years later. Meticulous risk-benefit assessments are necessary before prescribing antipsychotics for older patients. The necessity for further research to comprehensively evaluate the long-term outcomes following short-term exposure to antipsychotics is evident.

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B59

Adult-Onset Cystic Fibrosis Diagnosed at the Age of 79: A Case Report.

J. Lee, A. Obaid, M. Gorenchtein. Geriatrics and Palliative Medicine, Northwell Health, New Hyde Park, NY.

Background: Cystic fibrosis (CF) is the most common autosomal recessive hereditary disorder in pediatric patients, driven by a defect in the CF transmembrane conductance regulator (CFTR) gene

causing thick secretions involving multi-organ systems, especially the lungs. Life expectancy is estimated around the mid 40's to 50's. Adult-onset CF is rare and often presents with unusual genetic variants. While multiple CF-targeted drugs exist, it is challenging to treat advanced diseases due to permanent organ damage. We present a case of CF diagnosed at the age of 79, which to the best of our knowledge, is one of the oldest CF cases.

Case Description: This is an 84-year-old female with adult-onset CF complicated by bronchiectasis, hypoxic respiratory failure, multidrug antibiotic suppressive therapy, physical deconditioning, and recurrent prolonged hospitalizations. She was diagnosed with CF via sweat chloride test and clinical criteria without other organ involvement. Genetic testing did not reveal a causative variant, and there was no family history of CF. She and her husband had difficulty following the CF treatment plan. Hoping for curative treatment, the patient opted for portacath placement for antibiotics and respiratory tissue sampling for potential novel therapies. Geriatrics provided coordination of care (consolidating the treatment regimen and educating on CF complications) and facilitated multidisciplinary meetings to discuss treatment goals, prognosis, realistic expectations, hospice, and quality of life. As the patient's functional status continued to decline with increasing caregiver burden, she was transitioned to a home visiting program. The patient then had another hospitalization for CF exacerbation, during which she was transitioned to inpatient hospice with terminal extubation, passing shortly afterwards.

Conclusions: Low threshold is warranted for adult-onset CF evaluation in geriatric patients with unexplained recurrent bronchiectasis and pneumonia. Novel targeted therapies exist for selected CF variants. Close multidisciplinary collaboration is instrumental for management. Early advanced care planning is paramount involving educating on disease course and prognosis. Timely recognition of clinical decline meeting homebound care and hospice criteria are indispensable to help avoid invasive procedures and treatments.

B60

De-escalation of Delirium: A Patient-Centered Approach

P. Lee, A. Buttar, L. J. Gleason. Medicine, University of Chicago Division of the Biological Sciences, Chicago, IL.

Background: Delirium is a multifactorial syndrome. While both nonpharmacological and pharmacological treatments are often employed to manage it, their effectiveness in reducing its duration can be limited. Personalized plans for redirection can be considered when approaching a patient with delirium. Music listening interventions have demonstrated efficacy in preventing delirium in post-operative settings. Here, we present a case involving de-escalation through sensory stimulation and work-like activities.

Case Presentation: A 68-year-old woman with hypertension, diabetes, and moderate dementia with behavioral disturbances presented to the emergency department with hypoglycemia to 40s after a night of watery diarrhea and emesis. The cause was attributed to an insulin administration error by a family member. During her hospitalization, she developed delirium with agitation which was refractory to antipsychotics and managed with restraints. After discussions with family, it was revealed that she had previously lived in Jamaica, worked as a housekeeper, and had a fondness for Bob Marley's music. To address episodes of agitation and redirect her focus away from actions like pulling at her foley catheter, a de-escalation strategy involving playing reggaeton music was implemented. Additionally, engaging her in the activity of folding hospital blankets was found to have a calming effect. Consistent education of sitters on the patient's personalized redirection strategies involving music and activities ultimately allowed for her discharge to a memory care unit, considering the complexities of her agitation and her brittle diabetes.

Discussion: Pre-existing factors for delirium in this patient included dementia, comorbidities of poorly controlled diabetes, functional impairment, and use of physical restraints and chemical

restraints. Multiple strategies for de-escalation of delirium exist. Beyond these measures, what eventually worked to de-escalate behaviors was what she enjoyed twenty years ago, including familiar music and tasks of folding items, easily implementable in the hospital. This case underscores the potential effectiveness of individualized approaches that consider a patient's cultural and vocational background in redirection strategies for managing delirium.

B61 Resident Presentation

Delirium, Catatonia or Both? A Case of VZV Encephalitis Induced Delirium and Catatonia in an Older Adult with Polypharmacy

c. Caetano, J. Gleason-Vergados, H. Cai, J. Ouellet. Internal Medicine, Yale School of Medicine, New Haven, CT.

Background: Catatonia and delirium are distinct neuropsychiatric syndromes with multiple potential etiologies; recent consideration has been given to their possible co-existence. We present a case of likely coexisting delirium and catatonia in an older patient with bipolar disorder with multiple underlying infectious etiologies. This case presentation reflects the challenge of differentiating hypoactive delirium and catatonia and selecting an appropriate therapy strategy.

Case Report: A 75-year-old woman, previously dependent in IADLs and assisted in ADLs, presented with several days of altered mental status. Medical history included bipolar disorder, complicated by prior catatonia, rheumatoid arthritis on chronic prednisone and lumbar stenosis on methadone. She was febrile and found to have a positive urine culture. Despite appropriate antibiotics, her mental status worsened. She developed a dermatomal vesicular rash concerning for varicella zoster virus (VZV) and was started on oral antivirals. Due to concern that antipsychotics were contributing to hypoactive delirium, they were tapered. Lumbar puncture was then performed, showing varicella encephalitis, and she was treated with IV acyclovir. Poor mental status persisted after completion of therapy. At this point, catatonia was considered and was trailed on several pharmacologic agents. After partial response, she was treated with electroconvulsive therapy (ECT), with full recovery to her baseline cognitive status.

Conclusions: This report describes a woman presenting with delirium caused by a urinary tract infection who subsequently developed catatonia in the setting of change in psychoactive medications and varicella encephalitis. There are several important learning points in this case. First, VZV encephalitis should be included on the differential for a patient with delirium and zoster rash, particularly older adults with impaired T cell immunity (e.g. those with chronic steroids). Additionally, delirium and catatonia may present as independent or co-morbid entities that are difficult to differentiate, particularly in a vulnerable older adult. As such, health professionals should apply a nuanced approach to treatment including therapies for catatonia when appropriate, despite the risk of potentiating delirium with psychoactive medications (ie. Benzodiazepines, ambien, etc.).

B62 Resident Presentation

Cangrelor to the Rescue in Octogenarian with Femoral Fracture and Recent STEMI

G. D. Perez Cordero, P. D. Gil de Rubio Cruz, J. Abou el Hossen-Carmona, E. Ocasio-Feliciano, N. Garcia-Perez. internal medicina, university of puerto rico, school of medicine, university district hospital, Toa Baja, Puerto Rico.

Case of an 85-year-old male with history of atrial fibrillation and coronary artery disease who presented after a fall resulting in femoral neck fracture. Four months before, the patient was treated with multiple drug-eluting stents (DES). One month later, due to non-compliance, the patient had acute stent thrombosis with development of cardiogenic shock. Given recent DES placement, discontinuation of dual antiplatelet therapy (DAPT) posed a significant contraindication since patients typically require at least six months of continuous therapy, complicating

the need for emergent orthopedic surgery in a patient who desired the procedure to prevent progression to bedridden status.

Due to the critical requirement for surgery, after a discussion with Cardiology, Critical Care, Geriatrics, Anesthesia, Orthopedic surgery and Pharmacy, the decision was made to utilize Cangrelor, an intravenous P2Y12 inhibitor with a short half-life, never used before at our institution. Patient was transferred to the intensive care unit where drip was started. This strategy aimed to maintain perioperative antiplatelet activity while allowing for surgical intervention. The patient was closely monitored for bleeding risks during and post procedure.

Cangrelor infusion was successfully initiated and stopped two hours before surgery. The orthopedic procedure was performed without major complications, and the patient's hemodynamic status remained stable. Post-surgery, the patient was given a bolus of ticagrelor and re-started on full dose anticoagulation.

In this challenging case, the need for emergent orthopedic surgery conflicted with the contraindication of discontinuing DAPT in a patient with a recent DES. Utilizing Cangrelor proved to be a viable solution, enabling surgical intervention without compromising the need for antiplatelet therapy. The successful outcome emphasizes the importance of tailoring antiplatelet strategies to individual patient needs especially in situations where traditional therapeutic guidelines may pose challenges. This case underscores the significance of a multidisciplinary approach which prioritizes patients autonomy in the shared decision making in order to achieve successful and wanted outcomes.

B63

Improved health outcome following a comprehensive geriatric assessment: intervention to reverse rapid onset of frailty caused by hypercalcemia.

A. Khan, M. Bednarczyk. *Internal Medicine, Rush University Medical Center, Chicago, IL.*

Background

In older adults with cancer, a comprehensive geriatric assessment (CGA) helps identify previously unrecognized geriatric syndromes, predicts treatment related morbidity and mortality, and facilitates interventions to improve care and clinical outcomes.

Case Description

A 73-year-old female with recently diagnosed Myelodysplastic Syndrome underwent a CGA as part of a pre-Stem Cell Transplant (SCT) evaluation. Since starting chemotherapy, she had been hospitalized twice for intractable nausea with vomiting, acute kidney injury, hypokalemia, hypercalcemia. Her nausea and vomiting persisted after stopping chemotherapy. She was diagnosed with PTH mediated hypercalcemia. Treatment with IV Zoledronic acid briefly corrected the calcium levels. A nuclear scan was suspicious for right parathyroid adenoma. The patient experienced a drastic decline in her functional status over the course of three months. Previously independent with all iADLs, she now required a cane for ambulation at home and a wheelchair to leave her house. Although the patient wished to proceed with SCT, based on the CGA, she was a high-risk candidate due to her frail state. Treatment to address hypercalcemia prior to SCT was recommended. The patient underwent a parathyroidectomy with G-tube placement due to poor pre-operative nutritional status. On her 4 month follow up visit, the patient had significant improvements across all of the CGA assessments. Her MDS remained in remission and a SCT was no longer necessary.

Discussion

This case demonstrates how the CGA can identify numerous vulnerabilities that are not captured by commonly used assessments. Along with objective identification of physiologic aging and risk stratification of patient prior to a planned intervention, the CGA can uncover nutritional, functional and cognitive deficits, including previously under treated or unrecognized medical conditions that are treatable, leading to improved health outcomes.

References:

Muffly, Lori S., et al. "Pilot study of CGA in allogeneic transplant: CGA captures a high prevalence of vulnerabilities in older transplant recipients." *BBMT* 19.3 (2013): 429-434.

CGA parameters at initial visit and at 3 months

CGA Visit 1	CGA Visit 2
Fried Frailty Criteria: 3	Fried Frailty Criteria: 2
VES-13: 7	VES-13: 0
MOCA 18/30	MOCA 22/30
SPPB 3/12	SPPB 10/12

B64

Case Series: Change of Diagnosis to Parkinsonian Syndromes with DaTscan

C. Chiu, S. S. THOMAS, J. R. Shaikh, S. D. Hasan. *Geriatrics and Palliative Medicine, Baylor College of Medicine, Houston, TX.*

Background: Parkinsonism, a hypokinetic syndrome, with Parkinson's disease (PD) as the most prevalent neurodegenerative subtype, the rest are atypical parkinsonism, such as Dementia with Lewy bodies (DLB). It emphasizes non-motor symptoms such as cognitive impairment, gait instability, and depression, often overlooked in older adults. Accurate identification is pivotal due to distinct management strategies. DaTscan, utilizing SPECT brain imaging to visualize the striatal dopamine transporter, aids in parkinsonian syndromes, even without typical motor symptoms.

Method: Three cases are presented, all previously diagnosed with dementia but exhibiting positive DaTscan results.

Result:

1. An 80-year-old female, initially diagnosed with Alzheimer's disease (AD) with behavior disturbance, has changed to DLB after DaTscan. She has cognitive and functional decline, unresponsive to medication. Clinically, she displays apathy, lack of engagement, orthostatic hypotension and impaired gait. DaTscan reveals dopamine deficiency with moderate volume deficiency.

2. An 84-year-old female with mild cognitive decline and tardive dyskinesia (TD), in whom we suspect non-motor symptoms of PD. She had involuntary mouth movements improved with speaking, cognitive decline, word-finding difficulties, and short-term memory loss, no improvement with medications. Clinically, she has lip smacking and facial twitching resembling TD, and gait instability. DaTscan shows early signs of dopaminergic dysfunction.

3. An 84-year-old male, initially diagnosed with AD due to memory loss, progresses to paranoia, visual hallucinations, reduced motivation, and recurrent falls in the next couple years. Clinically, he appears apathetic, with gait instability and orthostatic hypotension. DaTscan indicates moderate dopamine deficiency in the bilateral putamina. We changed the diagnosis to AD mixed with DLB after DaTscan.

Conclusion: Neurodegenerative parkinsonism involves both motor and non-motor symptoms, with non-motor symptoms being significant in Parkinsonian syndromes. DaTscan is helpful in diagnosing ambiguous presentations of Parkinsonism.

B65

Utility of Dopamine Transport Scan in Atypical Parkinsonian Presentation: A Case Series

S. S. THOMAS, C. Chen Chiu, J. Shaikh. *Geriatrics, Baylor College of Medicine, Houston, TX.*

Parkinson's disease (PD) is the most common neurodegenerative movement disorder. The clinical picture includes motor and non-motor symptoms, and many times non-motor symptoms present before motor symptoms appear and are seen commonly in also in atypical parkinsonian syndromes such as multiple system atrophy (MSA), progressive supranuclear palsy (PSP), and cortico-basal degeneration (CBD). Nonmotor symptoms include sleep disorders, and autonomic

and GI symptoms, which can be confused as normal aging process, especially in the Geriatric population. Here we present a case series involving three patients over age 70, who were presented with atypical constellation of non-motor symptoms. When the clinical diagnosis was uncertain, a Dopamine Transport Scan(Ioflupane SPECT) (DaT) was used. In all three patients, the DaT scan revealed dopamine deficiency in the striatal area. This helped in streamlining treatment in all three patients. In the Geriatric population especially when presentation is unclear or thought of as part of the normal aging process, DaT scans could support accurate clinical diagnosis. Further prospective studies are required in Geriatric patients to confirm the sensitivity and positive predictive value of DaT scans.

Figures and Graphics will be produced upon request

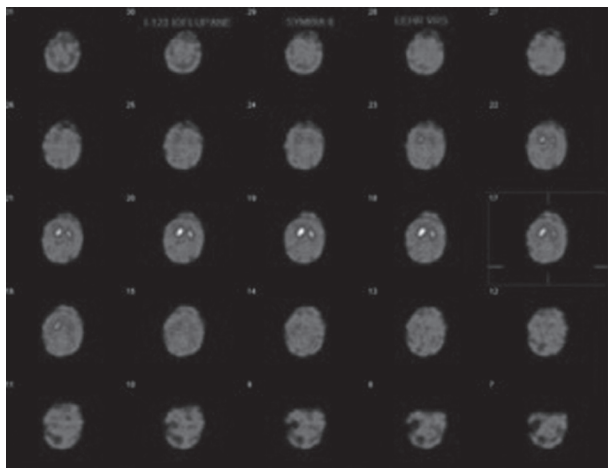


Figure 1: Third Patient's DAT Scan, in left caudate nuclei and putamen and tracer accumulation within right caudate and right putamen is preserved although she had right caudate infarct.

B66

Doctor's Orders: Papas Fritas. A Food for Thought Case Report: PEG Tube or Not at End of Life.

M. Silva Ferreira, J. Nunez, M. Sehgal. Geriatric Medicine, Cleveland Clinic Florida, Weston, FL.

Background: Goals of care discussions are critical to identify what matters most to patients. However, often due to time restraints or perceived resistance from patients, they are avoided.

Case Presentation: Mrs. SM is an 80-year-old fully dependent Spanish speaking woman with a history of severe dementia who was admitted to the intensive care unit (ICU) with septic shock due to MRSA bacteremia and possible endocarditis.

She required broad spectrum antibiotics, intravenous pressors, and nasogastric tube placement due to severe dysphagia. After 5 days in the ICU, she was transferred to the general medicine floor, where she remained in hypoactive delirium.

Many discussions were held between the admitting team and Mrs. SM's daughter, her healthcare surrogate, regarding code status and the need for invasive procedures, eg, transesophageal echocardiogram and percutaneous endoscopic gastrostomy (PEG) tube placement.

Geriatrics was consulted to extend the goals of care discussion, as the daughter refused to have palliative care on board. We contacted Mrs. SM's daughter and asked her to join us, in-person, to identify her concerns and expectations for her Mom's health. Given her severe dementia and swallowing concerns, we identified what mattered most was for her Mom to be nourished and we encouraged offering her favorite food 'papas fritas' (french fries). After our discussion, her daughter declined PEG tube placement, made her Mother DNR (Do Not Resuscitate) and accepted a hospice consult.

Discussion: This case highlights the importance of taking the time to identify what matters most to our patients within conversations

regarding goals of care. Ideally, these occur with both patients and their caregivers present which allows time to provide information and correct misconceptions regarding care. Having goals of care conversations early on may ensure that what matters most to the patient comes first.

B67

Ciprofloxacin induced choreiform movements: making a case for cautious use

D. Meshoyrer, E. G. Granda, K. Sharma. Geriatrics, Morristown Medical Center, Morristown, NJ.

Introduction:

Fluoroquinolones are broad spectrum antibiotics that can be used in the treatment of many bacterial infections. Their central nervous system adverse effects can include dizziness and psychosis. These effects are thought to be related to alterations in GABA and NMDA binding as well as an increase in excitatory neurotransmitters. Case reports found in literature also describe movement disorders caused by these antibiotics. We present a patient with Lewy Body Dementia (LBD) who developed choreiform movements after being started on ciprofloxacin for a urinary tract infection (UTI).

Case:

A 79-year-old man with history of chronic back pain and LBD, presented to the emergency department (ED) with altered mental status. A week prior he was diagnosed with a UTI after presenting to his primary care physician with confusion, worsening shuffling gait, and word finding difficulty. Urinalysis and culture were performed, and he was started on ciprofloxacin. Despite antibiotic initiation he continued to have worsening confusion and was brought to the ED.

In the ED he was noted to be exhibiting intermittent shrugging movements of the left shoulder and concomitant rhythmic distal arm movements. Per wife, these movements were new. Workup included blood work and a urinalysis that were unremarkable. Neurology was consulted and noted that these were choreiform movements. CT Head was negative. Further workup including an ANA, ESR, and antiphospholipid antibodies were negative. Neurology recommended stopping ciprofloxacin as it was a likely contributor. With cessation of the ciprofloxacin, patient's choreiform movements subsided and his mental status improved.

Discussion:

Ciprofloxacin is a fluoroquinolone that has been shown to have increased CNS permeability. There are previous cases that describe myoclonus and orofacial dyskinesia even in patients with normal renal and liver functions. In our case, the patient did not have underlying renal or hepatic disease. Discontinuing the medication led to cessation of the choreiform movements and return to baseline. It is unclear if his history of LBD increased his susceptibility to these side effects. This case emphasizes the need to be aware of this side effect in elderly patients being treated with ciprofloxacin, and the need for ciprofloxacin cessation in similar presentations to prevent unnecessary additional testing and delay in recovery.

B68

Fahr's Syndrome: The importance of teamwork

N. Albar,^{1,2} I. Ibrahim,^{1,2} N. Dubowitz,^{1,2} E. Cobbs.^{1,2} 1. Geriatrics, The George Washington University, Washington, DC; 2. Veterans Health Administration, Washington, DC.

Background: Fahr's Disease is a rare neurodegenerative disorder that is characterized by calcifications in the basal ganglia. It typically impacts younger adults with onset beginning in the 40s or 50s.

Case: A 49 year old male Veteran was seen for follow up in geriatric clinic with diagnosis of Fahr's disease. He was referred to geriatric clinic by Neurology 3 years ago for additional support and resources. Pt was initially seen by neurology in 2019 for slurred speech, gait disturbance, and memory decline. Brain MRI showed extensive calcification throughout the brain including the basal ganglia

in a pattern suggestive of Fahr's syndrome. Workup included labs for parathyroid hormone, inflammatory markers, autoimmune panel, and infectious diseases including HIV, toxoplasmosis, cryptococcus and West Nile virus. Pt was also seen by rheumatology for an incidental positive ANA finding. Genetic testing was negative for all known disease-causing familial mutations.

Over the following 3 years the patient developed progressive functional and cognitive decline and retired from his job. Neuropsychology evaluation revealed major neurocognitive impairment in executive function, memory, attention and processing speed. His care is coordinated by neurology, geriatrics, geriatric psychiatry, rehab and palliative care. He is now dependent on a wheelchair for mobility and on his wife for all activities of daily living (ADLs) and instrumental activities of daily living (IADLs). The geriatric and palliative care teams have coordinated home support services including a home health aide, home physical, occupational and speech therapy and medical equipment. Advance care planning and goals of care with consideration for home hospice when needed in the future were also discussed.

Conclusion: This case demonstrates the importance of early multidisciplinary collaboration in the diagnosis and care of early neurodegenerative diseases. Early and ongoing advanced care planning and coordination with several disciplines including nutrition, rehab, social work, palliative care, neurology and geriatrics has provided support to patient and his family. Patient has remained stable at home under the care of his family without any recent emergency room visits or hospitalizations. Continued close follow up and multidisciplinary care coordination is essential in supporting this patient and others with complex health and social needs.

B69 Student Presentation

Translating Patient Values into Outcome Goals for Priorities-Aligned Medical Decisions

A. C. Nguyen,^{1,2} J. Freytag,^{1,2} A. Catic,^{1,2} A. Naik.^{3,2} 1. Baylor College of Medicine, Houston, TX; 2. Michael E DeBakey VA Medical Center, Houston, TX; 3. The University of Texas Health Science Center at Houston, Houston, TX.

Background: Most older adults have multiple chronic conditions (MCC) that challenge current care models. Patient Priorities Care (PPC) is a framework for patients and clinicians that addresses decision-making tradeoffs by identifying patient health priorities and align care to meet those priorities. PPC integrates health priorities into clinical practice by taking health values and translating them into specific, realistic and actionable outcome goals. Health values domains include Functioning, Connecting, Enjoying Life, and Managing Health. Few studies have analyzed the translation of health values into outcome goals, which is important in aligning healthcare with what matters to older patients.

Methods: We conducted a retrospective chart review of 61 older veterans (mean age: 87.3, 98.4% male) who participated in a PPC visit in a Geriatrics outpatient clinic at a VA medical center between 2018 and 2020. Two coders extracted patient values and outcome goals and used an open coding approach to identify goal categories. A multidisciplinary team examined the coded goals to analyze themes within each patient case and compared between patients in the cohort.

Results: We identified 133 goals that categorized within the 4 values domains. Two novel themes emerged. Most often, outcome goals were amalgams of 2+ values domains. For example, a patient set the goal to go shopping with his granddaughter each week. This goal honored his values of connecting with his granddaughter, maintaining function, and enjoyment of shopping. Second, we often found similar outcome goals when comparing between patients, but each goal honored different underlying values based on the person. For example, 3 patients set the goal to walk outside each day. One set the goal to improve his independence (functioning). Another wanted to enjoy time outside (enjoying life). The third wanted to get stronger to prevent falls (managing health).

Conclusions: We report that outcome goals can address multiple patient values in the same patient and similar outcome goals can address different underlying values in separate patients. These observations highlight how understanding the translation of values into outcome goals is complex yet vital for patient engagement and priorities-aligned decisions.

B70 Encore Presentation

Optimizing Post-Discharge Care for Elderly Adults: Role of a Transitional Care Pharmacist

A. Cours, S. Bulla, S. Loo, M. Sheffrin. *Medicine, Stanford University, Stanford, CA.*

Background: Stanford Health Care's Transitions of Care team, dedicated to minimizing readmissions for high-risk elderly patients post-discharge, recently added pharmacy support for targeted pharmacy consults. Team members refer patients to the pharmacist for medication counseling, comprehensive reviews, and comorbidity management. We aim to evaluate the benefits of targeted consultations by a transitions of care pharmacist within an established transitional care team.

Methods: We collected data between July 1 and August 31, 2023, to assess the impact of pharmacist interventions and identify opportunities for improvement. The methodology involved a retrospective chart review, encompassing post-discharge consultations, patient demographics, the duration from discharge to referral, and pharmacist time allocation. Additionally, we analyzed pharmacy interventions, categorizing them into low, medium, high, or very high significance using a validated classification scale.

Results: During this two-month period, the pharmacist assessed 36 unique patients, conducting 42 encounters, which included follow-up sessions. 86% of post-discharge consultations were successfully carried out. For the remaining 14% of patients who were unreachable, a comprehensive medication review was conducted based on chart review. Mean age of patients was 78.9 years old (range 67-90), and average time from discharge to referral was 16.9 days (range 2-72 days). The average time spent per consult was 72 minutes. Out of 118 pharmacist interventions, medication counseling (n=35) and optimization of therapy (n=37) were most frequently performed, followed by addressing access issues (n=10) and identifying drug interactions (n=8). In terms of significance, 65% of these interventions were classified as low, 22% as medium, 9% as high, and 4% as very high significance.

Conclusions: The pharmacist identified and addressed medication issues, highlighting pharmacy's value, even among patients cared for by a team trained to manage medications post-hospital discharge. Areas for improvement include reducing time from discharge to referral. We plan to implement a pharmacy technician to optimize the pharmacist's workflow, with hopes of improving time from discharge to referral and number of successful post-discharge visits.

B71 Student Presentation

AGE SELF CARE: A program to improve aging in place through education, incremental behavior change and group learning

T. Nguyen,⁶ B. Tang,¹ L. Aronson,² K. Harrison,² S. Stadler,³ L. C. Walter,^{2,4} K. Hoepke,⁵ T. A. Allison.^{2,4} 1. SUNY Upstate Medical University, Syracuse, NY; 2. University of California San Francisco, San Francisco, CA; 3. At Home with Growing Older, Berkeley, CA; 4. San Francisco VA Health Care System, San Francisco, CA; 5. San Francisco Village, San Francisco, CA; 6. UCSC, Santa Cruz, CA.

BACKGROUND Few programs exist to support aging in place for older adults. AGE SELF CARE (Adaptation Growth Engagement, Socialization Empowerment Learning and Fun(ction): Community Activation for Resilience in Elderhood) is a novel program that provides older adults with evidence-based information to improve

health, support home safety, and increase social networks and facilitates behavior change necessary for community-based aging. The program includes group sessions within the support structure of a community-based organization. We report on a qualitative study of AGE SELF CARE conducted in collaboration with At Home With Growing Older and embedded in San Francisco Village.

METHODS We recruited middle-income, community-dwelling adults age 65+ from university outpatient clinics. Participants attended eight 75-minute, video-based group sessions, and enrolled in a non-profit mutual support organization for older adults. Data collection included direct observations and a participant focus group. We used rapid analysis methods informed by the COM-B model (Capability, Opportunity, Motivation, Behavior Change) to assess for behavior change.

RESULTS Fourteen participants completed the 8-week study (15 enrolled). Average attendance was 81%, consistent throughout the program. We found that participants made observable, reproducible changes to optimize their ability to remain at home. For example, participants made evidence-based, falls risk reduction activities such as decluttering and improving lighting. Four themes emerged, three facilitators and one non-modifiable barrier. First, AGE SELF CARE promoted self-management of health through education about functional status and wellbeing. Second, AGE SELF CARE empowered participants to take charge of their health, home environment, and social networks. Third, the online platform created community and was a catalyst for social opportunity. Fourth, pre-existing financial barriers prevented some behavior change.

CONCLUSIONS AGE SELF CARE led to observable behaviors to improve aging in place, including minor home modifications, falls risk reduction and engagement in social networks.

B72

Exploring Seriously Ill Unhoused Older Adults' Goals and Values: A Preliminary Study

A. Latimer,^{1,2} M. Light,^{3,4} H. M. Okeyo,¹ O. Sadi,¹ D. K. Moser,¹ N. Pope.⁵ 1. College of Nursing, University of Kentucky, Lexington, KY; 2. Division of Palliative and Supportive Medicine, University of Kentucky Medical Center, Lexington, KY; 3. Homeless Palliative Care Team, Harborview Medical Center, Seattle, WA; 4. Palliative Care Training Center, University of Washington, Seattle, WA; 5. College of Social Work, University of Kentucky, Lexington, KY.

Background Understanding older adults' values is crucial in supporting their healthcare and treatment-based decisions. This is especially true for older adults experiencing homelessness (OAEH) who often have limited options. More OAEH have multiple chronic and life-threatening illnesses and die younger than housed counterparts. While serious illness values-based discussions can decrease anxiety and depression, conversations focused on securing resources and referrals to supportive programs often take priority. Engaging OAEH in serious illness conversations and assessing priorities is under-researched and could provide insight on approaching health-related conversations with unhoused OAs. We explored OAEH values related to their serious illness to understand what informs their decisions. **Methods** We conducted semi-structured interviews using the Serious Illness Conversation Guide. We used purposive and snowball sampling to enroll OAEH with a serious illness. Participants were interviewed in a shelter, transitional housing, and a hospital. The research team identified common themes across transcripts, applying analytic notetaking. Our rapid qualitative analysis involved summarizing transcripts based on participants' health-related goals, fears, worries, and hopes. Data on each domain (i.e., goals, fears) was formatted into a matrix for interpretation. **Results** A sample of 11 participants (six White, five Black), with a mean age of 61, were interviewed (average 74 minutes). Participants shared goals related to engaging and addressing health issues, managing their pain, planning for end-of-life,

and spending time with people and activities important to them. Their fears and worries centered on future medical interventions, loss of freedom or independence, and pain and discomfort. Participants hoped for their health to improve, to live longer, and to experience comfort and peace. **Conclusions** Participants were receptive to conversations about their serious illnesses. In addition to facilitating access to basic resources, clinical practice should adopt strategies that integrate priorities of OAEH.

B73

Patient Preferences for Strategies to Improve Medication Safety

K. M. Daniel, K. Kahveci, L. Jarrell, J. Roye, Y. Xiao. College of Nursing and Health Innovation, The University of Texas at Arlington, Arlington, TX.

Background: Medication safety of community dwelling multi-morbid older adults is dependent on their ability to work collaboratively with their healthcare team and establish supportive habits and behaviors such as bringing medications and questions to office visits for review. Many strategies have been implemented with little impact. We assessed novel behavioral strategies in primary care office visits to nudge and to empower older adults to adopt collaborative habits and behaviors.

Methods: We recruited older adult volunteers from a safety net hospital system clinic to simulate themselves as patients attending a regular primary care office visit and an intervention visit, during which behavioral strategies were used. These strategies included multiple brief (about 1.5 min) videos focused on topics related to medication safety that patients could watch before visiting with a provider, and a one-page visit guide with a list of 16 check items to prompt communication on medications to be completed in the exam room prior to the visit. The simulated office visits were followed by debriefing interviews to collect their reflections on each strategy. The interviews were recorded and transcribed word for word, then analyzed for common themes.

Results: Fourteen study participants attended simulated visits. Ten (71%) were female. Eleven (79%) were African American and 2 (14%) were Hispanic. Mean age of the sample was 62 (52-67). Themes that emerged from the participants' words were "helpful tools," "write it down," "the right time," "refresher," "patient centered," "patient engagement," and "shared decision making." One theme we discovered that was unexpected was that patients thought these tools would be especially helpful in the setting of "provider inconsistency" when patients reported seeing multiple providers over time. They were dissatisfied with changes in providers which they had no control over and felt that it contributed to confusion when different providers had different information or priorities. All participants recommended that the videos and the visit guide should be used in primary care office visits.

Conclusions: Older adults in this sample were supportive of the behavioral strategies using brief videos and completing a short pre-visit guide after attending simulated office visits. Their consensus reflection was that use of these interventions could improve their medication safety.

B74

Improving Measurement of Functional Status among Older Veterans in Primary Care: a Pilot Study

R. Brown,² K. Zamora,¹ A. Rizzo,¹ M. Spar,¹ K. Fung,¹ L. Santiago,¹ F. Nicosia.¹ 1. San Francisco VA Health Care System, San Francisco, CA; 2. University of Pennsylvania Perelman School of Medicine, Philadelphia, PA.

Background: Despite its importance for clinical care and outcomes among older adults, functional status – the ability to perform basic activities of daily living (ADLs) and instrumental ADLs (IADLs) – is seldom routinely measured in non-geriatrics primary care

settings. The objective of this study was to pilot test a patient-centered, interprofessional intervention to improve identification and management of functional impairment among older adults in two Veterans Affairs (VA) primary care practices.

Methods: The five-component intervention included (1) an interprofessional educational session; (2) annual functional status screening among patients aged ≥ 75 during patient triage; (3) primary care provider assessment and referrals for patients with identified functional impairment; (4) standardized electronic tools and templates to facilitate increased identification and improved management of functional impairment; and (5) tailored reports for clinicians and operational leaders. Surveys, semi-structured interviews, and electronic health record data were used to measure implementation outcomes (appropriateness, acceptability and satisfaction, feasibility, fidelity, adoption/reach, sustainability). We analyzed qualitative interviews using rapid qualitative analysis.

Results: During the study period, all 959 eligible patients were screened (100% reach), of whom 7.3% (n=58) reported difficulty or needing help with ≥ 1 ADL and 11.8% (n=113) reported difficulty or needing help with ≥ 1 IADL. In a chart review among a subset of 50 patients with functional impairment, 78% percent of clinician notes for the visit when screening was completed had content related to function, and 48% of patients had referrals ordered to address impairments (e.g., physical therapy) within 1 week. Clinicians highly rated the quality of the educational session and reported increased ability to measure and communicate about function. Clinicians and patients reported that the intervention was appropriate, acceptable, and feasible to complete, even during the COVID pandemic.

Conclusions: These findings suggest that this intervention is a promising approach to improve identification and management of functional impairment for older veterans in primary care. Broader implementation and evaluation of this intervention is currently underway.

B75 Student Presentation

Association Between Benzodiazepines and Returns to the Hospital in Centenarians

B. J. Hegele, S. Faragalla, J. Ouslander, G. Engstrom. *College of Medicine, Florida Atlantic University, Boca Raton, FL.*

Background: It has been predicted that half of those born in 2000 will reach 100 years of age. Thus, it is crucial to ensure current and future centenarians are treated so that their risk of iatrogenic injury is minimized. Older adults are at a significantly greater risk of falling the day after initiating a benzodiazepine, which could result in hospitalization. The aim of this study was to determine the association between benzodiazepines and increased risk of 30-day hospital returns among centenarians prescribed benzodiazepines upon discharge.

Methods: This study is a secondary analysis of a quality improvement database of patients age ≥ 100 admitted to a community teaching hospital from 2017 to 2020. Patients were excluded if they expired in the hospital or were discharged to hospice. Falls and benzodiazepine prescriptions were identified using ICD-10 codes and medication reconciliation lists, respectively. Chi-square tests were used to compare the characteristics and outcomes of patients with and without benzodiazepine prescriptions. Returns to the hospital included visits to the emergency department without admission and any admission within 30 days of discharge. Diagnoses associated with hospital returns, specifically focusing on falls, were examined.

Results: Among 513 admissions, 52 (10%) were prescribed a benzodiazepine at discharge. Among these 52, 13 (25%) returned to the hospital within 30 days vs. 84 of 461 (18%) without a benzodiazepine prescription (p = 0.189). Among those who returned to the hospital, 4 (8%) prescribed benzodiazepines returned for fall compared to 21 (5%) patients not prescribed benzodiazepines returned for fall (p=0.38).

Conclusions: Centenarians who were prescribed a benzodiazepine at discharge in this cohort were not at a higher risk of returning to the hospital within 30-days of discharge. Falls were not a statistically significant outcome among those prescribed a benzodiazepine at discharge. Variability in outcomes was identified; however, this study was limited by a small sample size and the potential for confounding by indication. We hypothesize that larger studies have the potential to show statistically significant incongruence in outcomes and hospital returns in centenarians prescribed benzodiazepines.

B76

Developing a Deprescribing Intervention to Benefit Aging World Trade Center General Responders

C. Hortelano,³ A. Liang,³ Z. Chowdhury,¹ T. Hills,³ J. Boafu,³ W. Hung,³ K. Ornstein,² F. Ko,³ S. See.¹ *1. College of Pharmacy and Health Sciences, St John's University, New York, NY; 2. School of Nursing, Johns Hopkins University, Baltimore, MD; 3. Icahn School of Medicine at Mount Sinai Brookdale Department of Geriatrics and Palliative Medicine, New York, NY.*

Background: The majority of World Trade Center (WTC) rescue and recovery responders exposed to environmental toxicants after the 9/11 attack will be >65 years old by 2030. Geriatric syndromes such as frailty ($>30\%$) and polypharmacy ($>50\%$) are prevalent among them. Given that polypharmacy increases risks of medication side effects and non-adherence, we developed a pharmacist-led deprescribing intervention modeled after the Canadian D-PRESCRIBE trial to promote safer prescribing practices for WTC responders.

Methods: The frequency of high-risk Beers Criteria medications was determined using data from the Mount Sinai WTC General Responder Cohort, among 14,042 responders aged 50 and over. Medications were categorized into proton pump inhibitors (PPIs), benzodiazepine and non-benzodiazepine sedative hypnotics ("Z-drugs"), first-generation antihistamines (FGA), and skeletal muscle relaxants (SMR). Deprescribing education materials (drug monographs) for these high-risk drugs were developed for patients and prescribers.

Results: Among WTC responders, the use of high-risk medications was 34% (n=4774) for PPI, 10% (n=1409) for benzodiazepine and/or Z-drug, 3.6% (n=509) for FGA, and 3.2% (n=452) for SMR. We developed a deprescribing intervention protocol targeting these medications, tailored for the unique clinical setting in which WTC responders receive care and routine surveillance. The intervention includes a survey of the responders' beliefs regarding their use of these medications and attitudes towards deprescribing, a procedure to educate patients and prescribers on deprescribing the medications using drug monographs, and ascertainment of intervention feasibility and changes in prescribing behavior.

Conclusion: Polypharmacy and use of Beers Criteria medications are common in the aging WTC responder population. We are implementing a pharmacist-led deprescribing initiative to decrease polypharmacy, tailored to the needs of a vulnerable and aging WTC responder population. Lessons learned from this deprescribing intervention may benefit future polypharmacy management practices in aging individuals who have experienced significant adverse environmental exposures.

B77

Exposure to Environmental Toxins and Impact on Perceived Stress, Social isolation, Resilience, and Cognition

K. P. Padala,^{1,2} C. G. Crawford,¹ C. Gauss,^{1,2} P. R. Padala.^{1,2} *1. Central Arkansas Veterans Healthcare System Eugene J Towbin Healthcare Center, North Little Rock, AR; 2. University of Arkansas for Medical Sciences, Little Rock, AR.*

Background: Over 3.5 million Veterans and Service Members were exposed to open burn pits (OBP) used for waste disposal during military deployments. There is accumulating evidence that toxic

exposure causes biochemical and epigenetic changes that lead to serious chronic age-related health problems. Preliminary data suggested that this cohort may be susceptible for social isolation and higher perceived stress further complicating their health trajectory. As part of a DOD study to determine the relationships between exposure, the biochemical and molecular measures, and presence of health problems, we conducted a quality improvement project focusing on social isolation, perceived stress, resilience, and cognition in this cohort.

Methods: The connections plan is an 8-week telephone support program based on the tenets of cognitive behavioral therapy. The intervention consists of improving mind, body, and connection practices. The mind goals will be achieved by providing resources on how to keep our mind sharp, like playing word games, doing puzzles, reading, and practicing mindful awareness. Body goals will be achieved by providing resources on improving physical activity. Connections goals will be achieved by re-connecting patients with their family and friends, with nature, art, or music.

Results: Baseline data are being presented for the first 28 participants: 89% were male; 93% were Caucasian; 7% were African Americans; and 84% lived in rural areas. Majority of the participants (92%) reported some perceived stress often or very often. Also, majority of the participants (72%) reported social isolation at least sometimes. The mean brief resilient coping scale was 14.5(±3.0) (4-20, best score 20). Mean T-MoCA score at baseline was 17.1(±2.5) (best score on the test is 22).

Conclusion: Those exposed to environmental effects might be socially isolated, have high levels of perceived stress along with chronic health-related morbidities. It is important to screen for and mitigate stress and isolation in this cohort.

B78 Student Presentation

What would it take for Skilled Nursing Facility (SNF) Providers to Optimize Medications in Post-Acute Care Patients with Fracture?

E. Lerner,^{1,4} S. Berry,^{2,4} C. Colón-Emeric,³ K. MacLean.⁴ 1. UMich, Ann Arbor, MI; 2. Harvard Medical School, Boston, MA; 3. Duke Medicine, Durham, NC; 4. HebSenLife, Boston, MA.

Background: Older adults with fracture receiving post-acute care in a skilled nursing facility (SNF) are at high risk for subsequent fracture. SNFs provide an opportune time to optimize medications, including deprescribing medications associated with falls and initiating osteoporosis (OP) treatment. We aimed to understand whether SNF providers are practicing deprescribing and OP treatment and what messaging is beneficial to encourage these practices.

Methods: We conducted semi-structured interviews with SNF providers across multiple states. Participants were recruited through national and regional organizations. Two research team members led interviews (~30 minutes). Providers were shown messages that could be used to encourage deprescribing and OP treatment, and were asked whether the messages were effective in encouraging these practices.

Results: We completed 17 interviews across 13 states, including 16 physicians and 1 NP. Overall, 14/17 (82%) said they often or always practice deprescribing, whereas only 2/17 (12%) said they often or always practice OP treatment in post-fracture patients. Figure 1 provides their perspectives on messaging.

Conclusions: SNF providers routinely consider deprescribing in post-acute care patients with fracture, yet seldom consider OP treatment. Shorter messaging that highlighted improved patient outcomes and avoided punitive language was more likely to encourage providers to deprescribe and begin OP treatment.

Provider Agreement That Messages Promote Deprescribing or Osteoporosis Treatment

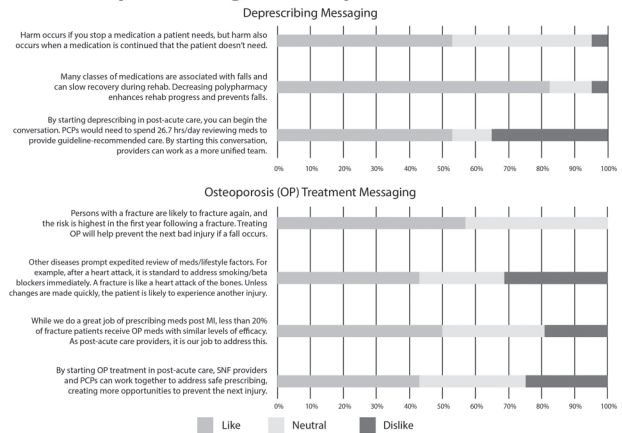


Fig. 1 Agreement of 17 SNF providers on medication optimization messaging.

B79

A pilot home-telehealth program to enhance mobility and physical activity in post-hospital discharge older Veterans

D. Liebbezeit,¹ K. Phillips,² N. Alexander.^{2,3} 1. The University of Iowa, Iowa City, IA; 2. VA Ann Arbor Geriatric Research Education and Clinical Center, Ann Arbor, MI; 3. University of Michigan Michigan Medicine, Ann Arbor, MI.

Background: Telehealth-based programs have been increasingly adopted to provide continuity in post-hospital care transitions. Few home-based telehealth programs specifically target post-hospital declines in mobility and physical function. The present pilot program sought to use Veterans Administration (VA) Video Connect (VVC) to enhance mobility and physical activity in older Veterans post-hospital discharge.

Methods: Program eligibility included veterans aged ≥65 following a recent acute Midwestern VA hospital discharge where additional rehabilitation goals were identified. A physical activity trainer supported the progression of rehabilitation goals via a home exercise program and coached the Veteran and caregiver to optimize mobility and physical activity. Veterans were assessed at baseline (near hospital discharge) and at endpoint 6-8 months later. Key assessments included activities of daily living (basic and instrumental ADLs), mobility (Short Physical Performance Battery, SPPB), and daily number of steps using actigraphy (ActivPAL). Baseline to endpoint outcomes were compared using paired t-tests or Wilcoxon Signed Rank test.

Results: Veterans who completed the program (N = 24) were largely white males with a mean (SD) age of 74 (8) years, and we included Veterans with no (n = 8), mild (n = 13), and moderate (n = 3) cognitive impairment (with caregiver support provided as needed). Baseline to endpoint improvements were observed for a number of outcomes (see table), reaching statistical significance for mean daily number of steps (p = 0.04).

Conclusions: Home telehealth using this pilot VVC program shows promise in enhancing mobility and physical activity in Veterans, including those with cognitive impairment, transitioning post-hospital discharge. Larger controlled studies will be needed to assess the full potential and range of benefits provided by this VVC program beyond that provided by standard in-person home care.

Key assessment data at baseline versus endpoint

Variable (mean [SD])	Baseline	Endpoint	Effect size	P-value
Basic ADLs	5.0 (1.4)	5.2 (1.5)	0.3	.39
Instrumental ADLs	5.5 (2.6)	6.1 (2.9)	0.5	.10
SPPB	4.4 (3.2)	5.7 (3.7)	-0.3	.14
Number of steps	2206 (1780)	3888 (2895)	-0.6	.04

**B80 Resident Presentation
Rapid Qualitative Analysis of Medical Assistants after Successful Implementation of Gait Speed Measurement in Rooming Procedures**

L. Dairaghi, T. M. Johnson, T. Bogdewiecz, C. Allison, A. Garbin, J. Stevens-Lapsley, H. Lum. *Medicine, University of Colorado System, Denver, CO.*

Background:

Gait speed is a validated tool to rapidly assess a patient’s functional status, mobility, and overall health. It has been called the “functional vital sign.” Gait speed was rapidly and reliably implemented in rooming procedures in a geriatric primary care clinic utilizing an automated gait speed device. Medical assistants (MAs) were interviewed to examine factors influencing the success of this implementation.

Methods:

Semi-structured interviews were performed for 5 out of the 6 MAs in the clinic. A rapid qualitative analysis was performed of these interviews by two reviewers and templated summaries were created and condensed into a matrix.

Results:

When asked positive aspects of measuring gait speed, the MAs identified that it is a helpful tool for patients and can assess mobility, balance, and overall health. They also noted it leads to interventions by the medical teams. A majority (4 out of 5) of the MAs felt that the process of gait speed measurement was easy to do and well-integrated into the rooming process without significant effect on workflow. Some specifically highlighted how integration into their normal walking path was beneficial. Some barriers noted include lack of clarity regarding use of assistive walking devices, patients pausing during the measurement, and patients attempting to walk faster than their average speed. The only negative, which was mentioned during all 5 interviews, was the difficulty with the automated device falling off the wall without permanent installation. When asked about overall effects of patient care, the MAs emphasized patient interest in the new measurement, ease of comparing gait speed over time, and satisfaction with providing patients with resources.

Conclusions:

Gait speed measurements were successfully integrated into the rooming process for patients of a geriatric primary care clinic with overall positive impressions from MAs and minimal disturbance to timing and rooming efficiency. Notable facilitators of this process include utilization of an automated device, incorporation into the existing walking path and education of the MAs on the importance and meaning of the measurement. Barriers that should be addressed during further implementations include device installation errors and guidance on common patient errors.

B81

Smartwatch pilot study to facilitate prehabilitation in frail thoracic surgery patients

S. Kim,¹ S. Kerstiens,³ E. Bender,² M. G. Rizzo,⁴ M. Huisingh-Scheetz,¹ D. Rubin,¹ M. Ferguson,¹ A. Geppert,¹ J. Holl,¹ M. Madariaga.¹
1. *University of Chicago Division of the Biological Sciences, Chicago, IL*; 2. *Stanford University, Stanford, CA*; 3. *Northwestern University, Evanston, IL*; 4. *University of Miami, Coral Gables, FL.*

Background

Prehabilitation (prehab) before surgery improves postoperative outcomes in frail and pre-frail patients, but prehab participation is low in clinical settings. We investigated feasibility, adoption, and acceptability of self-guided prehab delivered at home using a non-networked smartwatch app.

Methods

Patients aged ≥50, frailty phenotype ≥1, and planning to undergo thoracic surgery at a single academic institution were recruited (Jan 2023-Oct 2023). Participants were instructed to wear the watch while awake, perform 20-30 minutes of exercise daily, and respond to app notifications to log activity. Feasibility was measured by % participants who had the planned surgery and returned the watch. Adoption was measured by % preoperative days patients wore the watch and/or logged exercise. Acceptability was measured by phone surveys. Step counts and daily exercise minutes were collected with the custom app log.

Results

35 patients enrolled and were 69% female, 46% Black and averaged 67±8.1 years old. Of those who enrolled, 74% (26/35) of participants completed surgery and returned watches; 14% (5/35) were deemed not fit for surgery, and 11% (4/35) dropped out. Participants who completed the study averaged 41 (range 13-132) preoperative days with the watch, wore the device 68±33% and logged exercise 32±30% of those days. Among all enrolled participants, 91% (32/35) enjoyed the smartwatch and 66% (23/35) found it motivational. Patients averaged 4,666±3,014 steps and 27±13 logged exercise minutes per day preoperatively.

Conclusions

We found high feasibility, moderate adoption, and high acceptability of the customized smartwatch prehab app in pre-frail and frail thoracic surgery patients. Further research is needed to assess program efficacy in increasing activity metrics in the preoperative period.

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B82 Student Presentation

Are Value Champions Effective in De-Implementing Inappropriate Prescribing for People Living with Dementia?:

Qualitative Insights from an Embedded Pragmatic Trial

M. Tabata-Kelly,¹ L. Palazzo,² L. M. Kiel,² J. Perloff,¹ R. B. Penfold.² 1. *Brandeis University Heller School for Social Policy and Management, Waltham, MA*; 2. *Kaiser Permanente Washington Health Research Institute, Seattle, WA.*

Background: To address overprescribing of potentially inappropriate medications (PIMs) for people living with dementia (PLWD), we trained clinician champions across two large accountable care organizations. While clinical champions are a known strategy for implementing evidence-based practices, its application and impact in the de-implementation of PIMs among PLWD is less explored. We conducted

a qualitative study to understand the role and effectiveness of clinical champions in the de-implementation of PIMs among PLWD.

Methods: Web-based key informant interviews were conducted December 2022 – July 2023 using a semi-structured guide based on the de-implementation outcomes framework. Purposeful and convenience sampling were employed. Interviews were recorded and transcribed verbatim, then coded by two researchers. Deductive thematic analysis was conducted.

Results: Seven champions (three pharmacists, two nurse practitioners, and two physicians) participated in the study. Over half were female, and most identified as non-Hispanic White. Champions reported challenges at process- (e.g., care coordination among providers, resistance from family members) and structure levels (e.g., high turnover, time constraints, data availability). To overcome process-level barriers, champions used strategies emphasizing communication and relationship building. Their experiences underscored the key role of organizational support, with many expressing the need for informational technology (IT) infrastructure aligned with their de-implementation efforts. Pharmacists' unique strength as champions lay in facilitating collaboration among providers, patients, and families in the de-implementation process.

Conclusions: Findings from this study suggest clinical champions are effective at the process level to promote de-implementation of PIMs among PLWD. However, achieving improvements in patient outcomes requires organizational-level support, including robust IT infrastructure for tracking and generating actionable data. Our findings have implications for the effectiveness of the clinical champion strategy, which is enhanced by embedding pharmacist champions in the de-implementation of low-value care, especially among PLWD.

B83

Update on an Alzheimer's Dementia Care Program (ADCP) for Patients and Caregivers

A. Obaid,¹ M. Gieniusz,² J. Alvarez,² C. Nouryan,² k. Emmert,² E. Burns.² *1. Geriatric Medicine, Northwell Health, New Hyde Park, NY; 2. Geriatric Medicine, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY.*

Background: ADCP was implemented at a large academic geriatric outpatient practice. Team of MD, NP dementia care specialist and SW centralizes care for patients and families. We report updated impact on caregiver and patient outcomes for 22 months since startup.

Methods: Patients 65+ with diagnosis Alzheimer's and Related Dementia (ARD) and family caregiver enrolled 2/2021 – present. Measures: demographics, functional status (ADL, IADL), Montreal Cognitive Assessment (MoCA). Behavioral and psychological symptoms (BPSD) measured with Neuropsychiatric Inventory (NPIQ), and reason for disenrollment. Caregiver distress and burden assessed with PHQ9, Modified Caregiver Strain Index (MCSI), Dementia Burden Scale (DBS). Data collected baseline and 1-yr. Descriptive statistics and repeated measures ANOVA conducted using SPSS.

Results: Total 229 patient-caregiver dyads. Patient mean age 78.3, 68.6% female. Caregiver mean age 61.2, 70.4% female, 57.3% child, 38.9% spouse. Baseline patient mean MoCA 9.4 (range, 0-22), ADL mean 3.4 (range 0-6), IADL mean 1.2 (range 0-7). NPIQ mean 23.9 (range 0-80). One year follow-up: MoCA decreased to 8.4 (p=0.04), ADL decreased to 3.1 (p<0.01), IADL decreased to 0.7 (p<0.01). NPIQ decreased to 18 (p=0.42). Caregivers: baseline PHQ9 mean 4.0 (range: 0-15), MCSI mean 11.9 (range: 0-23), DBS 26.6 (range: 0-76). One year follow-up for caregivers: PHQ9 decreased to 2.8 (p=0.06), MCSI decreased to 9.8 (p=0.83), DBS decreased to 21.8 (p=0.54). Total of 90 patients (39.3%) disenrolled due to skilled nursing admit (3), hospice admit (20), withdrawal (55), death (12).

Conclusion: As expected, one-year follow up on patients showed progression of cognitive impairment and loss of function, along with decrease in BPSD. Caregivers reported improved depression.

There were nonsignificant decreases in MCSI, and DBS. Overall there was significant attrition due to withdrawal and mortality. Hospice admission was 22%. As enrollment continues, improvements in caregiver stress may become more significant. Qualitative feedback from caregivers is being collected.

B84

Implementation of a nurse practitioner coordinated preoperative frailty screening and consultation program in Veterans undergoing surgery.

A. Samant, M. Kaganovskaya, W. Hung, A. Baim-Lance, L. Hall, T. Heimann, F. Ko. *James J Peters VA Medical Center, New York, NY.*

Background: Frail older adults undergoing surgery are particularly susceptible to postoperative morbidity and mortality. Preoperative frailty assessment enables risk stratification and provides an opportunity to optimize at-risk patients prior to surgery. We sought to: (1) develop and implement a Nurse Practitioner (NP)-coordinated frailty assessment approach linked to an interdisciplinary high-risk surgery consultation Quality Surgery Board (QSB) in frail Veterans pending surgery; and (2) quantify risks discussed in QSB consultation.

Methods: Frailty was assessed using the 14-item Risk Analysis Index (RAI) in surgery clinics or virtually to identify high surgical risk Veterans at the point-of-care before surgery. High-risk frail patients (RAI>37) were referred for preoperative QSB evaluation via E-Consult to perform risk stratifications and provide alternative recommendations. Program feasibility was evaluated by the completion of RAI screening and QSB consultation. Risk factors discussed were quantified as medical optimization per standard of care, the 4Ms of age-friendly health system, and social determinants of health (SDOH).

Results: The number of monthly RAI screen completed progressively increased since program launch in Feb 2023, with a sustained adherence rate of 70-80% since the fifth month of implementation. In total, 203 QSB consultations were completed over the 8 months implementation period and led to postponement of high-risk surgery in 22.7% of cases. QSB discussion centered on cardiac (51.2%), pulmonary (30.9%) and anesthesia (27.6%) concerns related to medical optimization. Few QSB case discussion focused on the 4Ms, such as poor cognition (1.6%), psychiatric medication management (0.8%), substance abuse (3.3%), goals of care (8.9%), dependence for care after surgery (0.8%), and polypharmacy (4.1%) or SDOH factors such as access to housing (4.1%) and adequate home support (1.6%).

Conclusion: NP care coordination in frail patients augments preoperative frailty screening and interdisciplinary surgery board risk assessment. The enhancement of geriatrics expertise in QSB membership may strengthen thoughtful considerations for geriatric and social vulnerabilities in high-risk surgery patients.

B85

Exploratory Study of Virtual Reality-Based Cognitive Assessment

J. Cheng,¹ R. Wang,² H. Davidovics,¹ J. Bakshian,² R. Sebti,² M. Waksman,² A. Naeim.² *1. VA Greater Los Angeles Healthcare System, Los Angeles, CA; 2. UCLA Health, Los Angeles, CA.*

Background

Cognitive impairment is a leading cause of disability in older adults. Identifying patients with cognitive deficits can allow for timely interventions, but clinical assessments can be time-consuming and require multiple specialists. The use of computerized assessment may be an alternative or complementary approach to traditional assessment. The purpose of this study was to explore the feasibility of virtual reality (VR)-based cognitive assessment tools and compare them to standard cognitive assessments.

Methods

This was a single-center, multi-cohort, pilot study of adults >50 years old. Subjects were recruited and divided into 3 cohorts: healthy, subjective memory complaints, and those with “chemo brain.” Standard cognitive assessments included Montreal Cognitive Assessment (MoCA), Trail Making Test (TMT), Word Recall (WR), and Stroop task. Subjects were assessed for up to 3 total sessions. The VR platform used was the Virtuleap Enhance application. Games included React (R; task switching, response inhibition), Memory Wall (MW; visuo-spatial short-term memory), Magic Deck (MD; long-term memory), and Odd Egg (OE; deductive reasoning). Correlation between VR and standard cognitive assessments were determined by pairwise correlation and significance was determined by $p < 0.05$.

Results

The overall cohort included 75 participants (28% chemo, 27% subjective memory, and 45% healthy) representing a total of 170 sessions. Average age of the cohort was 66 years & approximately 52% were female. Unadjusted pairwise correlation of the overall cohort for all sessions demonstrated that the absolute correlation between the individual standard cognitive tests ranged from 0.14 to 0.68 ($p < 0.001$). Comparing the standard cognitive tests to VR-based games, VR game R exhibited the strongest absolute correlation: MOCA with R ($r=0.39$); TMT with R ($r=-0.53$); Stroop with R ($r=-0.58$); WR with R ($r=0.42$) ($p < 0.001$). Among the other VR games, MW had the strongest absolute correlation with Stroop ($r=-0.44$); MD with TMT ($r=-0.44$); and OE with Stroop ($r=-0.54$) ($p < 0.001$).

Conclusions

VR-based cognitive games showed absolute correlation with standard cognitive tests that was comparable to the correlation amongst the individual standard cognitive tests. Next steps include assessing test-retest reliability of VR assessment and performing multivariate linear regression within each cohort of participants.

B86
INTEGRATING A DELIRIUM PREDICTION MODEL IN EHR TO AUTOMATE DELIRIUM PREDICTION

S. Pagali,¹ S. Ayanian,² A. Ryu,² M. Burton.² *1. Medicine, Division of Geriatrics and Gerontology, Mayo Clinic Minnesota, Rochester, MN; 2. Medicine, Mayo Clinic Minnesota, Rochester, MN.*

Background: Multicomponent delirium prevention strategies are proven successful in reducing delirium incidence and duration in hospitalized patients. Identifying patients at risk for delirium is difficult and prediction tools are not used in clinical practice widely. Different models were studied and validated, but Electronic Health Record (EHR) integration or implementation process have not been reported. We describe the implementation of a validated delirium prediction tool into EHR and clinical practice.

Methods: Integrating an automated delirium prediction tool translates to reduced human effort, increased consistency, and accuracy. Risk prediction also changes with clinical status changes. The three important steps to integrate are: First, identifying and validating the variables in EHR while integrating the risk prediction model in EHR. Second, evaluating the model in a EHR compatible environment prior to integration. Third, developing workflows in EHR to go-live with implementation.

Results: Automated delirium prediction tool implementation alleviated avoidable nursing documentation requirements that helped in the context of nursing shortages. The implementation was challenging as the delirium prediction model had to run separately on medical and surgical patients, given different variables. The two models were uploaded into an EHR native cloud service where they receive live data feeds and provide a delirium probability on a scale of 0-1 every 12 hours. The results of the model are then transmitted back to the EHR and displayed in patient lists for clinicians, and nursing documentation flowsheets for nurses. The probabilities are color coded to indicate

low, intermediate, or high probability. For patients who are low probability, nurses can perform a formal Brief Confusion Assessment Method (bCAM) once a day rather than twice a day which aligns with resource optimization. For higher risk patients bCAM is performed twice a day and delirium prevention measures are implemented.

Conclusions: We highlight the feasibility of implementing an Artificial Intelligence delirium prediction model within the EHR and integrating it with existing workflows to benefit patients and clinicians. The process to integrate and implement delirium prediction tool is tangible across healthcare organizations with Geriatrics and Informatics expertise.

B87
Reducing Anticholinergic Burden in Geriatric Assessment Clinic - a Retrospective Cohort Study

K. Orbe,¹ C. Rubenstein, E. Sedarski, S. Rennebohm. *Swedish Medical Center, Seattle, WA.*

Background: Medications with anticholinergic effects can lead to adverse drug events in older adults, including falls, delirium, and death. Interventions to reduce anticholinergic burden largely fall on the primary care provider. A Geriatric Assessment Clinic (GAC) offers an opportunity to reduce anticholinergic burden with expert guidance. We investigated whether interprofessional geriatric assessment led to a decrease in anticholinergic burden in older adult patients.

Methods: GAC is a consult-based clinic staffed by an interprofessional team including geriatric attendings, geriatric fellows, family medicine residents, clinical pharmacy residents, a social worker, and psychology doctoral candidates that generates recommendations to primary care providers to reduce polypharmacy and deprescribe high risk medications. Baseline anticholinergic burden was assessed using the Anticholinergic Burden Calculator at the time of the GAC. Anticholinergic burden was recalculated using a medication list from a primary care visit 6 months after initial GAC and compared to pre-intervention anticholinergic burden.

Results: A paired samples t-test was performed to compare anticholinergic burden at the time for GAC and 6 months after GAC. There was a significant difference in anticholinergic burden between the time of GAC ($M=3$, $SD = 3.80$) and 6 months post GAC ($M=2.15$, $SD=2.60$; $t(52)=3.43$, $p=0.0006$). Of our 63 patients, 57% were nonwhite. A second paired t test was performed on patients identified as nonwhite. In this subgroup, there was a significant difference in anticholinergic burden at the time of GAC ($M=2.83$, $SD=4.0$) and 6 months post GAC ($M=2.07$, $SD=2.8$; $t(30)=2.12$, $p=0.02$)

Conclusion: Interprofessional GAC is associated with a reduction in anticholinergic burden in our study. Referral to GAC is a feasible intervention primary care providers can employ to help reduce anticholinergic burden. One limitation of the study is that the Anticholinergic Burden Calculator used to generate anticholinergic burden did not take into account differing dosages of medications or PRN usage of medications. Areas of future study include exploring ways to educate patients on the risk of anticholinergic burden, standardizing note templates to clearly quantify risk for PCP, and evaluating the data including variables such as dementia, MCI, social determinants of health, and race.

B88
eConsultation for deprescribing among older adults: evaluating barriers to and facilitators of implementation

M. Growdon, L. Hunt, M. Miller, M. Halim, L. Karliner, R. Gonzales, M. Steinman, K. Harrison. *UCSF, San Francisco, CA.*

Background: Electronic consultations (eConsults) allow for asynchronous consultation between primary care providers (PCPs) and specialists. eConsults have been used successfully to manage a variety of conditions and have potential to help PCPs manage polypharmacy

and promote deprescribing. To develop a deprescribing eConsult intervention, we elicited clinician perspectives on barriers to and facilitators of using eConsults for deprescribing among older adults within a large university health network.

Methods: We recruited PCPs, geriatricians, and pharmacists for semi-structured interviews. Interviews explored barriers/facilitators of 1) successful deprescribing among older patients and 2) potential use of eConsults to facilitate deprescribing. We used the COM-B (Capability, Opportunity, Motivation, and Behavior) model to structure the interview guide and used rapid analysis methods to identify barriers/facilitators of deprescribing behaviors.

Results: Of 28 participants, 19 were PCPs (13 physicians, 4 residents, and 2 nurse practitioners), 7 were geriatricians, and 2 were pharmacists. Successful deprescribing: Most PCPs considered deprescribing important but identified myriad barriers to deprescribing (e.g. time constraints, fragmented clinical care, lack of pharmacist integration, and patient/family resistance). Use of eConsults for deprescribing: Both PCPs and geriatricians highlighted the limits of contextual information available through electronic health records (vs. face-to-face) to render specific and actionable eConsults (e.g. knowledge of prior deprescribing attempts). Participants from all groups expressed interest in a targeted process whereby eConsults could be offered for selected patients based on key factors (e.g. polypharmacy or certain comorbidities) and accepted or declined by PCPs, with pithy recommendations delivered in a timely manner relative to patient appointments. This was encapsulated by one PCP: “they need to be crisp and to the point to be helpful, with specific suggestions of something that could be discontinued or switched...not, ‘did you know your patient is on over 12 medicines?’”

Conclusions: Clinicians identified multifaceted factors influencing the utility of eConsults for deprescribing among older adults in primary care. Deprescribing eConsult interventions should be timely, actionable, and mindful of limitations of electronic chart review.

B89

Optimizing delirium detection in hospitalized older adults: a Natural Language Processing approach

L. D. Tavares,¹ C. G. Miguel,¹ J. A. Bittencourt,¹ M. Gazzola,¹ T. Rozzino,¹ T. Avelino-Silva,² B. V. Correa,¹ C. Szlejfi.¹ *1. Hospital Israelita Albert Einstein, Sao Paulo, Brazil; 2. Universidade de Sao Paulo, Sao Paulo, Brazil.*

Background: Delirium, a complex and often underdiagnosed condition, poses significant diagnostic challenges in healthcare settings. Leveraging advancements in artificial intelligence, particularly natural language processing (NLP), offers a promising approach to improve delirium screening and diagnosis. We aimed to develop and validate an NLP neural network to identify delirium symptoms from free-text clinical notes in Brazilian Portuguese.

Methods: We included 500 admissions of older adults aged ≥65 years at a quaternary care hospital, from 2018 to 2022. We collected free-text clinical notes from the electronic health records (EHR), documented by various healthcare professionals, totaling 27,760 entries. Geriatricians were trained to annotate key delirium symptoms: acute onset or fluctuation, inattention, confusion or disorganized thinking, spatial-temporal disorientation, altered level of consciousness, psychomotor agitation, hypoactivity, lethargy, and sleep-wake cycle disturbances. We employed a BERT-based transformer language model to classify symptoms in clinical notes, initially pre-trained in Brazilian Portuguese, which we then fine-tuned with data from 400 admissions and validated with the remaining 100. The model’s performance was assessed using the F1 score, the harmonic mean of precision and sensitivity.

Results: Our sample had an average age of 80 years, with a slight female majority (51%). Overall, the NLP model achieved a macro F1 score of 77% to identify delirium symptoms. F1-scores for each

symptom were: acute onset or fluctuation (78%), inattention (70%), confusion or disorganized thinking (92%), spatial-temporal disorientation (90%), altered level of consciousness (84%), psychomotor agitation (81%), hypoactivity or lethargy (71%), and sleep-wake cycle disturbance (49%).

Conclusions: The trained NLP model demonstrated good performance in detecting delirium symptoms from clinical notes of hospitalized older adults, with some symptoms identified more accurately than others. These results suggest an avenue for enhancing delirium diagnosis in Brazilian clinical settings. Future directions involve exploring the integration of our NLP models with EHR systems to aid providers in the early detection and management of delirium.

B90

Barriers to a home-telehealth program to enhance mobility and physical activity in post-hospital discharge older Veterans

D. Liebrecht,¹ S. Bjornson,¹ K. Phillips,² N. Alexander.^{2,3} *1. The University of Iowa, Iowa City, IA; 2. VA Ann Arbor Geriatric Research Education and Clinical Center, Ann Arbor, MI; 3. University of Michigan Michigan Medicine, Ann Arbor, MI.*

Background: Care transition interventions to enhance mobility or physical activity of older adults often yield mixed results and are not feasible or sustainable. The objective was to examine potential barriers influencing success of an innovative pilot program using Veterans Administration (VA) Video Connect (VVC) to enhance mobility and physical activity in older Veterans post-hospital discharge.

Methods: Program eligibility included Veterans aged ≥65 following a recent acute Midwestern VA hospital discharge where additional rehabilitation goals were identified. A physical activity trainer supported the progression of rehabilitation goals via a home exercise program. Veterans completed main outcome measures at baseline (near hospital discharge) and at endpoint 6-8 months later; potential barriers (readmission, cognitive impairment, post-surgery status, pain interference) were measured at regular intervals throughout their enrollment. Main outcome measures included activities of daily living (basic and instrumental ADLs), mobility (Short Physical Performance Battery, SPPB), and daily number of steps using actigraphy (ActivPAL). We examined relationships between potential barriers and change in main outcomes using independent t-tests.

Results: Veterans who completed the program (N = 24) were largely white males with a mean (SD) age of 74 (8) years, and had no (n = 8), mild (n = 13), or moderate (n = 3) cognitive impairment (with caregiver support provided as needed). Whereas post-surgery status tended to facilitate outcome improvement, moderate to severe pain interference and readmission trended as potential barriers, with cognitive impairment reaching statistical significance as a barrier to basic ADL improvement (p < 0.05).

Conclusions: Results indicate potential modifiable and non-modifiable barriers to success of a home-telehealth program to enhance mobility and physical activity, which will help to better target appropriate resources to optimize outcomes and address potentially modifiable factors such as pain.

Relationships between potential barriers and change in main outcomes by effect size

Effect sizes by variable	Basic ADLs	Instrumental ADLs	SPPB	Number of steps
Readmitted	-0.16	0.11	-0.52	-1.28
Post-surgery	-0.07	-0.11	0.66	0.74
Cognitive impairment	-1.09*	-0.44	-0.11	-0.28
Moderate to severe pain interference	0.53	-0.05	-0.67	-0.35

*p<0.05

B91 Student Presentation
Cognitive Effects of a Combined Lifestyle Intervention in a Diverse Sample of Older Women with Obesity

C. W. McLaren.^{1,2} 1. *Department of Clinical and Health Psychology, University of Florida, Gainesville, FL*; 2. *Department of Physiology and Aging, University of Florida, Gainesville, FL*.

Background: The escalating prevalence of obesity among older adults has elevated the susceptibility of this population to cardiometabolic dysfunction, functional decline, and subsequently cognitive impairment. Non-Hispanic black women notably demonstrate disproportionately higher rates of both obesity and its more severe forms compared to other groups. Although integrated approaches involving dietary restriction and exercise (DR+E) have demonstrated efficacy in enhancing health and physical well-being among older women, their influence on cognitive function remains a subject of uncertainty. Furthermore, the existing body of research is predominantly homogeneous, with limited exploration into diverse populations. Consequently, this study seeks to fill these gaps by examining the effects of a DR+E intervention on cognitive function in a diverse sample of sedentary, elderly women with obesity.

Methods: For this secondary analysis, participants were randomly assigned to a 24-week intervention: (i) dietary-restriction plus exercise (DR+E) or (ii) educational-control (EC). In the DR+E group, participants engaged in group-based weight management focused on calorie-restriction and three weekly supervised exercise sessions, including brisk-walking and lower-body resistance training. The EC group attended monthly health education lectures. Primary measures included the digit symbol substitution task (DSST) and controlled oral word association test (COWA).

Results: Of the 29 participants included in the current study, 15 were randomized to the DR+E group (mean age = 63.4 [4.6] yrs, non-Hispanic black= 53%) and 14 to the EC group (mean age = 64.8 [6.8] yrs, non-Hispanic black=56%). In the DR+E group, DSST scores significantly improved compared to baseline (Δ 7.3 [8.8], $p < 0.05$) and the EC group (Δ -0.64 [10.1], $p < 0.05$). There were no significant changes in COWA scores for either the DR+E or EC group compared to their baseline values (1.2 [6.1] vs. -3.2 [6.3]), and no significant between group difference ($p = 0.07$).

Conclusion: This study demonstrates that a DR+E intervention can enhance some aspects of cognitive function in sedentary older women with obesity, as measured by the DSST.

B92
Reported impact of interventions on the Drug Burden Index and on clinical outcomes in these studies: a systematic review of randomized controlled trials

B. M. Liu,^{1,2} M. Redston,³ K. Fujita,^{1,2} J. Thillainadesan,² D. Gnjidic,⁴ S. N. Hilmer.^{1,2} 1. *Ageing and Pharmacology Laboratory, Kolling Institute of Medical Research, St Leonards, NSW, Australia*; 2. *The University of Sydney School of Medicine, Sydney, NSW, Australia*; 3. *University of New South Wales Medicine & Health, Sydney, NSW, Australia*; 4. *The University of Sydney School of Pharmacy, Sydney, NSW, Australia*.

Background

Deprescribing involves the supervised withdrawal of inappropriate medications. The Drug Burden Index (DBI) calculates a person's total exposure to anticholinergic and sedative medications. The aims of this review were to investigate what deprescribing interventions are effective in reducing the DBI and their impact on clinical outcomes.

Methods

A systematic review with meta-analysis was performed. A literature search of electronic databases, citation indexes and grey literature was performed between 1 April 2007 and 1 September 2023.

Randomized controlled trials of interventions where the DBI was measured as an outcome in human studies in any setting were included. Quality assessment was performed using the Cochrane risk of bias tool.

Results

Of the 1721 records identified, nine studies met the inclusion criteria. Five studies were conducted in the community, two in nursing homes and two in hospital. The mean or median age was ≥ 75 years and most participants were female in all studies. Three interventions resulted in a reduction in the DBI (one pharmacist independent prescriber led in nursing homes (adjusted rate ratio 0.83, 95% CI: 0.74 to 0.92), one pharmacist or nurse practitioner led in hospital (adjusted mean difference (MD) -0.28, 95% CI: -0.51 to -0.04) and one geriatrician and pharmacist led in hospital (MD -0.28, 95% CI: -0.52 to -0.04)). Preliminary meta-analysis showed no difference in the change in DBI between the control and intervention groups in the community including nursing homes (MD -0.04, 95% CI: -0.09 to 0.01) or hospital setting (MD -0.19, 95% CI: -0.45 to 0.06). There was no effect of the interventions on outcomes reported including function, falls, frailty, quality of life, healthcare utilisation, mortality, and mixed effects on cognition.

Conclusion

There was no clear impact of randomized deprescribing interventions on the reduction in DBI exposure or impact on clinical outcomes.

B93
Older Adults Pursue Encore Careers Promoting Inclusion of Peers in Clinical Trials

K. A. Nearing.^{1,2} 1. *Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO*; 2. *Geriatric Research Education and Clinical Center, VA Eastern Colorado Health Care System, Aurora, CO*.

Background: We train older adults (average age 68; range: 56-82) for encore careers as Older Adult Research Specialists (OARS). OARS support the recruitment and retention of peers in clinical trials. Health Navigation training is the foundation of OARS' preparation.

Methods: The 14-week, 140-hour virtual training program begins with an *Orientation to Online Learning Tools*. Subsequently, we host tech "office hours" 2x/week throughout the 14-week training program to support computer literacy, retention in the virtual training program, and workforce readiness. The Health Navigation curriculum (1st 7 weeks) spans foundational courses such as Diversity, Equity, Inclusion; Mental Health First Aid; and, Motivational Interviewing. Six Health Navigation modules address topics such as HIPAA and healthcare law and ethics, cultural competency, health literacy, social determinants of health, introduction to chronic diseases and community resources for addressing social determinants of health. The OARS training component (the second 7 weeks) prepares individuals trained in health navigation for research navigator roles. The curriculum covers clinical trials, frameworks/models to support including older adults in clinical research, evolution of human subjects research protections, elements of informed consent, skill-building related to facilitating informed consent, and team-based projects that generate novel solutions to promote inclusion in clinical trials.

Results: We have trained 4 cohorts: Spring 2022 (n=8), Fall 2022 (n=10), Spring 2023 (n=13) and Fall 2023 (n=12). Evaluations consistently yield high satisfaction ratings for each live learning session (average across all sessions: 4.7 on a 5-point scale). Participants report significant growth in self-efficacy related to required competencies. To date, 15 OARS have been hired; 3 graduates are pursuing roles as health navigators; 3 others chose to remain in their current roles (e.g., serving as a Community Research Liaison as part of our local Clinical and Translational Sciences Award). Interviews with OARS and Principal Investigators assess job satisfaction/preparedness and impact on recruitment and retention.

Conclusions: By focusing on intergenerational learning, encore careers, and research and innovation, OARS are advancing our institutional priorities as an Age-Friendly University.

B94

Anxiety and Depression Decrease Engagement in Advance Care Planning

R. McMahan, Y. Shi, V. Tang, D. Barnes, R. Sudore. *School of Medicine, University of California, San Francisco, San Francisco, CA.*

Background: Anxiety and depression are known barriers to participation in healthcare screening and preventative care. They also may influence decision making for serious and chronic illness and engagement in advance care planning (ACP). The purpose of this study was to evaluate whether anxiety and depression decrease ACP engagement in response to a proven, evidenced-based ACP intervention (PREPAREforYourCare.org).

Methods: We performed a subgroup analysis of PREPARE RCT data to evaluate if anxiety and depression had an effect modification on ACP engagement. Participants were English- and Spanish-speaking, ≥ 55 years of age, and from a San Francisco county hospital. Anxiety was measured by the Generalized Anxiety Disorder questionnaire (GAD-7) and depression by the Patient Health Questionnaire (PHQ-8) using standardized cut-offs of ≥ 10 for moderate-to-severe symptoms. The validated ACP Engagement Survey measured ACP behavior change (e.g., self-efficacy, readiness; mean 5-point Likert score) with higher scores representing higher engagement. Analysis used adjusted linear and logistic regression.

Results: Mean age of 986 participants was 63 +/- 6 years; 51% identified as Latino, 19% White, 18% Black, 8% Asian, 4% multi-ethnic; 39% had limited health literacy; 45% were Spanish-speaking; 13% had depression and 10% anxiety. Mean ACP Engagement score increase from baseline to 12-months for non-anxious/non-depressed participants was 0.78 ($p < 0.001$) (0.2 threshold is considered clinically meaningful). Participants with depression had an increase of 0.42 ($p < 0.001$) and those with anxiety, 0.32 ($p = 0.001$).

Conclusions: The PREPARE for Your Care intervention increased engagement for participants with and without anxiety and depression to a clinically meaningful degree. However, participants with anxiety and depression experienced 40-50% lower ACP engagement than those without these mental health conditions. These results suggest that individuals with anxiety and depression may require more support in the ACP process.

B95 Encore Presentation

Depression and benzodiazepine receptor agonist deprescribing

S. Ghadimi,^{1,2} C. Alessi,^{2,1} J. L. Martin,^{2,1} J. Dzierzewski,³ A. Moore,⁴ M. Zeidler,^{2,1} M. S. Badr,^{6,7} E. Der-Mcleod,² S. Naem,² J. P. Smith,⁵ M. N. Mitchell,² C. H. Fung.^{2,1} *1. Medicine, University of California Los Angeles, Los Angeles, CA; 2. VA Greater Los Angeles Healthcare System, Los Angeles, CA; 3. National Sleep Foundation, Arlington, VA; 4. University of California San Diego, La Jolla, CA; 5. VISN 19 VA Rocky Mountain Network, Glendale, CO; 6. Wayne State University, Detroit, MI; 7. John D. Dingell VA, Detroit, MI.*

Background

Clinical guidelines recommend avoiding benzodiazepines and z-drugs (BZRAs) in older adults due to an increased risk of adverse outcomes (e.g., falls). Efforts to reduce older adults' BZRA use are growing, yet long-term BZRA deprescribing among patients with insomnia is challenging. We examined if clinical conditions commonly comorbid with insomnia (i.e., depression, pain, nightmares, anxiety) are barriers to BZRA deprescribing.

Methods

In a multi-site trial comparing two BZRA deprescribing methods (both include cognitive behavioral treatments for insomnia),

participants aged ≥ 55 years with chronic BZRA use for insomnia ($n=188$, mean age 69.2, sd 8.3) completed baseline Patient Health Questionnaire-9 (PHQ9), Brief Pain Inventory (BPI; severity and intensity), Disturbing Dreams and Nightmare Severity Index (DDNSI), and Generalized Anxiety Disorder-7 (GAD-7). Deprescribing outcomes (discontinuation, dose, and frequency of use over 7-days) were assessed 1 week and 6 months after completing the program. Using logistic and linear regression models, we assessed if depression, pain severity/intensity, nightmare severity, and anxiety were predictors of BZRA deprescribing outcomes, controlling for site, gender, and age.

Results

Among participants assessed 1 week ($n=178$) and 6 months ($n=176$) after intervention, 73% and 62% discontinued their BZRA use, respectively. Worse PHQ-9 was associated with increased odds of discontinuation (OR 1.12, 95% CI 1.03-1.22, $p=0.006$) at 6 months, but not frequency of use or dose at follow up (p values $\geq .31$). BPI (p values $\geq .09$), DDNSI (p values $\geq .40$) and GAD-7 (p values $\geq .11$) were not significant predictors of discontinuation, frequency, or dose at follow-up.

Discussion

More severe depressive symptoms at baseline is a predictor of BZRA deprescribing success long-term. Pain, nightmares, and anxiety are thought to be barriers to BZRA discontinuation, but these results suggest patients may be able to discontinue BZRAs successfully. Future research should investigate why this relationship between depression and BZRA discontinuations exists.

B96

Fear of falling in older adults: A feasibility randomized control trial of virtual GERAS DANCE

P. Hewston,¹ A. Dashti,¹ G. Ioannidis,¹ C. Kennedy,¹ G. Hladysz,² J. St Onge,¹ S. Marr,¹ S. Bray,¹ M. Noseworthy,¹ L. Thabane,¹ A. Papaioannou.³ *1. McMaster University, Hamilton, ON, Canada; 2. YMCA Hamilton Burlington Brantford, Hamilton, ON, Canada; 3. Medicine, McMaster University, Hamilton, ON, Canada.*

Background: Fear of falling is prevalent among older adults, impacting confidence to perform daily activities and potentially leading to decreased mobility and functional independence. Dance may enhance proprioception (awareness of body position), balance control, and reduce fear of falling. We explored the effect of virtual GERAS DANCE, an online intervention designed with geriatric medicine and rehabilitation expertise, on the fear of falling in older adults (aged 60+). **Methods:** This study utilized a single-center, prospective, parallel-group randomized controlled trial (RCT). We recruited 50 older adults. Participants were randomized to receive 6-weeks (1-hour class twice weekly) of virtual GERAS DANCE or usual care. Fear of falling was assessed with the Falls Efficacy Scale International (FES-I) questionnaire of 16 activities measured on a 4-point Likert scale (1 [not concerned at all] to 4 [very concerned]) and summed for total FES-I score (range: 16-64). FES-I scores were classified as no (=16), low (17-19), moderate (20-27) and high (≥ 28) concern about falling. Two-way repeated measures ANOVAs (2 [Time: Pre-Post] x 2 [Group: intervention group or control group]) were used. $P \leq 0.05$ was considered statistically significant. **Results:** Fifty older adults (mean age=75.02(5.89) years, range: 63-92, 92% female) participated, with 72% reporting moderate-to-severe fear of falling on the FES-I. The retention rate of participants was 84% and the average class attendance of the study cohort was 77%. There was a time x group interaction for the FES-I total score ($p=0.003$). Post hoc analysis revealed the intervention group had less fear of falling when walking on a slippery surface (FES-I item 11, $p=0.036$) and on an uneven surface (FES-I item 14, $p=0.031$) after 6 weeks of virtual GERAS DANCE. No change in these items was found in the control group ($p > 0.05$). One adverse event unrelated to the study intervention was reported. **Conclusions:** Our study shows promising results that virtual GERAS

DANCE is a safe intervention that may reduce fear of falling in older adults. Future research is needed to determine the optimal dose and if dance results in greater benefits than other types of exercise.

B97

Engagement with an Interactive Online Advance Care Planning Platform Among Older Adults

R. Roberts,¹ K. Cherry,¹ D. Mohan,¹ E. Kirkendall,² T. Fofanova,¹ J. Gabbard.³ 1. *Koda Health, Houston, TX*; 2. *Wake Forest Center for Healthcare Innovation, Winston-Salem, NC*; 3. *Wake Forest University School of Medicine, Winston-Salem, NC*.

Background: Advance care planning (ACP), the crucial process wherein patients express their personal goals, values, and preferences for future medical care, is often under-utilized among older adults. Digital health tools may help facilitate this process. However, their use in older adults has been understudied.

Objective: This pilot study evaluated patients' engagement with the Koda Health platform, an online patient-facing ACP platform, as compared to a structured telehealth ACP conversation with a trained navigator.

Methods: Older adults (aged 50 or older) who had an active MyChart account at an academic healthcare system were recruited to participate via electronic invitations. Of 3877 total, 2850 patients received a link to the Koda platform (Path 1) and 1027 received a link to schedule a telehealth ACP call (Path 2). Before and after completing their respective intervention path, participants completed a survey which included self-report questions of ACP knowledge (e.g., "Do you know what Advance Care Planning is?") and readiness (e.g., "How ready are you to talk to your healthcare provider about the kind of medical care you would want if you were very sick?"). Outcomes were engagement rates and change in knowledge and readiness from pre to post for both paths.

Results: In total, 241 patients clicked the invite link to begin the study (Mean age=64, SD=9.7, 74.7% white). For Path 1 (Koda platform), 6.4% (n=183) of invitees enrolled, compared to 5.6% (n=58) for Path 2 (telehealth). Of those who began the study, 70.5% in Path 1 and 62.3% in Path 2 completed the intervention, meaning that patients in Path 1 were 1.8 times more likely to complete ACP than those in Path 2 (95% CI=[0.984, 3.328], p=.028). Knowledge of ACP significantly increased for both the Koda and telehealth groups. Readiness for ACP decisions significantly improved for the Koda group only.

Conclusion: This study demonstrated that the Koda Health ACP platform led to improved ACP documentation, as compared to a more labor-intensive telehealth intervention. Findings suggest that digital health tools like Koda are effective in helping older adults learn about and feel more comfortable with ACP, while potentially facilitating greater engagement in care planning.

B98

Dementia Identification with Claims vs. Minimum Data Set Measures in Residents of Veterans Affairs (VA) and non-VA Nursing Homes

C. T. Thorpe,^{2,1} J. Niznik,^{1,2} F. Sileanu,² L. C. Hanson,¹ C. Colón-Emeric,³ J. Lund,¹ X. Zhao,² A. Kinlaw,¹ T. Radomski,² C. Kelley,¹ A. Ehler,^{1,2} B. Cao,^{1,2} M. Gilliam,¹ L. Schleiden.² 1. *The University of North Carolina at Chapel Hill, Chapel Hill, NC*; 2. *VA Pittsburgh Healthcare System, Pittsburgh, PA*; 3. *Duke University, Durham, NC*.

Background: Linked claims and Minimum Data Set (MDS) assessments are often used in research with nursing home (NH) residents with dementia. We compared claims-based vs. MDS-based methods for identifying possible dementia in 2 national cohorts: 1) Veterans in VA Community Living Centers (CLCs) and 2) Medicare beneficiaries in Medicare-certified NHs.

Methods: We used the VA Residential History File, MDS, Corporate Data Warehouse (CDW), and Medicare claims for Veterans

to build the VA Cohort: 2015-21 CLC admissions for Veterans aged ≥65 dually enrolled in VA and Medicare. We used Medicare claims and MDS for a 20% sample to build the Medicare cohort: admissions for non-skilled NH care over 2018-19 for Part A, B, and D enrollees aged ≥67. We defined 2 measures of possible dementia: 1) claims/CDW diagnosis using Chronic Conditions Warehouse (CCW) algorithms for Alzheimer's disease or non-Alzheimer's dementia; 2) score of ≥2 on MDS Cognitive Function Scale (CFS), indicating mild, moderate, or severe cognitive impairment. For each cohort, we calculated sensitivity, specificity, and positive predictive value (PPV) of claims/CDW for identifying CFS impairment.

Results: In the VA Cohort (n=54,234), 39% had dementia in claims/CDW, and 51% had CFS impairment (mild 24%, moderate 17%, severe 10%). In the Medicare Cohort (n=346,013), 41% had dementia in claims and 45% had CFS impairment (mild 23%, moderate 19%, severe 3%). Claims/CDW had 57% sensitivity, 80% specificity, and 74% PPV for identifying at least CFS mild impairment in the VA Cohort, vs. 64% sensitivity, 78% specificity, and 70% PPV in the Medicare cohort. To identify only moderate or severe CFS impairment, sensitivity of claims/CDW was higher (71% in VA, 79% in Medicare), but PPV was lower (50% in VA, 42% in Medicare).

Conclusions: Similar proportions of NH residents were identified with possible dementia using the claims algorithm or MDS CFS in VA vs. Medicare. Sensitivity and PPV of the claims algorithm were similarly affected in both systems by choice of mild vs. moderate cutoff for CFS impairment. More work is needed to understand reasons for somewhat low observed PPV of claims for at least mild CFS impairment.

B99

Impact of hospitalizations on problematic medication use among community dwelling persons with dementia

W. Deardorff,¹ B. Jing,¹ M. Growdon,¹ K. Yaffe,¹ W. Boscardin,¹ K. Boockvar,² M. Steinman.¹ 1. *Division of Geriatrics, UCSF, San Francisco, CA*; 2. *Division of Geriatrics, UAB, Birmingham, AL*.

Background: Hospitalizations are frequently distressing and disruptive for persons with dementia (PWD) in part due to high rates of delirium, pain, insomnia, and exacerbations of chronic conditions that may contribute to potentially problematic medication use. We sought to determine the impact of hospitalizations on longer-term problematic medication use among PWD.

Methods: We included community-dwelling adults in the Health and Retirement Study aged ≥66 classified as having dementia who had a hospitalization from 2008-2018. We characterized potentially problematic medications as: 1) medications that negatively affect cognition (strongly anticholinergic, sedative-hypnotics), 2) medications from 2019 Beers criteria, and 3) medications from STOPP criteria. To capture durable changes in medication use, we compared problematic medication use 4 weeks pre-hospitalization (baseline) to 4 months post-hospitalization period (longer-term use). We used a generalized linear mixed model with Poisson distribution adjusting for age, sex, comorbidity count, and number of pre-hospital medications.

Results: Among 504 PWD with a hospitalization, mean age was 84 years (SD=8), 66% female, and 23% Black. Overall, there was a small increase in potentially problematic medications in the pre vs. post-hospital period (adjusted mean medications 1.3 vs. 1.4, respectively; p=0.01) compared to no change in the months preceding the hospitalization. This was similar across medications that negatively affect cognition and those in Beers/STOPP. Results were consistent across subgroups by hospital length of stay and whether the PWD was admitted to a skilled nursing facility or had a hospital re-admission. Individuals with <5 pre-hospital medications had a greater increase in post-hospital problematic medications than those with ≥5 pre-hospital medications (p=0.01 for interaction; adjusted mean difference for pre vs. post-hospital problematic medications of 0.6 for those with <5 medications vs. 0.1 for those with ≥5 medications).

Conclusions: A hospitalization had a small effect on changes in longer-term problematic medication use among PWD. This effect was larger for PWD on fewer pre-hospital medications. Our results suggest that efforts to improve prescribing for PWD should focus on non-hospital prescribing as a driver of problematic medications.

B100 Student Presentation, Encore Presentation The Relationship between Mediterranean Diet and Frailty in Older Adults

J. Dahringer,¹ D. Gross,² C. Sun,² H. B. Spangler,² D. H. Lynch,² J. A. Batsis.² *1. Virginia Commonwealth University School of Medicine, Richmond, VA; 2. The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Frailty is a geriatric syndrome of significant public health concern that causes vulnerability to physiologic stressors and an increased risk for mortality and hospitalizations. Dietary intake and quality are contributing factors to the development of frailty. The Mediterranean diet (MED) is one of the healthiest known eating patterns with promising health impacts for prevention. We evaluated the association between MED patterns and frailty status.

Methods: We conducted a cross-sectional study using National Health and Nutrition Examination Survey (NHANES) data from 2007-2017. We included 7,300 participants aged ≥ 60 years who completed the first day of a 24-hour diet recall and had full covariate data. We constructed an alternate MED (aMED) score based on the quantity of specific food group intake and categorized participants to low, moderate, and high aMED groups (scores of 0-2, 3-4, and 5-9, respectively). Participants were classified using our previously modified Fried frailty criteria (weakness, low physical activity, exhaustion, slow walking speed, and weight loss), and were considered robust if they did not meet any criteria, pre-frail (meeting one or two criteria), and frail (meeting 3+ criteria). Frailty and pre-frailty were collapsed as our outcome variable. Univariate and multivariate logistic regression analyses were used to evaluate the association of frailty with aMED adherence (predictor).

Results: Over half (54.5%) of participants were female and $n=1878$ (24%) had low, $n=4486$ (61%) moderate, and $n=936$ (14%) high aMED adherence. There were 3,834 (80%) non-Hispanic White, 1,509 (8.1%) non-Hispanic Black, 1,449 (6.9%) Hispanic, and 508 (5.1%) considered other (multi-racial). Of those with high aMED adherence, 16.3% were classified as robust, 13.1% as pre-frail, and 7.7% as frail. Fully adjusted models showed significantly reduced odds of developing frail/pre-frailty with moderate aMED (OR 0.82, 95%CI: 0.71,0.95) and high aMED groups (OR 0.72 [0.54,0.95]).

Conclusions: Higher aMED adherence is associated with decreased odds of frailty in older adults. These findings could be used clinically as patient education to promote healthy eating patterns. Future research should include interventional studies that can definitively determine the effect of MED on frailty and what food components provide the greatest benefit.

B101 Student Presentation Nationally Representative Estimates of Food Insecurity, Social Isolation, and Transportation Disadvantage Before and After Critical Illness Among Medicare Beneficiaries

T. Kaminski,¹ T. Murphy,² J. O'Leary,¹ L. Leo-Summers,¹ L. Ferrante.¹ *1. Yale School of Medicine, New Haven, CT; 2. The Pennsylvania State University, University Park, PA.*

Background: Health-Related Social Needs (HRSNs) are associated with poor health outcomes. In qualitative work, intensive care unit (ICU) survivors report financial strain; however, little is known about food insecurity, social isolation, and transportation disadvantage after critical illness. The objectives of this study were twofold: (1) to ascertain changes in three HRSNs—food insecurity, social isolation, and transportation disadvantage—among older adults in the year after

critical illness, compared to the year before, and (2) to evaluate pre-admission factors associated with each HRSN in the year after critical illness. **Methods:** We linked data from community-living participants in rounds 2-9 of the National Health and Aging Trends Study (NHATS) 2011 cohort to Medicare claims to identify ICU hospitalizations. The analytic sample included survivors who were not discharged to hospice, not admitted from a nursing home, and who completed interviews before and after hospitalization. We described the prevalence of each HRSN using previously described constructs based on survey responses. Factors associated with each HRSN in the year after critical illness were evaluated using population-weighted multivariable logistic regression. **Results:** Of the 450 participants, the mean age was 80.1 (SD 7.1), 50.9% were women, and 110 (24.7%) were non-Hispanic Black individuals. The prevalence of food insecurity increased from 4.9% to 7.8%, social isolation increased from 31.9% to 39.4%, and transportation disadvantage increased from 10.5% to 15.6% in the year after critical illness. Socioeconomic disadvantage (Medicaid) was associated with social isolation after critical illness (OR, 3.26; 95% CI, 1.38-7.70), as was pre-ICU social isolation. Mechanical ventilation in the ICU was associated with post-ICU transportation disadvantage (OR, 2.69; 95% CI, 1.03-7.01), as was pre-ICU transportation disadvantage. No factors were significantly associated with food insecurity. **Conclusions:** Food insecurity, transportation disadvantage, and social isolation increased among older adults in the year after critical illness. These findings emphasize the need for screening and interventions to address HRSNs among older survivors of critical illness.

B102 Student Presentation Effect of Visceral Adiposity and Adipokines to Incident Diabetes in Older Adults

M. Ushijima,¹ J. Metter,² N. Malandrino,³ E. Simonsick,⁴ C. Chia,⁴ J. Walston,³ L. Ferrucci,⁴ J. Egan,⁴ R. Kalyani.³ *1. John A. Burns School of Medicine, University of Hawai'i at Manoa, Honolulu, HI; 2. The University of Tennessee Health Science Center, Memphis, TN; 3. Johns Hopkins Medicine, Baltimore, MD; 4. National Institute on Aging Intramural Research Program, Baltimore, MD.*

Background: Older adults are more likely to develop diabetes than other age groups. Possible mechanisms include age-related changes in body fat distribution and hormone levels. Understanding the interplay between adipose tissue distribution and adipokine levels is increasingly important for early identification of individuals at risk for diabetes. In this study, we aimed to investigate the relationships of regional adiposity and adipokines with diabetes incidence in an older population.

Methods: 766 participants (373 men and 393 women, mean age of 73.9 years) from Baltimore Longitudinal Study of Aging (BLSA) were analyzed in a prospective study. All participants had abdominal CT scans measuring visceral (VAT) and subcutaneous adipose tissue (SAT) area, and were ascertained for diabetes outcomes during the study.

Results: At baseline, VAT area and VAT/SAT ratio were higher and SAT area lower in males (p-value <0.0001). Females had higher levels of serum leptin and adiponectin (p-value <0.0001). After adjusting for age, race, and years of education, VAT (males: HR=1.12, 95%CI=1.06-1.18; females: HR=1.12, 1.03-1.23) and VAT/SAT ratio (males: HR=4.76, 1.18-19.2; females: HR=13.2, 1.32-131) were significant predictors for incident diabetes for both sexes. In sensitivity analyses, only adiponectin but not leptin attenuated the relationship between VAT/SAT ratio and diabetes in men (HR=4.10, 0.97-17.4), with no attenuation in women.

Leptin was positively associated with incidence of diabetes for both men (HR=1.03; 95%CI=1.00-1.06) and women (HR=1.02; 95%CI=1.00-1.04). For both sexes, VAT and VAT/SAT ratio attenuated the relationship between leptin and adiponectin and incident diabetes (p>0.05).

Conclusion: VAT and VAT/SAT were independently related to the development of diabetes; adiponectin levels partially contributed to this relationship in older men. VAT and VAT/SAT ratio significantly contributed to the relationship of leptin with incident diabetes. Adipokines do not seem to mediate the relationship between visceral adiposity and diabetes incidence. These results highlight the importance of visceral adiposity in the development of diabetes in older adults.

B103

National Estimates of Social Disadvantage at State- and County-Level Among Community-Living Older Americans

Y. Wang, E. Zang, B. Vander Wyk, L. Leo-Summers, D. Rhoades, K. Davis-Plourde, T. Gill, R. Becher. *Yale University, New Haven, CT.*

Background: Disadvantaged older persons (≥ 65 years) are typically defined by individual-level characteristics rather than by social contextual factors. Our objective was to calculate national estimates of state- and county-level social disadvantage in community-living older Americans and to determine how these estimates differ according to traditional individual-level indicators of disadvantage.

Methods: Cross-sectional analyses of data from community-living older persons who participated in the National Health and Aging Trends Study (NHATS) in the 2011 and 2015 cohorts. 3 state- (Tobacco tax, Years before Earned Income Tax Credit, Medicaid generosity) and 7 county-level factors (Percent uninsured, Physician density, Particulate Matter 2.5, Percent unemployed, Median household income, Racial segregation, Income inequality) associated with negative health outcomes in adults were identified, operationalized, and linked to NHATS data; national prevalence rates were calculated. Single metrics of disadvantage for both the state- and county-levels were created by averaging z-scores of each factor. Social contextual disadvantage was defined by the lowest quintile at each geographic level.

Results: At the state-level, the national weighted prevalence of social disadvantage was 19.7% for the 2011 cohort and 12.1% for the 2015 cohort. At the county-level, the weighted prevalence of social disadvantage was 15.9% for the 2011 cohort and 20.6% for the 2015 cohort. For both geographic levels, when assessed by individual-level factors, the prevalence rates were highest for both cohorts among those with less than a high school education, with the lowest annual income, and with Medicaid eligibility. For race and ethnicity, prevalence differed by geographic level: the state-level disadvantage was highest among Non-Hispanic Blacks, while the county-level disadvantage was highest among Hispanics.

Conclusion: In this analysis of nationally representative data, up to 1 in 5 community-living older Americans suffer from social contextual disadvantage based on their state or county of residence. This social disadvantage is most pronounced in groups with more traditional individual-level disadvantages. These results indicate that social contextual disadvantages are highly prevalent in older Americans and may compound the disadvantages of individual-level indicators.

B104

Longitudinal Association of Contrast Sensitivity Impairment and Physical Functioning Among Older Adults

N. Kumar,¹ M. Kabeto,¹ A. Galecki,^{1,2} C. Karvonen-Gutierrez,⁴ J. Ehrlich.³ *1. Geriatric and Palliative Medicine, University of Michigan Michigan Medicine, Ann Arbor, MI; 2. Biostatistics, University of Michigan School of Public Health, Ann Arbor, MI; 3. Ophthalmology and Visual Science, University of Michigan Michigan Medicine, Ann Arbor, MI; 4. Epidemiology, University of Michigan School of Public Health, Ann Arbor, MI.*

Background: Contrast sensitivity or ability to see objects against the background is an important component of visual function. Vision plays a vital role in physical functioning among older adults. The effect of contrast sensitivity impairment (CSI) on physical functioning

among older adults is not well documented. The aim of this study was to examine the longitudinal association between CSI and physical functioning among elderly population.

Methods: The data for this study were obtained from the Aging, Demographics and Memory study which was a supplement to the Health and Retirement Study. At baseline, contrast sensitivity assessments were conducted using the Mars letter contrast sensitivity test. Physical functioning assessments were conducted every 2 years and were based on self-reported difficulty in physical functioning, activities of daily living (ADL) and instrumental activities of daily living (IADL). CSI was categorized as no CSI (log CS ≥ 1.52), moderate CSI (log CS: 1.04-1.52) or severe CSI (log CS <1.04). Responses to 12 physical functioning items were added to create sum score representing physical functioning limitations. Responses to ADL and IADL items were added to create a combined score representing activity limitations. Mixed effect linear and negative binomial models were employed to assess the longitudinal association of CSI with physical functioning and activity limitations.

Result: The study sample consisted of 270 individuals with mean age of 82.1 years (SD: 5.3) and 51.8% were female. At baseline, 64.4% had moderate and 9.6% had severe CSI. Participants with CSI had more physical functioning limitations (Moderate CSI: Estimate 95% CI: 0.58 (0.03, 1.12); Severe CSI: Estimate 95% CI: 1.20 (0.24, 2.15)), compared to those without CSI. Prevalence rate ratio (PRR) for activity limitations was higher for those with severe CSI (PRR (95%CI): 2.93 (1.55, 5.55) and those with moderate CSI (PRR (95%CI): 1.20 (1.16, 1.24)), compared to those without CSI.

Conclusion: Among older adults, contrast sensitivity impairment is associated with poor physical functioning in a dose-response pattern.

B105

Family caregiving for community-dwelling older adults living with dementia: a population-based descriptive study in Ontario, Canada

N. M. Stall,^{3,1} V. Giannakeas,² K. Kokorelias,³ A. Gruneir,⁴ L. Lix,⁵ K. Quinn,^{3,1} L. Wiesenfeld,^{3,1} C. Reppas-Rindlisbacher,^{2,1} M. Hillmer,⁶ C. Bell,^{3,1} P. A. Rochon.^{2,1} *1. University of Toronto Temerty Faculty of Medicine, Toronto, ON, Canada; 2. Women's Age Lab, Women's College Hospital, Toronto, ON, Canada; 3. Sinai Health, Toronto, ON, Canada; 4. Family Medicine, University of Alberta Faculty of Medicine & Dentistry, Edmonton, AB, Canada; 5. Community Health Sciences, University of Manitoba Max Rady College of Medicine, Winnipeg, MB, Canada; 6. Digital and Analytics Strategy, Government of Ontario Ministry of Health, Toronto, ON, Canada.*

Background: Most people living with dementia reside in the community, often with the support of unpaid family caregivers. We described and evaluated changes in family caregiving intensity and distress as well as the clinical complexity of care recipients living with dementia in Ontario, Canada.

Methods: A population-based retrospective cohort study of all home care clients in Ontario, Canada aged ≥ 66 years who were living with dementia and had at least one family caregiver. We used linked health administrative databases at ICES, and included individuals who were assessed with the RAI-HC or interRAI-HC tool between April 1, 2010 to June 30, 2021. We reported data and changes over time in caregiving intensity and distress, and on the sociodemographic, clinical and functional characteristics of care recipients with dementia.

Results: Among 172,202 older adults living with dementia (59.1% women; median age 84.0, interquartile range [IQR] = 79.0–88.3) receiving home care, 78,833 (45.8%) had distressed family caregivers. Nearly half (47%) of family caregivers were providing ≥ 20 hours of care per week, with 93.7% supporting instrumental activities of daily living (iADLs) and 48.2% supporting basic ADLs. Care recipients were dispensed a median of 5.0 medications (IQR = 3.0–8.0), and in the year prior to assessment, 63.6% had at least one emergency

department visit and 35.8% had at least one hospitalization. Between 2010–2021, the prevalence of caregiver distress nearly doubled from 31.0% to 61.2% while the percentage of care recipients with advanced dementia (Cognitive Performance Scale score ≥ 5) increased from 6.7% to 11.9% and ADL independence decreased from 55.2% to 30.1%.

Discussion: Family caregivers for community-dwelling older adults living with dementia experienced a near doubling of caregiver distress between 2010–2021 as they cared for increasingly complex care recipients.

B106 Resident Presentation, Encore Presentation
The Role of Rheumatoid Arthritis Flare in incident Alzheimer’s Disease and Related Dementias: a population-based cohort study

C. Kodishala,¹ R. George,¹ T. Gunderson,² E. Lovering,¹ R. Kumar,¹ C. S. Crowson,² J. M. Davis III,¹ E. Myasoedova.¹ *1. Rheumatology, Mayo Clinic Minnesota, Rochester, MN; 2. Mayo Clinic Minnesota, Rochester, MN.*

Background: Recent studies have reported an association between rheumatoid arthritis (RA) disease activity and risk of Alzheimer’s disease and related dementias (AD/ADRD), suggesting a pivotal role of inflammation as contributor. As it is unknown whether having more RA flares or spending more time in RA flare increases the risk of AD/ADRD incidence, we examined the role of RA flare and remission on the risk of AD/ADRD.

Methods: This population-based study was conducted on an inception cohort of RA patients aged ≥ 50 years, who were residents of a geographic area, and met 1987 American College of Rheumatology criteria for RA in 1980–2014 with follow up until 12/31/2019. Flare/remission status was obtained via medical record review, and visits not classified were counted as intermediate. In definition 1, flares were considered to start on the day of documentation and to resolve halfway to the next visit where the status was changed. In definition 2, ‘acute flares’ were defined to last ≤ 6 weeks and patients were considered to have intermediate activity until the next visit. Incident dementia was defined by presence of two ICD9/10 codes for AD/ADRD at least 30 days apart. Cox models were used to assess the association of RA flares with AD/ADRD.

Results: The study included 771 patients with RA (mean age 65.1 years). During median follow up of 7.7 years, 77 (10%) patients developed AD/ADRD. During a total of 11,085 medical visits (12 median visits per patient), patients were flaring at 3,608 (32.5%) visits and were in remission at 2,631 (23.6%) visits. Median total duration of time spent in RA flare was 46.4 weeks (IQR: 12.9–137.4). Using definition 1, we found no evidence of a higher risk of incident AD/ADRD when in a RA flare vs remission (HR 1.10; 95% CI: 0.63–1.89). Using definition 2, RA flare was associated with a 2-fold higher risk of AD/ADRD (HR 2.00; 95% CI: 0.93–4.27), statistically not significant. We observed a non-significant increased risk of incident AD/ADRD with time spent in RA flare and intermediate activity, compared to remission.

Conclusions: We found that RA flares are common and active flares may have a detrimental effect on cognitive status. Further research is needed to understand the underlying mechanisms of association between RA and AD/ADRD.

B107
Targeting a balance confidence intervention based on physical activity and physical function in a diverse cohort of older women
 C. Rovzar, S. Jhandi, S. Mackey, M. Stefanick. *Prevention Research Center, Stanford University School of Medicine, Stanford, CA.*

Introduction

Falls among older adults are the third leading cause of global disability and disproportionately affect more women than men. One intervention strategy to reduce falls is to promote balance confidence, a modifiable risk factor; though, it is unclear who should be the target

of remotely delivered interventions. Here, we examine the association between balance confidence and physical activity (PA) (overall PA, aerobic training, strength training, and walking) and physical function (PF) and the associated fall risk in each group in order to identify target subgroups.

Methods

Our study sample was obtained from the Women’s Health Initiative Strong and Healthy (WHISH) trial, a centrally delivered intervention providing national PA recommendations to a large, diverse cohort of older women across the US (n = 43,331). We collected self-reported PA and PF and administered the Activities-based Balance Confidence (ABC) scale, a 16-item questionnaire measuring balance confidence, to 14,819 participants by mail.

Results

A total of 7,235 responses were received with 5,351 respondents completing the full survey representing a 73.9% complete response rate. There was a significant difference between self-reported number of hours spent performing all PA, each PA sub-group, and sitting time, and ABC score (p < 0.0001), with higher levels of PA and lower sitting time corresponding to higher ABC scores. Mean ABC score significantly varied by PF groups with higher PF associated with higher scores. The mean ABC score of the high PF group was more than double that of the low PF group (87.0 vs 41.4). The difference in fall risk was significant for every type of PA (p < 0.0001) with more than double a risk for falls between the group with the lowest vs highest PA (32.4% vs 15.7%). Fall risk significantly varied by different PF groups with 8 times greater risk for falls among the lowest vs highest PF groups (44% vs 5%).

Conclusion

We identified those with low to moderate PA engagement and PF as the ideal targets for a balance confidence intervention due to the enhanced likelihood of achieving a minimal clinically important change in balance confidence scores as well as greater prevalence of fall risk. Those with the highest PA participation and PF will likely not achieve significant changes in scores due to ceiling effects and at baseline, have relatively low fall risk.

B108 Student Presentation
The Impact of Family Involvement on Physical and Occupational Therapy in Nursing Homes

S. H. Naqvi, A. Nunes. *Population Health Sciences, University of Massachusetts Chan Medical School, Worcester, MA.*

Background: This study examines the influence of family involvement on physical and occupation therapy administration in nursing homes, highlighting its potential to improve care quality for elderly residents.

Methods: In this observational study, we analyzed data from the Minimum Data Set (MDS) 3.0 for 2,429,557 residents aged 50+ in U.S. nursing homes. We assessed family involvement in care planning based on resident’s perceived importance of family involvement in care planning, ranging from “Not important at all” to “Very Important”. Exclusions were residents in hospice, comatose, or with less than 6 months prognosis. Outcome was defined as a sum of physical and occupational therapy minutes. Crude and multi-variable adjusted linear regression models were used to understand the impact of family involvement on therapy administration.

Results: Residents who reported ‘Very Important’ family involvement were, on average, older (mean age 79) and received more therapy minutes (Physical Therapy: 226 minutes, Occupational Therapy: 215 minutes) compared to other groups. Women and Non-Hispanic Whites were more likely to value family involvement highly. Those with lesser emphasis on family involvement generally had higher BMI and better continence, while mobility and cognitive impairments were similar across all groups. Our adjusted regression analysis showed a decrease in therapy minutes as preference for family involvement decreased, in comparison to ‘Very Important’ category

those who considered it ‘Not Important at All’ received 64 minutes less therapy (95% CI: -66 - -62). Subgroup analysis highlighted varied impacts of family involvement on therapy administration for different resident categories, e.g. hip fractures or cognitive impairments, illustrating the nuanced influence of family engagement in therapy allocation in nursing home settings.

Conclusions: The study highlights a link between family involvement in care planning and increased therapy administration in nursing homes. Residents with higher family engagement received more therapy minutes, with this pattern consistent across various demographic and health conditions. This finding underscores the critical importance of family involvement in enhancing therapy outcomes and highlights the need for incorporating family engagement strategies in nursing home care planning to ensure equitable and effective care for all residents.

B109

Healthy Aging in Urban Contexts: Exploring the Interplay of Intrinsic Capacity and Neighborhood Environment for Social Participation

M. C. Guarita,² M. J. Aliberti.^{1,2} *1. Department Internal Medicine, Division of Geriatrics, Universidade de Sao Paulo, Sao Paulo, Brazil; 2. Hospital Sirio-Libanês, Sao Paulo, Brazil.*

Introduction: The relationship between intrinsic capacity (IC) and environment in healthy aging is under-explored, yet it holds promise for influencing productive and leisure-time activities essential for well-being.

Objectives: To investigate the relationships between IC, neighborhood environment, and social participation in a nationally representative sample of Brazilians aged ≥50 years.

Methods: A cross-sectional analysis from the Brazilian Health and Retirement Study (ELSI-Brazil). A validated IC composite z-score was computed from five health domains (cognitive, psychological, sensory, locomotor, and vitality). Participants answered 15 questions on neighborhood environment, including safety, accessibility, mobility, and infrastructure. Our outcome was a validated measure of social participation assessed through the participant’s ability to execute 14 productive and leisure-time activities, such as going out, hanging out, traveling, volunteering, and organizing events (high social participation=upper quartile). Logistic regressions adjusted for sociodemographic, clinical, and lifestyle variables estimated the associations between IC and neighborhood environment with social participation, also testing interactions between these factors.

Results: A total of 5,418 participants (mean age=62±9 years; female=54%; black or mixed race/ethnicity=55%). Each standard deviation in the IC composite z-score was associated with 2-fold odds of having high social participation (aOR=2.04; 95% CI=1.63-2.55). We did not find an association between neighborhood environment and social participation. However, IC modified the relationship between neighborhood environment and social participation, with a P-value for interaction=0.005. Among people within the lowest tertile of IC, a better neighborhood environment increased the odds of having high social participation (OR=1.11; 95%CI=1.05-1.18). Nonetheless, among those with higher IC levels, no association was observed between neighborhood environment and social participation.

Conclusions: IC directly affects social participation, with neighborhood environment playing a significant role among urban residents with lower IC levels. Improving urban environments may be an effective public health strategy to promote healthy aging and well-being in those with lower IC.

B110

Older Adults with Heart Failure and COPD in the Last 2 Years of Life and their Family Caregivers: A Population-based Analysis

C. E. Stephens, Y. Kang, L. Reinke, E. Iacob, P. Meek. *College of Nursing, University of Utah Health, Salt Lake City, UT.*

Background: Morbidity and mortality among older adults with heart failure (HF) and chronic obstructive pulmonary disease (COPD) are high, unmet palliative care needs are common, and health disparities are greatest for those living in rural (vs urban) areas. Numerous studies underscore the important role families play at end-of-life (EOL), yet little is known about the association between availability of family and EOL care outcomes in this patient group. This study aimed to describe the size and composition of first-degree families (FDF) of older adults with HF and/or COPD who died between 1998-2016.

Methods: Using the Utah Population Caregiving Database, we linked decedents with a history of HF and/or COPD (n=64,223) to their FDF (n=220,775; spouses=13.1%; children=56.9%; siblings= 29.6%). Descriptive statistics, chi-square tests, and t-tests were used to describe the cohort and their FDF members, and compare sociodemographic and EOL characteristics of those with (n=54,151; 84.3%) and without FDF (n=10,072; 15.7%).

Results: Majority of decedents were female (50.4%), white/non-Hispanic (94.6%), widowed (45.0%), with FDF (84.3%), and died in an urban area (73.3%). Mean age at death was 82.1(SD 7.98). Nearly 2/3 had HF only, 15.5% had COPD only, and 19.4% had both COPD and HF. Compared to decedents with FDF, those without were more likely to be female (60.2% vs 48.6%), non-white/Hispanic (11.1% vs 4.4%), divorced/separated/widowed (80.3% vs 49.6%), less educated (<12th grade; 41.8% vs 32.9%), dual eligible (18.9% vs 8.0%), and die in a rural/frontier area (29.4% vs. 26.1%). Decedents without FDF were more likely to die from COPD (11.3% vs 8.6%) and dementia (4.5% vs. 3.7%), and less likely to have an inpatient hospitalization in last month of life (50.5% vs. 52.2), compared to decedents with FDF. Those with FDF were more likely to die at home (32.4% vs 25.0%) or hospital (37.0% vs 34.2%), and less likely to die in long-term care (26.0 vs. 35.9%), compared to those without FDF.

Conclusions: Findings highlight health disparities between older adults with HF/COPD who do and do not have family – factors that that may influence EOL care equity and quality. Understanding the role of family availability and characteristics on EOL care outcomes in this population is an important next step to informing care interventions and health policies to reduce EOL health disparities.

B111

A Look at “What Matters” to Older Adults Who Have Experienced Homelessness: A Qualitative Descriptive Study

K. Breder,^{1,4} C. Jacobs,² V. Yu.^{3,4} *1. Nursing, New York University Rory Meyers College of Nursing, New York, NY; 2. Albany Medical College, Albany, NY; 3. New York University Grossman School of Medicine, New York, NY; 4. Center for Urban Community Services, New York, NY.*

Background: The 4 Ms Model is used to describe the essential components of age-friendly care. This model has not been used to frame what matters to persons with lived experiences with homelessness. The purpose of this paper is to explore what matters to formerly homeless older adults and to use themes gathered from these assessments to guide future care with this population.

Methods: Semi-structured in-person interviews were conducted with six racially and ethnically diverse formerly homeless adults aged 65 and older who reside in state-subsidized supportive housing sites in New York City. All interviews were conducted in-person on-site at participants’ supportive housing locations. The interview guide was derived from the 4 Ms Model to explore what matters, mentation, medication, and mobility. All interviews were recorded and transcribed verbatim. Transcripts were analyzed using qualitative content analysis.

Results: Deductive coding revealed that participants highlighted all dimensions of the 4 Ms Model, emphasizing that medication, mobility, and mentation matter to them at this stage of life. Inductive coding revealed participants also value financial security and resiliency strategies that they adopted during periods of homelessness to overcome difficult life circumstances. Resiliency strategies that matter include humor, trust, and a sense of wonder.

Conclusion: Homelessness seems to leave an indelible imprint on persons who have experienced it, characterizing their value systems in older adulthood, even after homelessness has ended. Community agencies that serve this population should assess and optimize resiliency strategies that may be critical to healthy aging and remaining housed.

B112 Resident Presentation, Encore Presentation
Is it ethically appropriate to persuade older women to stop getting mammograms?

V. V. Altiery De Jesus, S. Hannum, M. Beach, N. Schoenborn.
Johns Hopkins University, Baltimore, MD.

Background: Many older women are screened for breast cancer beyond guideline-recommended age and life expectancy thresholds. Even when provided information about the harms of over-screening, many older women remain enthusiastic about screening. It is not clear whether it is ethically appropriate for **doctors** or public health officials to persuade (i.e. to try to change one's beliefs or actions) older women to stop mammograms when harms outweigh the benefits. We aimed to explore older women's perspectives on this topic.

Methods: We conducted an online survey of women ages 65+, recruited from a nationally representative panel. We assessed participants' opinions on whether it was ethically appropriate for the doctor or public health officials to persuade a woman to get a mammogram when she did not want one and, conversely, whether it was appropriate to persuade a woman to not get a mammogram when she did want one. All questions used 5-point Likert scales measuring agreement. We used logistic regression to examine associations between extent of agreement in each scenario and participant characteristics.

Results: 683 women without breast cancer history participated. Mean age was 72.7 years; 17.1% were non-White. 64.0% agreed that it was appropriate for doctors to persuade patients to get mammograms but only 25.7% agreed that it was appropriate for doctors to persuade patients to not get mammograms. **Similarly**, 61% supported public health officials persuading women to get mammograms but only 36% supported persuasion to stop mammograms. Responses to each question did not vary by age, race/ethnicity, self-rated health. Family history of breast cancer, higher trust in doctors, being up-to-date with screening (had a mammogram in previous 2 years), and higher cancer worry were associated with higher odds of agreeing that it was appropriate for doctors or public health officials to persuade patients to get mammograms.

Conclusions: This is the first national study to assess patient perspectives on the ethical appropriateness of using persuasion in decision-making about mammography screening. Only one-quarter of participants thought it was acceptable for doctors and public health officials to persuade women not to have mammograms. More work is needed to understand the ethical and clinical challenges with implementing services that patients perceive to have value.

B113 Student Presentation
Factors associated with perceived benefit of Medicare Advantage care management provided to cognitively vulnerable older adults
 J. Levin,¹ R. Fortinsky.^{1,2} *1. University of Connecticut School of Medicine, Farmington, CT; 2. Center on Aging, UConn Health, Farmington, CT.*

Background: Over 50% of Medicare-eligible individuals enroll in Medicare Advantage (MA) plans. Among programs available to MA members is care management (CM), designed to enhance health and improve quality of life. Little is known about MA CM provided to

older adults with cognitive vulnerability due to dementia, depression, and/or delirium. In this study, we developed measures of MA CM and determined how cognitively vulnerable older adults' perceived benefit of CM was associated with CM practices and sociodemographic and health-related characteristics.

Methods: This study is part of a randomized clinical trial targeting cognitively vulnerable older adults in which in-home CM is compared to telephone-based CM (usual care) provided by a MA plan. For study participants randomized to receive usual care, we reviewed all clinical narratives written by CM staff from March 2017-September 2022. We developed CM measures including percentage of successful CM calls and whether behavioral health referrals were made. One year after randomization, participants were interviewed about perceived CM benefits, measured as how much CM helped them understand their cognitive and mood symptoms and improve their quality of life. Independent variables included CM measures, age, sex, race, education level, and type of cognitive vulnerability.

Results: Of the 162 participants, 56.8% were female, mean age was 75.7 (SD=5.7), and 92.4% were non-Hispanic white individuals. Study participants received a mean of 8.4 call attempts (SD=4.7), with a mean of 61.1% (SD=30.3) successful. 13% of participants received behavioral health referrals, 35.4% reported that CM helped understand their symptoms, and 34.8% reported that CM helped improve their quality of life. As a result of CM, participants with < college education were 2.6 times (95% CI=1.0-6.3) more likely to have improved understanding of their symptoms, and 3.7 times (95% CI=1.5-9.3) more likely to have an improved quality of life, than those with ≥ college degree. No other independent variables were associated with perceived CM benefit.

Conclusions: While no associations were found between CM measures and perceived benefit of CM, participants with less education reported greater perceived benefit than those with higher education. More research is needed to better understand MA CM practices for cognitively vulnerable older adults

B114
Patient and clinician perspectives in a human-centered design approach to refine Photo+Care, a patient-clinician technology-based communication intervention for multiethnic older adults with multimorbidity

I. Hoang, T. Chinn, H. Pan, E. Chu, J. Jih. *UCSF, SF, CA.*

Background: Human centered design (HCD) is a process of integrating people's perspectives and feedback into intervention design. Photo+Care (P+C) is a technology-based patient-clinician communication intervention for older adult patients to take photos about medication use, food experience, and home environment to share with their clinicians. P+C's purpose is to use patient captured photos of lived experiences to inform patient-centered discussions between patients and clinicians. We utilized HCD to iteratively refine P+C to include input from patients and clinicians.

Methods: As part of a broader HCD process of refining P+C, 2 team members led older adult patients, nurse practitioners (NP) and physicians from 3 primary care clinics in HCD audio-recorded sessions for feedback on intervention components, processes and perceived barriers and facilitators to P+C. Session transcripts were coded using thematic analysis by 2 separate team members and P+C intervention was iteratively refined before subsequent sessions.

Results: We completed 11 individual (6 patients all age 70+, average of 5 chronic conditions and 10 daily medications; 5 physicians) and 1 group (2 NPs) HCD sessions. Patients liked how P+C could help share actionable information about their lived experiences such as medication practices to clinicians and identified training needs such as smartphone photo-taking guidance to take useful photos for clinicians (Table 1). Clinicians also voiced the potential benefits of P+C in the delivery of geriatric primary care including enhanced insight to the context of patients' lives, specifically medication

practices and dietary habits, to develop personalized care plans. They also advised on workflow impacts and how to mitigate it such as training patients on uploading photos in the secure patient portal in advance of an appointment (Table 1).

Conclusions: Through HCD, patient and clinician voices were used to refine P+C to meet the needs of patients and clinicians and address real-world challenges to deliver P+C to enhance patient-centered geriatric primary care.

Table 1: Representative Quotes

Topic	Quote(s)
Patient training input from patient participants	Quote A: "...when you put some photos together in a certain area, somebody could, you know, advise you or give you some suggestions on exposure. Or how to frame it, or how to use your camera or your phone. At the right angle, or how close or how far back you should be, and lighting." Quote B: "But the process of uploading that to MyChart [patient portal], we would need some instruction, certainly I would."
Proposed intervention refinements from clinician participants	Quote A: "They want to tell us about what's going on, they want to tell us about their trip. They want to tell us about their niece's wedding and I think that's great, that's a great honor! And I think this is going to be a similar situation, potentially, where it's another portal to communicate in a way with words and pictures. So I think it's going to be hard to limit it maybe, potentially. I think the patients are coming at this with this kind of high hopes here but at the end of the day clearly we need to have some sort of guardrails [on how many photos are shared during a visit]. So you know, how many pictures?... I would say probably like 5 to 10 per visit." Quote B: "I think I ideally prefer they send it through the MyChart [patient portal], so that I can be the one that scrolls through it, and then I don't have to like learn how to use their phone. And then it would be stored in EPIC for them in the future. So like, if I need to ever reference something, or, you know, take a second look."

B115 Resident Presentation

Physician perspectives on statin continuation and discontinuation in older adults in primary cardiovascular prevention: a qualitative study

A. Marti,² S. Zbinden,² L. Brunner,³ A. Spinewine,¹ N. Rodondi,^{2,3} C. Aubert.^{2,3} 1. *Université catholique de Louvain, Brussels and Centre Hospitalier Universitaire UCL Namur, Louvain, Belgium;* 2. *General Internal Medicine, Inselspital Universitätsspital Bern, Bern, Switzerland;* 3. *Institute of Primary Health Care, Universität Bern, Bern, Switzerland.*

Background

There is limited evidence on statin use in primary cardiovascular prevention after the age of 70, so that (dis)continuation should be discussed. We assessed physician perspectives on (dis)continuation of statins in this context.

Methods

We conducted four focus groups (FGs) with 18 Swiss physicians (neurologists, cardiologists, primary care providers (PCPs), hospital internist). An inductive and deductive thematic analysis was used for coding.

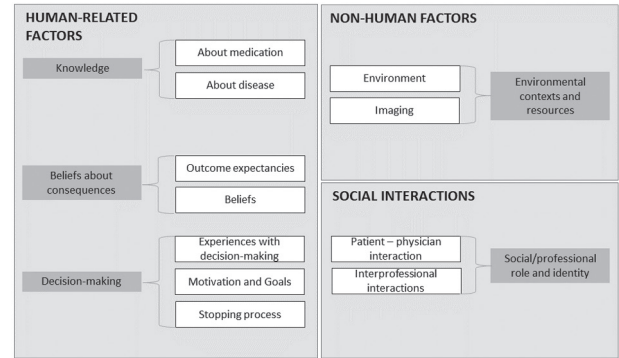
Results

We identified three main subject areas, each including several themes and subthemes as shown in the figure.

Physicians reported as challenging to define if a patient is in primary or secondary prevention and that lack of evidence makes decision for (dis)continuation difficult. Physicians mentioned (dis)continuation should be a shared-decision between the patient and the physician. PCP office was identified as the ideal setting to discuss discontinuation as all necessary information is available and PCPs have a longer relationship with the patients facilitating a shared decision. Discontinuation of a chronic medication was perceived as difficult. Furthermore, PCPs noticed a possible negative impact on patient-physician relation as some patients felt worthless, given up or undertreated.

Conclusion

This study highlights the challenges of statin (dis)continuation in older patients and the crucial role of PCPs in situations with unclear evidence where shared decision-making between physicians and patients is important. More evidence forming the background for a decision aid would be helpful.



B116 Student Presentation

Re-evaluating Person-Centeredness in Relation to the Workforce and Care for Older Adults

A. Saavedra,³ P. Sloane,¹ S. Zimmerman,¹ S. Fazio.² 1. *The University of North Carolina at Chapel Hill, Chapel Hill, NC;* 2. *Alzheimer's Association, Chicago, IL;* 3. *Texas College of Osteopathic Medicine, Fort Worth, TX.*

Background: The term "person-centeredness" has been widely referenced and identified as a gold standard practice, especially in the care for older adults. However, many inconsistencies exist regarding its definition and implementation. With the recognition of caregivers being paramount to the improvement of healthcare quality, a clearer understanding of the term and its application to the healthcare workforce is needed. To address this issue, we aimed to identify key themes regarding the role of person-centeredness as it relates the workforce and care for older adults.

Methods: Six think-tank meetings (two in-person; four virtual) were convened. The 38 participants included nurses, direct care workers, and dining staff from long-term care (LTC) settings; leaders of LTC organizations; and academic researchers in aging and LTC policy. Qualitative methods were used to analyze notes and transcripts.

Results: Four overarching themes were identified: (1) Staff attitudes and practices toward person-centeredness tend to vary by care setting, due to differences in each setting's inherent characteristics and goals of care. (2) Person-centeredness at the care level is conveyed through concrete practices of individual care providers; barriers involve both interpersonal competencies and organizational structures. (3) Supportive leadership is critical for staff to be empowered to approach care in a person-centered manner. (4) The lack of operationalized person-centeredness definitions has created inconsistencies in implementation.

Conclusion: The definition of person-centeredness has grown from its original interpretation. These think-tanks centered on the workforce and care for older adults identified four themes that both align with and expand the current literature on person-centeredness and its implementation.

B117 Resident Presentation

Multifactorial Barriers and Facilitators for Sleep Health in Caregivers of Family Members with Dementia

J. Sharninghausen,¹ E. Mroz,¹ Y. Pan,¹ P. Cantu,² S. Milani,³ B. Miner.¹ 1. *Geriatrics, Yale University Department of Internal Medicine, New Haven, CT;* 2. *Internal Medicine - Geriatrics, The University of Texas Medical Branch Health, Galveston, TX;* 3. *Epidemiology, The University of Texas Medical Branch Health, Galveston, TX.*

Background: Caregivers of family members with dementia experience many sleep challenges. Our objective was to characterize caregivers' sleep experience through the lens of the established "3P" model of predisposing, precipitating, and perpetuating factors that give rise to health challenges.

Methods: We conducted a qualitative study through semi-structured interviews with current and former caregivers of family members with dementia. We used thematic analysis with the constant comparative method to generate properties of factors that influence caregiver sleep.

Results: Of the 30 participants (3% Asian, 23% Black, 17% Hispanic, 57% non-Hispanic White), 57% were female and the average age was 63 (range: 45 - 92). 46% were a spouse or partner, 43% were adult children and 63% were current caregivers. Predisposing factors included pre-existing qualities of the caregiver, the dyad, or the care context that shaped sleep health as the caregiver transitioned into their role. For example, social isolation and financial stress hindered sleep through multiple mechanisms. Precipitating factors involved responses to emerging role strains, such as the caregivers' nighttime rumination and hypervigilance, that could precipitate patterns of poor sleep. Strategies such as institutionalization of the person with dementia had variable effects on caregivers' sleep, while home hospice provided practical resources and support which helped caregivers' peace of mind. Finally, perpetuating factors, including reactive self-care or sleep habits and access to systemic solutions, dictated exacerbation or alleviation of established patterns of poor sleep. While strong daily routines facilitated sleep, participants described barriers to accessing formal primary and mental health care, including sleep-related care.

Conclusions: We identified multiple factors within the 3P model which supports the concept of multifactorial interventions to address caregiver sleep disturbances. Understanding how barriers to sleep accumulate across the caregiving role, and how protective factors can mitigate this accumulation, will support development of resources and policies to improve sleep health in caregivers of family members with dementia.

B118 Student Presentation

Conflicts of interest among geriatric journal editors

A. Murayama,¹ Y. Yamada,¹ E. Tarras,³ I. Kohli,¹ D. Nguyen,² D. Marshall.¹ 1. Icahn School of Medicine at Mount Sinai, New York, NY; 2. University of Toronto, Toronto, ON, Canada; 3. Yale University, New Haven, CT.

Background: Physician-industry financial relationships are common and introduce conflicts of interest (COIs), and may influence decision-making among influential journal editors. Little is known about financial COIs among editors of geriatric journals in the US.

Methods: Utilizing Open Payments data, this study evaluated general and research payments from industry to editors of four high-impact US-based geriatric journals: *Journal of the American Medical Directors Association*, *American Journal of Geriatric Psychiatry*, *Journal of the American Geriatrics Society*, and *Journals of Gerontology: Series A*. We calculated the fraction of editors receiving payments and the amounts of payments. An examination was conducted of the journal websites and their affiliated societies to ascertain the public availability of COI policies for editors, and to verify whether COI statements were publicly disclosed on these websites or within the journals themselves.

Results: Of 168 eligible editors, 98 (58.3%) received any payment from industry between 2014-2022. The total payment amounts were \$4.3 M general and \$15.5 M research payments. More than half of editors from three of the journals received payments (Fig. 1). The fraction of editors with payments was highest for chief editors (66.7%), followed by associate editors (59.5%) and other editors (57.3%). The median payments (IQR) during the period per editor were \$37,292 (\$584-\$56,807) for chief editors, \$17,664 (\$2,035-\$141,269) for associate editors, and \$2,061 (\$128-\$30,741) for other editors. Two journals had publicly available COI policies, and three publicly disclosed their editors' COI statements.

Conclusions: More than half of the editors of high-impact US geriatric journals received payments from industry between 2014-2022.

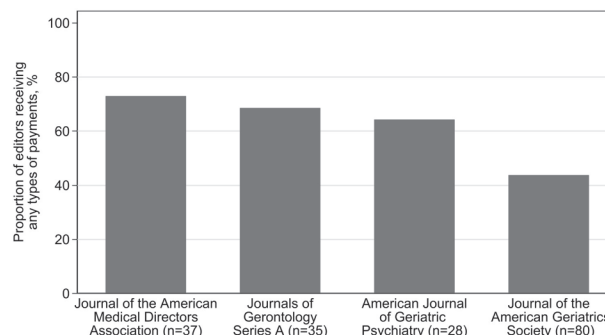


Fig 1. Fraction of editors with payments

B119

Patient-Informed Framework to Address Financial Toxicity in Multimorbidity

C. McDermott,¹ M. Lourie,¹ H. Hazlewood,² C. E. Sloan.¹

1. Medicine, Duke University, Durham, NC; 2. Population Health Sciences, Duke University, Durham, NC.

Background: "Financial toxicity" describes the financial stress of unaffordable medical costs and is associated with worse disease control and quality of life. No studies have described financial toxicity among patients with multimorbidity (2+ chronic conditions), a third of whom cannot afford at least some of their care. We queried patients with multimorbidity to gain insight into their experiences.

Methods: We audio-recorded semi-structured interviews with 8 patients who had ≥2 of 5 pre-defined conditions (heart failure, coronary artery disease, diabetes, chronic obstructive pulmonary disease, hypertension), took ≥5 medications, and received primary care at Duke. We asked patients to describe material and psychosocial experiences with financial toxicity. We analyzed transcripts using rapid qualitative analysis.

Results: Patients were aged 47-67 years. Most were male (6/8) and enrolled in Medicaid (6/8) or Medicare (3/8). On average they had 3 conditions and took 8 medications. Patients described the dynamics between living with multimorbidity ("They're always starting and stopping some new medicine"), medical costs ("Surprise billing is what really throws me under the bus because I live on a fixed income"), financial reserve ("I couldn't afford that if it wasn't for Medicaid"), and financial prioritization ("I've gotta eat first, so medicine comes second"). They described their coping behaviors ("I didn't take my medicine like I was supposed to because I couldn't afford it") and how they prioritized their diseases ("I'm a diabetic, so if I couldn't afford to get my medicine I might die"). Patients noted that high ancillary expenses ("I just want to take oxygen, but I'm not able to afford the oxygen tank"), transportation costs ("Make sure I got enough gas to get back and forth to the doctors"), and limited options ("Having to go to the emergency room... you could do other things if you had choices") contributed to financial toxicity.

Conclusions: Patients with multimorbidity described that their financial toxicity stemmed from high costs and insufficient financial reserve, and impinged on their medical care and outcomes. As multimorbidity incidence and healthcare costs rise in an aging population, clinical tools are needed to detect financial toxicity and mitigate its impact on clinical outcomes and quality of life.

B120

What matters most to older adults during the transition from hospital to skilled nursing facility?

J. D. Harrison,¹ A. Lyndon,³ R. Sudore,² A. D. Auerbach,¹ T. Bongiovanni,⁴ M. Yukawa,² M. C. Fang.¹ 1. University of California San Francisco Division of Hospital Medicine, San Francisco, CA; 2. University of California San Francisco Division of Geriatrics, San Francisco, CA; 3. New York University Rory Meyers College of Nursing, New York, NY; 4. Surgery, University of California San Francisco, San Francisco, CA.

Background

It is unclear what matters most to older adults during the transition from hospital to skilled nursing facility (SNF). The aims of this study are to explore what matters most to older adults during their hospital to SNF care transition.

Methods

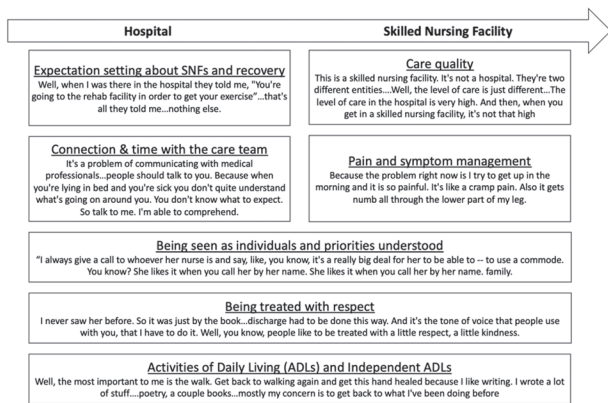
We conducted a grounded theory qualitative study on the Medicine Service at an academic medical center and a short-term rehabilitation SNF. Adults were eligible if they were ≥65 years old and English speaking without dementia. Caregivers of eligible adults were also eligible. We conducted in-depth interviews and ethnographic observations of hospital and SNF care activities (e.g., rounds, family meetings, discharge planning, SNF admission). Interview and observation data were analyzed using constant comparative methods to create codes that were organized into conceptual categories.

Results

We completed 20 interviews (16 patients, 4 caregivers) and 30 hours of observations. Seven conceptual categories describing what matters most were identified – some were consistent across the hospital to SNF setting while others were exclusive to the hospital or SNF (see Figure 1).

Conclusion

This study has identified patient-reported priorities during the transition from hospital to SNF. Consistent approaches to capturing and addressing what matters most is required to ensure care aligns with older adults’ needs and priorities.



B121

Perceptions of Emergency Department-Triggered, Advance Care Planning Intervention: Qualitative Study

Y. Shiozawa,¹ S. Morton,¹ S. Malik,² K. Ouchi.^{1,3} 1. Emergency Medicine, Brigham and Women’s Hospital, Boston, MA; 2. The City College of New York CUNY School of Medicine, New York, NY; 3. Emergency Medicine, Harvard Medical School, Boston, MA.

Background:

Emergency department (ED) visits are prime settings to initiate advance care planning (ACP) conversations for seriously ill older adults, yet ED clinicians lack practical methods to do this.^{1,2} ED GOAL is a behavioral intervention designed to engage clinically stable yet seriously ill older adults in the ED to address ACP with their outpatient

clinicians.³ The study aim is to identify patient-perceived benefits and obstacles of ACP conversations after ED GOAL by using semi-structured interviews.

Methods:

A randomized controlled trial (N=142) assessing the effect of ED GOAL was conducted from Feb. 2022 to Nov. 2023 at three urban academic medical centers. Subjects in the intervention arm received semi-structured interviews after follow-up.

Results:

35 subjects were interviewed from July 2022 to Oct. 2023 (40% female, mean age 67 years, 14% non-Hispanic Black/African American, 63% with metastatic cancer). We explored four themes: thoughts about ACP, intervention effects on conversations with doctors, intervention effects on conversations with loved ones, and thoughts about recommending ACP to others. 40% of the patients found that ED GOAL raised awareness about ACP documents/conversations. ED GOAL encouraged 46% of them to document/have conversations with their doctors and/or loved ones. ACP alleviated the burden from their loved ones. 94% recommended ACP conversations to others.

Conclusions:

ED GOAL largely benefitted seriously ill older adults in initiating ACP conversations with their doctors and/or loved ones. Although ED GOAL may not change decisions for end-of-life-care, it may prepare patients for crises and reinforce their values/wishes, suggesting novel methods for ED clinicians to address ACP with patients.

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B122

Describing factors contributing to older adults’ experiences during the transition from the hospital to skilled nursing facility.

J. D. Harrison,¹ M. C. Fang,¹ R. Sudore,¹ A. D. Auerbach,¹ T. Bongiovanni,¹ A. Lyndon.² 1. University of California San Francisco, San Francisco, CA; 2. New York University, New York, NY.

Background

To describe factors contributing to patient experiences during the transition from the hospital to SNF.

Methods

We conducted a grounded theory study at an academic medical center and short-term rehabilitation SNF. Patients were eligible if they were ≥65 years old, English speaking, without dementia, admitted to Medicine. Patient caregivers, and clinicians were also eligible. We conducted interviews and observations (e.g., rounds, family meetings, discharge planning, SNF admission). We analyzed data using dimensional analysis, identifying prominent dimensions that consider the context, conditions and processes that create outcomes.

Results

We completed 41 interviews (16 patients, 4 caregiver, 21 clinicians) and 30 hours of observations. Patient experienced four outcomes: 1) feeling unprepared about the SNF admission; 2) a lack of control; 3) a desire for connections with the hospital team; 4) a resignation to their current situation and a fragmented healthcare system.

Dimensions causing these outcomes were a result of patient and care team factors. Patient behaviors (condition) such as taking a passive healthcare role impacted their recall, understanding, and agency (process). Patients often focused on information provided by

physicians rather than other care team members (process). Patients' emotional vulnerability (condition) exacerbated their desire to be seen and heard (process). Clinicians' perceptions of their role (conditions) led to the delegation of tasks (process) that resulted in tasks being overlooked (process). Clinical practice and training (conditions) focus on checklists and standardized processes (processes), but these often omitted counseling patients about their SNF recovery. Pressure to maintain throughput (condition) impacted the teams ability to spend time with patients (processes).

Conclusion

The causes of patients' hospital to SNF transition experiences are multifactorial. Improving this transition will require targeting patient and care team factors to have maximal effect.

B123 Student Presentation

Caregiver Stress amongst Immigrant Tamil Caregivers of Patients with Dementia (PWD) in Canada

T. Sathiyamoorthy,² A. Vickneaswaran,¹ J. Consalas,¹ T. Yogaparan.^{1,2} *1. medicine, Baycrest Health Sciences, Toronto, ON, Canada; 2. University of Toronto, Toronto, ON, Canada.*

Background: Dementia care is complicated by the cultural diversity of patients and their informal caregivers. According to 2021 Statistics Canada report, over 152,850 Tamil immigrants call Canada their home. In this community, family caregiving for PWD is often preferred despite high caregiver stress. There is sparse literature on caregiver stress in Tamil diaspora. The purpose of this study was to: a) understand the impacts of caregiving on Tamil family caregivers of PWD b) identify the factors influencing caregiver stress and c) assess the barriers and facilitators to accessing support services. Findings will inform us to advocate for creation of culturally sensitive dementia care models.

Methods: 15 caregivers were recruited using purposive sampling in the Greater Toronto Area, Ontario, Canada. Virtual, semi-structured individual interviews were conducted for all caregivers until saturation was reached, from May –Aug 2022. Interviews were transcribed, translated as needed, coded using an inductive deductive approach and thematically analyzed. We also quantified caregiver stress using the Kingston Caregiver Stress Scale (KCSS). We used descriptive statistics for KCSS scores and demographic information.

Results: 2/3rd of the caregivers were females, 50% of them daughters of PWD. Caregivers' ages ranged from 31 to 80 years; most common age group was 41 to 50 years. Five primary themes were identified: 1) Motivations for informal caregiving, 2) Division of caregiving duties, 3) Daily caregiving stressors 4) Impacts on caregiver's lifestyle and 5) Barriers and facilitators to accessing timely support services. Mean KCSS score was 25.4, indicating severe caregiver stress.

Conclusion. This study identified significant caregiver stress amongst the family caregivers impacting the social, psychological, and physical well-being of caregivers of PWD. Despite this, timely support is not accessed due to systemic, cultural, societal, and language barriers. We also identified community relations, caregiver education, and culturally tailored care as positive influences on these caregivers. It emphasize the need for in-depth knowledge that can contribute to creation of culturally sensitive dementia care models for Tamil immigrant communities, which will have local, national and international implications.

B124

Methamphetamine use among older adults living with HIV

B. H. Han, W. E. Kepner, A. Nguyen, M. Karris. *University of California San Diego, La Jolla, CA.*

Background: Methamphetamine use is increasing, resulting in a surge in methamphetamine-related overdose deaths in the U.S. Methamphetamine can also complicate the management of chronic diseases, including HIV, and is associated with a range of

cardiovascular and other health complications. Therefore, for older adults living with HIV who use methamphetamine, its use may worsen health outcomes. The objective of this study is to examine the contextual motivations and perceived risks of methamphetamine use in the setting of aging and chronic disease, along with knowledge of harm reduction approaches among older adults living with HIV.

Methods: We conducted 1-to-1, semi-structured qualitative interviews with 20 adults aged ≥ 50 and living with HIV in San Diego, California, who used methamphetamine in the past 30 days. Interviews were audio-recorded, transcribed, systematically coded, and analyzed to identify key themes regarding reasons for methamphetamine use in older age, perceived benefits and harms, impact on chronic disease management including HIV, knowledge and barriers of harm reduction interventions, and experiences cutting down on use.

Results: Participants had a mean age of 59.9 years (range 51-69), 15 (75%) identified as male, 6 (30%) as Hispanic/Latino, 13 (65%) as lesbian, gay, or bisexual, 14 (70%) had ≥ 2 chronic medical diseases other than HIV, and 4 (20%) with opioid use disorder. Regarding methamphetamine use, 11 (55%) used every day, with the most common route of use being smoking 14 (70%). Three major themes emerged: (1) Motivations for methamphetamine use shifted with age, from using for recreational purposes to mainly using to help perform everyday activities, treat chronic symptoms, or cope with increasing isolation; (2) Increasingly experiencing negative physical consequences related to use with less perceived benefit, but difficulty cutting down or stopping; (3) Lack of knowledge regarding risk for overdose and little familiarity of harm reduction interventions.

Conclusions: In this qualitative analysis, older adults living with HIV who use methamphetamine reported changing motivations for use with age while not accessing harm reduction interventions to reduce overdose risk. More research is needed to understand methamphetamine use in the context of aging-related challenges and effective multidisciplinary harm reduction interventions for older adults living with and without HIV.

B125

Self-Reported Supplemental Oxygen Functions as a Useful Proxy for Claims-Based Oxygen Use for Clinical Research

A. Suen, A. Kotwal. *UCSF, San Francisco, CA.*

Supplemental oxygen is a common treatment for older adults with advanced chronic obstructive pulmonary disease (COPD). Qualitatively, older adults experience significant burdens with using supplemental oxygen, including fear of falls, reduced mobility, and anxiety around operating the oxygen equipment. To study this quantitatively, our objective was to first determine if self-reported oxygen use is a useful proxy for claims-based oxygen use in future research studies.

We used the 2018 Health and Retirement Study (HRS) linked to Medicare Durable Medical Equipment (DME) claims. We included persons >65 years who met criteria for COPD based on self-report and fee-for-service Medicare claims in the past 2 years (N=456). In people who self-reported COPD, a nested question "Are you receiving oxygen for your lung condition?" identified self-reported oxygen use. We used 17 codes for oxygen supplies in the DME data to identify claims-based oxygen use. We determined the national prevalence of supplemental oxygen use with HRS-provided complex survey weights. We calculated the sensitivity, specificity, and Cohen's kappa for self-reported oxygen use with DME claims as the reference.

Of the 456 participants (representing ~ 2.5 million older adults) who self-reported COPD, 21% (n=102) self-reported oxygen use and 18% (n=88) had Medicare claims for supplemental oxygen (representing $\sim 525,000$ older adults). In those who self-reported oxygen use, the average age was 79 years (SD ± 6.9) and 57% were female, with 10% Black, and 1% Latinx. Among the 88 participants with DME claims, nearly all (n=77) self-reported supplemental oxygen use (sensitivity 89%). Of the 368 people without a DME claim for oxygen, 344 did

not report oxygen use (specificity 93%). The positive predictive value was 69% and negative predictive value was 97%. The kappa coefficient was 0.77, corresponding to moderate concordance between self-reported and Medicare claims for supplemental oxygen.

We found nearly one in five older adults with COPD use supplemental oxygen, which was consistent across self-report and Medicare claims, and a prior prevalence estimate. While there is no true “gold standard” measurement for oxygen use, study results indicate reasonable concordance, sensitivity, and specificity between self-reported and Medicare claims for supplemental oxygen. Given the high degree of overlap, it is reasonable for researchers to use self-reported oxygen use in future studies.

B126

Voices from the front lines of an Advance Care Planning nursing home pragmatic trial: A qualitative study

K. Unroe,^{2,1} H. Lum,³ L. Mack,¹ S. Hickman.^{4,1} 1. *Regenstrief Institute Inc, Indianapolis, IN*; 2. *General Internal Medicine, Indiana University School of Medicine, Indianapolis, IN*; 3. *Division of Geriatric Medicine, University of Colorado Anschutz Medical Campus School of Medicine, Aurora, CO*; 4. *Indiana University School of Nursing, Indianapolis, IN*.

Background: Advance care planning (ACP) is important for nursing home patients with Alzheimer’s Disease and related dementias (ADRD), who are at risk for complications that necessitate urgent decision-making about medical treatments. Prior work suggests significant variability in nursing home staff implementation and training.

Methods: The NIH funded embedded pragmatic clinical trial APPROACHES was implemented in 64 nursing homes. Semi-structured interviews were conducted with 14 nursing home staff from unique facilities who completed the APPROACHES ACP Specialist Program online training and facilitated a minimum of 10 ACP conversations. The goal was to understand the experiences of staff in different facilities. Interviews were completed by phone, recorded, and transcribed. Interview transcripts were coded using qualitative descriptive methods.

Results: Themes suggest the ACP Specialists occupy a central role of the program but rely on other members of the team to work collaboratively. The flexibility of the ACP Specialist Program enabled ACP Specialists to tailor the program to their own facility. Benefits of ACP included stress reduction and improved preparation for families, increased confidence and professional growth for ACP Specialists, as well as better connections between staff and families. Challenges included implementation of the program, facilitating difficult conversations, and moral distress related family decision-making. The role of family members in ACP was complex, highlighted by situations where the surrogate expressed preferences that were discordant with the resident’s prior preferences, family disagreement, and difficulty engaging family in ACP.

Conclusions: Training and support for ACP provides benefits to residents, families, and staff. The experiences of ACP Specialists highlight the importance of leadership support of ACP as well as a flexible approach to ACP training and implementation that permitted adaptations to the facility culture.

B127 Student Presentation

Exploring Equity in Hospital at Home Model: A Qualitative Study

J. Nnemngbeng,¹ A. Baim-Lance,^{1,2} B. Howard,¹ F. Ko,^{1,2} g. Schiller,¹ B. Leff,³ L. DeCherrie,⁴ D. Levine,⁵ A. Siu.^{1,2} 1. *Icahn School of Medicine at Mount Sinai, New York, NY*; 2. *Veterans Health Administration, Bronx, NY*; 3. *Johns Hopkins Medicine, Baltimore, MD*; 4. *Medically Home Group Inc, Boston, MA*; 5. *Harvard Medical School, Boston, MA*.

Background: Hospital at Home (HaH) offers safe, cost-effective, and quality care, but less is known about equity as it relates to the program’s national implementation. The objective of this research is to explore HaH program leader perspectives on the dimensions of, barriers to, and interventions to promote equity with HaH.

Methods: We conducted in-depth semi-structured interviews with HaH program leaders. Programs were diverse by size, safety net status, and geography. Interviews were conducted virtually, recorded, and transcribed. Rapid analysis used deductive categories and debrief templates to identify key themes.

Results: We completed 15 single or group interviews with 24 program leaders (Table 1). Overall, they expressed multi-level challenges related to delivering HaH equitably, including: systemic accessibility factors (Wi-Fi coverage, geographic terrain, payer arrangements, state-level regulations); home-related safety concerns (pets, firearms, caregiver availability); patient characteristics (language, substance use); and patient and family preferences. Program leaders described the importance of identifying, as well as the challenges of securing, ongoing supportive services to alleviate the burden of poor social determinants of health. Equity-related issues arose by also describing innovative interventions, though some problems were harder to mitigate at systems (e.g., broadband gaps) and cultural (impressions of ‘safe’ vs ‘unsafe’ home environment) levels.

Conclusion: Equitable access and delivery of HaH presents multi-prong challenges and requires various responses, some the field has already developed and should expand. These include strategies like education and training for patients, caregivers, and staff. Program leaders demonstrated willingness to address challenges, a significant starting place to promote HaH inclusivity.

Table 1. HaH Program Characteristics

US Region Count (12*)

Midwest 3
Northeast 3
Southwest 1
South 4
Mid-Atlantic 1

Number of hospitals in health system

≤5 8

≥6 4

Health system rurality

Rural 1

Urban 5

Mixed 6

Safety-net 8**

*Table excludes 3 commercial HaH leader interviews

**Published on “Essential Hospitals” list (accessed 11/01/2023)

B128 Student Presentation Role of Informal Male Spousal Caregivers After Urogynecologic Surgery in Older Adults

L. Yu,¹ L. Vargas,¹ A. Pollard,³ S. Zuo,^{3,4} S. Orris,⁴ J. Chang,^{1,2} M. Ackenbom.^{1,2} 1. *University of Pittsburgh School of Medicine, Pittsburgh, PA*; 2. *Magee-Womens Research Institute, Pittsburgh, PA*; 3. *UPMC, Pittsburgh, PA*; 4. *University of Pittsburgh, Pittsburgh, PA*.

BACKGROUND: Older women who undergo elective urogynecologic surgery often rely on short-term, informal caregiving from their spouses during postoperative recovery. There is a paucity of data on the dynamics of caregiving relationships and the needs for both patients and spouse caregivers. This study aims to understand the experiences and concerns of older male spouses who serve as short-term informal caregivers of patients who underwent elective urogynecologic surgery.

METHODS: We conducted semi-structured telephone interviews with caregivers of patients aged ≥ 60 years who underwent pelvic organ prolapse (POP) surgery at a large academic medical center between 2018-2019. Interviews were recorded with consent and transcribed verbatim. Transcripts were coded using NVivo software by 2 independent coders who then met with a 3rd investigator to assess codes and identify themes. A universal codebook was created. This iterative process continued for all transcripts and thematic saturation was achieved.

RESULTS: We interviewed 16 male spouses. Major themes that emerged included: 1) male caregiver discomfort with societally gendered tasks traditionally performed by their female spouses, 2) male caregiver willingness to take on new duties (cooking, housework, etc.) during patient recovery, and 3) male caregiver confidence with tasks they identified as their responsibility (driving, lifting, etc.). Themes were at times contradictory but may be explained by an overall deference to their partner despite a lack of familiarity with certain caregiving tasks. Some caregivers mentioned that the recovering patient still opted to complete gendered tasks during recovery. Nonetheless, older male spousal caregivers expressed intent to perform tasks or learn skills regardless of their comfort in order to provide care for their spouse.

CONCLUSIONS: This study provides insight into the role and experience of male spousal caregivers of older POP surgery patients. These findings highlight the opportunity to better educate older patients and their spousal caregivers on potential expectations and needs for urogynecologic surgery recovery. This information, given as part of preoperative counseling, may optimize postoperative recovery planning.

B129 Student Presentation The Development of Mesoporous Melanin Nanoparticles as Drug-Delivery Carriers for the Treatment of Age-Related Macular Degeneration

M. C. Kaufmann,¹ Y. Kwon,² M. Zheng,² Z. Han.^{2,3} 1. *The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC*; 2. *Department of Ophthalmology, The University of North Carolina at Chapel Hill, Chapel Hill, NC*; 3. *Division of Pharmacoengineering & Molecular Pharmaceutics, The University of North Carolina at Chapel Hill Eshelman School of Pharmacy, Chapel Hill, NC*.

Background: Age-related macular degeneration (AMD) is the leading cause of central vision loss. Current therapies for AMD are limited, and the development of effective treatments for AMD remains greatly needed. Melanin is found in the skin and retinal pigment epithelium (RPE), where it functions as a photoscreeener, free radical scavenger, and metal cation binding reservoir. Melanin in the RPE cannot be regenerated, and the quantity and functions of RPE melanin diminish with age. This study aims to determine the efficacy of

mesoporous melanin nanoparticles (mMNPs), distinguished by their interior pores, as antioxidative and anti-inflammatory drug-delivery agents for the treatment of AMD.

Methods: mMNPs were synthesized through self-assembly using F127/TMB/polydopamine. Subsequently, indomethacin (IMC), an anti-inflammatory drug, was loaded into mMNPs via EDC/NHS coupling. mMNPs and IMC-loaded mMNPs were characterized using TEM, DLS and UV-vis analysis. mMNP antioxidative activity against intracellular reactive oxygen species (ROS) and cytotoxicity were assessed by DCFDA and CCK8 assays, respectively. OCT, fundus, and immunocytochemistry analyses were conducted to evaluate the therapeutic effects of mMNPs and IMC-loaded mMNPs in a blue light-induced photodamage mouse model.

Results: TEM images showed mMNPs of ~ 150 nm in size with a pore diameter of 11 nm. The mMNPs exhibited strong antioxidative activity against intracellular ROS. Notably, we observed that mMNPs accumulated in the cytoplasm of RPE cells without nuclear entry. The cell viability was above 80 % at various concentrations of both mMNPs and IMC-mMNPs, indicating that they are safe and well-tolerated. Fundus and OCT images revealed retinal photodamage following blue light exposure, and intravitreal injection of mMNPs and IMC-loaded mMNPs attenuated levels of ROS and inflammation.

Conclusions: mMNPs can exert antioxidative effects, which can alleviate oxidative stress within the RPE that contributes to AMD development. Additionally, mMNPs can serve as potential drug-delivery agents of anti-inflammatory drugs to the RPE for the treatment of AMD.

B130 Student Presentation, Encore Presentation Cellular Senescence and the Senescence-Associated Secretory Phenotype in Human Synovium from Tissue Donors and Osteoarthritis Patients

S. N. Tran,^{1,2} B. Diekmann,² S. Chubinskaya,³ R. F. Loeser.² 1. *University of Vermont Larner College of Medicine, Burlington, VT*; 2. *Thurston Arthritis Research Center, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC*; 3. *Rush University Rush Medical College, Chicago, IL*.

Background: Synovial inflammation contributes to the pathogenesis of osteoarthritis (OA) and is associated with cellular senescence and the senescence-associated secretory phenotype (SASP), which include proinflammatory cytokines and matrix degrading enzymes. The objective was to investigate cell senescence and SASP factor production in synovial tissue obtained from tissue donors without a known history of OA and from patients with advanced OA.

Methods: 9 donor tissues without a known history of OA and 23 OA synovial tissues from patients undergoing total knee arthroplasty were obtained. Hematoxylin and eosin-stained synovium were graded (0-3 scale) for lining thickness, fibrosis, inflammatory cell infiltration, and angiogenesis, and were summed for a total score. Immunohistochemistry and immunofluorescence (IF) were used to assess (0-3 scale) the presence of senescence markers p16 and p21, and SASP marker IL-6. ELISA was employed to analyze for SASP factors IL-6, ENA-78, and MMP-1 in synovial fibroblasts treated with catabolic stimulus fibronectin fragment (FN-f).

Results: The summed synovial scores for tissue donors (3.25 ± 2.71) did not differ from OA samples (3.31 ± 1.46) nor did the sub-scores. In donor tissue, age was directly correlated to the IF score of p16 ($r = 0.98$, $p = 0.03$). Compared to donor tissue, OA synovial fibroblasts produced more basal MMP-1 ($p = 0.04$) and more FN-f stimulated IL-6 ($p = 0.004$). Fibrosis scores were inversely correlated with the IL-6 ($r = -0.719$, $p = 0.035$) and MMP-1 ($r = -0.788$, $p = 0.015$) levels from FN-f stimulated OA synovial fibroblasts.

Conclusions: Senescent cells in the knee synovium of older adults may precede the development of advanced symptomatic OA. The increased responsiveness of OA synovial fibroblasts to a catabolic

stimulus found in OA cartilage and synovial fluid supports the paradigm of cross-talk between the cartilage and synovium in OA. How this may be modified by fibrosis in the synovium deserves further investigation.

Disclosures: Research was supported by NIA T35 AG038047, NIA RO1 AG044034, and the Rush Klaus Kuettner Chair for Osteoarthritis Research.

B131

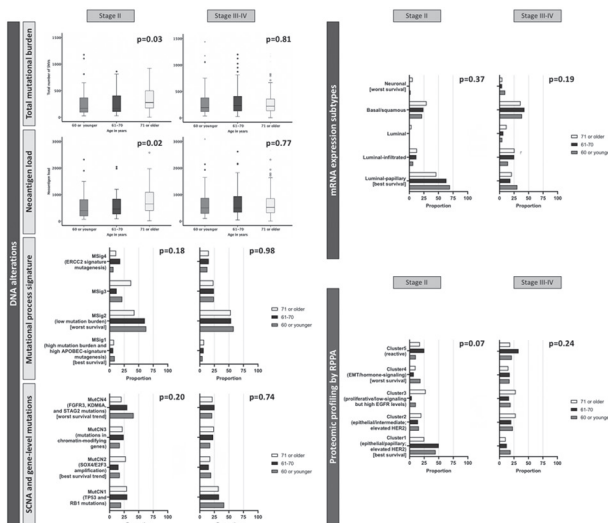
Age-Related Differences in Outcomes of Patients with Muscle-Invasive Bladder Cancer (MIBC): Biology vs Access to Care
A. Sood. *Urology, The Ohio State University, Columbus, OH.*

Background: It remains unclear whether the poor outcomes in older patients with MIBC treated with surgery/chemotherapy are due to differential access to timely medical care or intrinsic differences in tumor biology.

Methods: We designed an integrative study using two complementary datasets, the SEER-Medicare (n=2,307) and The Cancer Genome Atlas (n=410), to evaluate the real-world differences in survival outcomes and biological differences in tumor profiles of older vs younger patients. We additionally analyzed IHC-based immune-markers in 50 patients undergoing radical cystectomy as TCGA does not capture this information.

Results: Population-level analysis demonstrated that older patients at presentation had worse CSM (10-yr CSM: 47.8% in >=81 yr vs 44.1% in <=70 yr, Gray's p=0.03). However, after MVA, age was not associated with worse CSM (HR=1.06-1.14, p>0.05). TCGA analysis supported this finding and demonstrated that advanced age was associated with increased total mutational burden and neoantigen load, both of which are linked with improved survival. No other age-related differences were observed in DNA, mRNA, or RPPA proteomic profiles (Fig 1). Finally, there were no age-related differences in expression levels of CD3, CD4, CD8, CD56, LAG-3, TIM-3, PD-1 and PD-L1 molecules on IHC.

Conclusions: Our findings suggest that the poor outcomes seen among older individuals with MIBC are likely driven by delayed presentation, and not by differences in tumor biology. These findings should help formulate health-policy to ensure equitable care.



B132 Student Presentation

Quantifying changes in vascular oxidative stress in the microenvironment of vulnerable neurons over the course of Alzheimer's disease progression

J. Slobin,¹ A. McKendell,¹ J. Luebke,² E. McDonough,³ L. Lowery,³ D. Meyer,³ P. Hof,¹ M. Varghese.¹ *1. Icahn School of Medicine at Mount Sinai, New York, NY; 2. Boston University School of Medicine, Boston, MA; 3. GE HealthCare Technology & Innovation Center, Niskayuna, NY.*

Background: Alzheimer's disease (AD) is characterized by cellular changes and degeneration of vulnerable neuronal subpopulations that lead to cognitive decline. Degeneration in AD is heterogeneous across brain regions. Large projection neurons in the lateral prefrontal cortex (LPFC) layers 3 and 5 are more vulnerable to degeneration in AD, whereas the primary visual cortex (V1) is affected later and exhibits less neurodegeneration. The purpose of this study was to characterize changes in vascular oxidative stress in the microenvironment of vulnerable neurons.

Methods: We used multiplexed immunofluorescence (MxIF) to detect 40 markers of cell types and AD changes in LPFC and V1 of 7 neurotypical subjects, 4 cases with mild cognitive impairment, and 3 cases with severe cognitive impairment. QuPath was used to quantify image intensity for collagen IV, a marker for vasculature, and 3-nitrotyrosine (3NT), a marker for oxidative stress. A pixel classifier was created to segment collagen IV and 3NT and detect the area of their overlap.

Results: After correction by tissue area, there was a trend towards decreased vascular 3NT with clinical dementia rating (CDR) in LPFC and towards increased vascular 3NT in V1. Linear regression analyses showed a weakly negative relationship between Braak stage for tau pathology and vascular 3NT in LPFC and in V1. There was a weakly negative relationship between both age and Thal stage for amyloid-β pathology and vascular 3NT in LPFC and a weakly positive relationship in V1. With increasing CDR, cortical layers 3 and 5 show a trend towards decreased vascular 3NT in LPFC and increased vascular 3NT in V1.

Conclusions: The differences observed were not statistically significant based on the available cohort; however, this data serve as a proof-of-concept that the analytical pipeline is reliable. This pilot project is a subset of a larger study that will help further characterize changes in molecular phenotypes of vulnerable neurons' microenvironments. Future directions include expanding sample size, normalizing data to account for staining differences, and examining oxidative changes in other cell types, such as glial cells.

B133

Relative IFNγ deficiency is associated with poorer COVID-19 vaccination responses in seniors

V. W. Ho,³ H. Low,¹ P. MacAry,¹ C. W. Ong.² *1. Microbiology and Immunology, National University Singapore Yong Loo Lin School of Medicine, Singapore, Singapore; 2. Infectious Diseases, National University Hospital, Singapore, Singapore; 3. Geriatric Medicine, National University Hospital, Singapore, Singapore.*

Background: Seniors have been shown to exhibit poorer vaccination responses to SARS-CoV-2. However, the role of vaccine-induced T-cell responses is not well characterised. We aim to assess age-related immune responses after 2 doses of the BNT162b2 mRNA vaccine.

Methods: A prospective 3-month study was conducted on 15 young (21-40 years old) and 7 older adults (71-90 years old). We assessed neutralisation against SARS-CoV-2 variants using ACE-2 inhibition, changes in B and T-cell subsets by high-dimensional flow cytometry, and antigen-specific T-cell responses by intracellular cytokine staining and flow cytometry.

Results: Seniors had attenuated T-helper (Th) response to vaccination (%ICOS+PD-1+ Th cells in CD4+ T cells in young at D0 0.37±0.11 vs D100 0.54±0.22, p=0.03 vs old at D0 0.47±0.35 vs D100 0.37±0.09), which was associated with weaker antibody responses and decreased SARS-CoV-2 neutralisation. IFN γ -secreting CD4+ T-cells to wild-type and Omicron antigens increased in the young, which positively correlated with their neutralising antibody responses (Fig 1). This relationship was absent in seniors.

Conclusions: Seniors' relative IFN γ deficiency might explain their poorer vaccination responses. Further exploration into the aetiology would be integral in developing novel vaccination strategies for seniors.

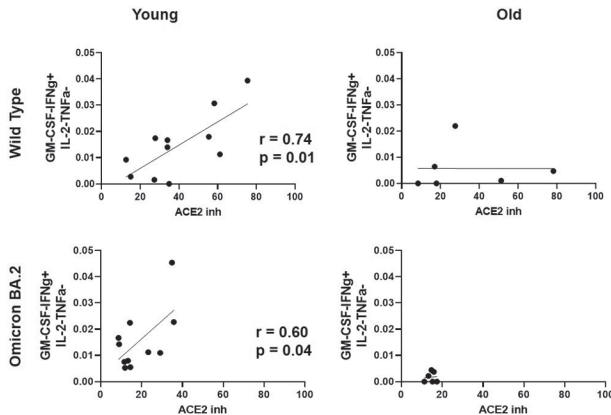


Fig 1. Correlation between percentage of spike-specific CD4+ cells expressing IFN γ and neutralisation against WT and Omicron BA.2 antigens at D100 in young (n=15) and old (n=7) vaccinees. Pearson's normally distributed correlation coefficient for linear data was used.

B134

GEMINI: Developing an Atlas of Multiple Long-Term Conditions

J. Masoli,^{1,2} O. Murrin,¹ N. Mounier,¹ B. Voller,¹ T. Frayling,¹ J. Delgado.¹ 1. University of Exeter, Exeter, United Kingdom; 2. Royal Devon University Healthcare NHS Foundation Trust, Exeter, United Kingdom.

Background:

Multiple Long-Term Conditions (MLTC), defined as the co-existence of two or more health conditions, is increasing globally, making it a research priority. GEMINI combines observational cohort data and genetic approaches to aim to understand shared pathological mechanisms of MLTC, working towards prevention and personalised interventions.

Methods:

Chronic conditions were defined by a diverse research team including clinicians and patient advisors. We estimated prevalence of conditions in two population-representative primary care cohorts: 2,425,014 participants from the UK Clinical Practice Research Datalink and 1,053,640 from the Spanish Information System for the Development of Research in Primary Care (SIDIAP). Single nucleotide polymorphism (SNP)-based heritability and pairwise genetic correlations were estimated using independent data from UK Biobank(UKB) and FinnGen cohorts.

Results:

72 conditions were defined as chronic with an observed prevalence >0.5% and genetic heritability.

Genetic correlation was demonstrated within disease domains as expected, for example hypertension was strongly genetically correlated with coronary heart disease (rg 0.54, 95%CI 0.51-0.57). There were more novel genetic correlations identified across disease domains, such as between asthma and ischaemic stroke (rg 0.26, 95% CI 0.16-0.37) or COPD and psoriasis (rg 0.30, 95%CI 0.22-0.37), which warrant further investigation.

Conclusions:

We have systematically analysed the shared genetics between multiple long-term conditions to develop an atlas of multimorbidity. We have identified novel pairs with previously unexplored genetic correlation. Next, we aim to understand the causal pathways of pairs of conditions and outcomes prioritised by patient and clinician advisors. Through this work we hope to identify potentials for clinical intervention.

B135

Distinct baseline immune characteristics associated with responses to conjugated and unconjugated pneumococcal polysaccharide vaccines in older adults

S. Ravichandran,² F. Erra-Diaz,² O. Karakaslar,² R. Marches,² L. Kenyon-Pesce,¹ R. Rossi,² D. Chaussabel,² D. Nehar-Belaid,² D. LaFon,⁴ V. Pascual,³ K. Palucka,² S. Paust,² M. Nahm,⁴ G. A. Kuchel,¹ J. Banchereau,² D. Ucar.² 1. Center on Aging, UConn Health, Farmington, CT; 2. Jackson Laboratory - Farmington, Farmington, CT; 3. Weill Cornell Medicine, New York, NY; 4. The University of Alabama at Birmingham Montgomery, Montgomery, AL.

Background: Pneumococcal infections cause serious illness and death among older adults. A capsular polysaccharide vaccine PPSV23 (Pneumovax®) and a conjugated vaccine PCV13 (Prevnar®) are used to prevent these infections, yet underlying immunological responses, and baseline predictors remain unknown.

Methods: To address this, we recruited 39 healthy pneumococcal vaccine-naïve adults ≥ 60 years old and vaccinated them with either PCV13 (n=19) or with PPSV23 (n=20) during the 2017 and 2018 seasons. We collected blood from this cohort longitudinally and studied their baseline immune phenotypes and immune responses upon vaccination using multiple assays: opsonophagocytic antibody assay (OPA) to quantify functional antibody responses, flow cytometry, as well as PBMC bulk and single cell RNA-seq.

Results: Both vaccines induced strong antibody responses at day 28 and similar plasmablast transcriptional signatures at day 10, however, their baseline predictors were distinct. Analyses of baseline flow cytometry and RNA-seq data (bulk and single cell) revealed a novel baseline phenotype that is specifically associated with weaker PCV13 responses, characterized by i) increased expression of cytotoxicity-associated genes and increased CD16⁺ NK frequency; ii) increased T_H17 and decreased T_H1 cell frequency. Men were more likely to display this cytotoxic phenotype and mounted weaker responses to PCV13 than women. Baseline expression levels of a distinct gene set was predictive of PPSV23 responses. This first precision vaccinology study for pneumococcal vaccine responses of older adults uncovered novel and distinct baseline predictors that might transform vaccination strategies and initiate novel interventions.

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B136 Student Presentation, Encore Presentation Targeted Curriculum Improves Resident Physician Knowledge and Confidence in Caring for Patients Under Guardianship

C. Shannon, C. Vitale, L. Dubin, A. Battles, K. Zietlow. University of Michigan Michigan Medicine, Ann Arbor, MI.

Background: As the US population ages, there will be an increase in persons living with dementia (PLWD) in need of surrogate decision-makers. Those who have not completed a Durable Power of Attorney for Healthcare or other instrument designating an alternate decision-maker are at risk of being appointed a legal guardian. While sometimes necessary to protect an individual's safety, guardianship restricts autonomy and may lead to exploitation of the PLWD. Although most family medicine (FM) and internal medicine (IM) physicians will care for patients living under guardianship, and many will participate in legal proceedings pertaining to guardianship, we could not identify any formal curricula on this topic for IM or FM trainees.

Methods: We developed a 90-minute guardianship didactic course that is case-based and interactive. The course was constructed by a geriatrician, with input from an attorney and social worker. We piloted this to housestaff at a large academic medical center. Trainees completed a pre- and post-survey appraising knowledge and attitudes about guardianship.

Results: 72 trainees participated. 15% reported receiving prior training on guardianship and 46% received prior training on surrogate-decision making. Scores on the knowledge assessment significantly improved after attending the session (44% to 61%, $p < 0.001$). Feedback on the course was resoundingly positive and respondents felt more confident in their ability to care for PLWD as a result (see Table).

Discussion: There is an educational gap in current physician training regarding the processes of guardianship for PLWD. A targeted guardianship curriculum was feasible to deploy and improved self-perceived confidence with caring for and counseling PLWDs and their families. Increasing clinician knowledge on this topic may help to preserve autonomy for this vulnerable population.

Quantitative Course Feedback

Rate your level of agreement with the following statements N (%)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The content of this lecture was effectively organized.	38 (77%)	11 (22.4%)	0 (0%)	0 (0%)	0 (0%)
The content of this lecture was clinically relevant to my current and/or future practice.	39 (80%)	10 (20%)	0 (0%)	0 (0%)	0 (0%)
As a result of this course, I feel better able to manage older adults with cognitive impairment.	19 (39%)	29 (59%)	1 (2%)	0 (0%)	0 (0%)
As a result of this course, I feel comfortable counseling patients or their families about potential guardianship and alternatives.	19 (39%)	23 (47%)	7 (14%)	0 (0%)	0 (0%)
My clinical practices will change as a result of this course.	19 (39%)	24 (49%)	6 (12%)	0 (0%)	0 (0%)

B137

Experience of Age Discrimination in 116 Countries

R. Ng, Penn Nursing, University of Pennsylvania, Philadelphia, PA.

Background: Recognizing the global prevalence of age discrimination is a necessary prelude to counteracting the issue. Currently, the most extensive attempt to quantify its prevalence includes only 57 countries. This study constitutes the largest global analysis on age discrimination to date. Specifically, it draws data from 118,374 people in 116 countries and territories using nationally representative samples that cover over 95 percent of the global population. The sheer scope of our dataset not only paints a more accurate global portrait of ageism, but also promises fresh insights into the topic, particularly in the Global South where little is known about it.

Methods: We collected data using through the World Risk Poll that leveraged on the 2021 Gallup World Poll. Respondents were asked the following dichotomous question (1: ‘yes’; 2: ‘no’): “Have you personally ever experienced any discrimination because of your age?” As this study is concerned with ageism directed at older people, we included only the responses of individuals aged 55 and above ($N=31,220$).

Results: Of the 116 countries and territories, most of the countries where age discrimination is most prevalent are in the Global South. In particular, age discrimination is most prevalent in Congo Brazzaville (35%), Bolivia (34%) and Afghanistan (33%). Meanwhile, age discrimination is least prevalent in Iceland (0%), Egypt (0%) and Japan (1%).

Conclusions: International efforts to tamp down ageist mindsets and behaviors should pay special heed to the particularities of each nation, especially countries in the Global South. This will ensure no country is overlooked in the global mission to eradicate ageism.

B138

Feasibility of a pharmacist-based approach to improve management of dementia in the primary care setting

H. Houle,² E. N. Francis,¹ O. Vardeny,¹ A. Westanmo,¹ J. Risher,¹ H. Fink.³ 1. Pharmacy, Minneapolis VA Medical Center, Minneapolis, MN; 2. Pharmacy, Cheyenne VA Medical Center, Cheyenne, WY; 3. Minneapolis VA Geriatric Research Education and Clinical Center, Minneapolis, MN.

Background: There are emerging models to improve dementia care in the primary care setting inclusive of pharmacotherapy treatment. Pharmacists are an integral part of the health care team in primary care clinics at the Veterans Health Administration and provide medication management for various disease states. This project aimed to train pharmacists on medications for dementia to expand dementia management in primary care.

Methods: A prospective quality improvement project determined feasibility of a coaching educational model and tool development to enhance prescribing of cholinesterase inhibitors (ChEIs) in primary care. This single center study was conducted at the Minneapolis Veterans Affairs Health Care System and its 13 outpatient clinics. Participants were primary care-based clinical pharmacy practitioners (CPPs) who were provided education with a presentation, note template, treatment algorithm, and option to pursue peer coaching. The primary outcome was pharmacist satisfaction with the peer coaching model. Secondary outcomes included usage of the note template and treatment algorithm. These were assessed with Likert scale surveys and analyzed utilizing descriptive statistics.

Results: Out of 21 eligible primary care CPPs who attended the CE presentation, 6 opted to complete the peer coaching model. Five CPPs completed the post-education methods survey. Four of 5 respondents strongly agreed coaching/modeling was useful for managing ChEIs and would utilize this education method if offered to help manage other disease states. The majority of participants found the template and algorithms helpful for ChEIs management and would be more likely to manage a new disease state if these were provided. Following the CE presentation, 97% of attendees felt comfortable talking to patients/caregivers about ChEIs for dementia.

Conclusions: This peer coaching model for dementia management education resulted in high satisfaction amongst participating primary care CPPs. Additional study is needed to explore whether peer coaching, note template and treatment algorithms result in increased management of dementia within primary care.

B139

Building an Age-Friendly Trauma Service Line in a Large Health System-Part I

E. J. Ferguson,² L. Heidenreich,² T. Calpin,² A. Clontz,² C. Ikeji,¹ A. Greenough,² M. Jones,¹ N. Jones,¹ D. Nicholas,² L. Scheunemann,¹ S. Tadic,¹ A. Peitzman.² 1. Medicine, University of Pittsburgh, Pittsburgh, PA; 2. Trauma, UPMC, Pittsburgh, PA.

Background: UPMC Trauma Service Line treats over 12,000 patients annually at 5 adult trauma centers with 45% aged 65 or older. Top hospital events in this population are delirium, unplanned ICU admission, and UTI. We formed a multidisciplinary Geriatric Trauma Workgroup in January 2023 to improve outcomes in our older patients.

Methods: 1) To identify geriatric trauma patients at-risk for hospital events, we selected the AM-PAC Mobility Score as a proxy measure for frailty. 2) We updated and adopted the 5M’s Framework of Age-Friendly Care in our Practice Management Guidelines. 3) We developed a Geriatric Trauma Series consisting of 4 educational modules on Care of the Hospitalized Elderly, Use of AM-PAC Mobility Score, 5 M’s Framework, and Delirium. Modules were launched on an educational platform across the health system at all 5 trauma centers and completion monitored. Target audience included trauma service members: physicians, residents, advance practice

providers, nurses, nursing assistants, and patient care technicians. 4) We established the current baseline of our Guideline compliance indicators (ABG on admission, frailty score <24h, unplanned ICU <24h, and code status <24h) and defined benchmarks. Baseline compliance with indicators was obtained by random sampling of trauma patients over a 6-month period (Jan-Jun 2023) prior to the education.

Results: Education modules were assigned to 3,241 trauma service members across the system. From Sept-Nov 2023, 3,054 employees (94%) completed the modules. All centers fell below benchmark at baseline for code status within 24 h (40-80%). 3 centers fell below benchmark at baseline for ABG on admission (20-70%). 1 center fell below 95% benchmark for Unplanned ICU admission (90%). Frailty score <24h benchmark of 90% was met at all centers.

Conclusions: Initial data show a successful completion rate of Age-Friendly Care education modules across a large health system. Baseline compliance indicators need improvement. We continue to define and implement strategies to improve outcomes and evaluate the effects of our ongoing initiative.

B140

Prolonged Use of Postoperative Gabapentin after Transition from Skilled Nursing Facilities

T. Bongiovanni,¹ S. Gan,² J. D. Harrison,² W. Boscardin,² E. Finlayson,² M. Steinman.² *1. Surgery, University of California San Francisco, San Francisco, CA; 2. UCSF, San Francisco, CA.*

Background

Recent studies have found that one-fifth of older adults newly prescribed gabapentin for perioperative pain continue to use it ≥ 3 months after surgery, despite its intended short-term postoperative use. Care transitions present a challenge for medication management and deprescribing in older adults and the transition to SNF (SNF) is especially fraught. It remains unclear how the transition to a skilled nursing facility after surgery impacts on the older adults' use of gabapentin. Therefore, we aimed to quantify the risk of prolonged postoperative use of gabapentin in this patient group.

Methods

Using a 20% Medicare Sample, we created a cohort of older adults undergoing one of 14 common non-cataract surgeries covering a large range of body systems who were discharged to a SNF with less than a 90-day stay. We merged Medicare Carrier and Outpatient Files for 2013-2018. We assessed new gabapentin prescribing only, counting any prescription 7 days before or after surgery or SNF discharge. The primary outcome was prolonged use of gabapentin, defined as ≥ 90 days after surgery. We constructed logistic regression models to identify risk factors for prolonged use.

Results

There were 73,166 older adults discharged to a SNF after an eligible surgical procedure. These patients were 86% white and 72% women. The most common procedures were total knee and total hip arthroplasty. Of this group, 4% had a *new* prescription for gabapentin. Among those with new prescriptions discharged to SNF, 40% were still refilling gabapentin ≥ 90 days after surgery. On multivariable regression, variables associated with prolonged use included longer length of hospital stay ($p < 0.01$), more days supply of the discharge gabapentin prescription ($p < 0.001$), unplanned surgery ($p < 0.001$), and higher area deprivation index ($p < 0.01$).

Conclusions

While a small percentage of older adults discharged to SNF fill a prescription for gabapentin in the postoperative period, nearly half of those are still filling a prescription 90+ days after surgery. These results identify opportunities for deprescribing of gabapentin, a medication with potential for causing adverse drug events, especially when used long-term.

B141 Student Presentation

A comprehensive yet pragmatic cognitive screening at the emergency department: capturing risks beyond delirium

G. Stanzola de Moraes, P. K. Curiati, M. J. Aliberti.

Hospital Sirio-Libanes, Sao Paulo, Brazil.

Background: Although preexisting cognitive impairment is common in older patients admitted to hospitals, this problem often goes undetected in acute care settings. Moreover, whether assessing preexisting cognitive impairment adds predictive value to delirium in fast-paced acute care settings remains an open question. Our study investigated how assessing both preexisting cognitive impairment and delirium affects mortality risk prediction within 30 days after emergency department (ED) admission in acutely ill older patients.

Methods: Prospective cohort comprising patients aged 65 years and older admitted from the ED. Upon admission, investigators used the brief Confusion Assessment Method (bCAM) to assess delirium, and those patients without delirium were further evaluated using the 10-Point Cognitive Screener (10-CS), a two-minute bedside battery validated for detecting preexisting cognitive impairment. They also assessed clinical history about previous diagnoses of dementia. This strategy defined cognitive status as (1) normal cognition (10-CS > 5 + negative clinical history); (2) preexisting cognitive impairment only (10-CS ≤ 5 or positive clinical history); (3) delirium only (bCAM positive); or (4) delirium superimposed to preexisting cognitive impairment (bCAM positive + positive clinical history).

Results: Among 830 patients (mean age 80 years, 53% men), 171 (21%) presented with delirium, of whom 114 (67%) also had preexisting cognitive impairment. Additionally, 232 patients (28%) had preexisting cognitive impairment without delirium. In Cox models adjusted for standard sociodemographic and clinical factors, the 30-day risk of death was higher in patients with preexisting cognitive impairment only (4% vs. 1%; aHR=3.4, 95% CI=1.1-10.3), delirium only (16% vs. 1%; aHR=9.0, 95% CI=2.8-28.6), and delirium superimposed to preexisting cognitive impairment (11% vs. 1%; aHR=5.0; 95% CI=1.6-15.5) compared to those with normal cognition.

Conclusions: A comprehensive yet pragmatic cognitive bedside assessment upon hospital admission helped clinicians identify short-term mortality risks in acutely ill older patients. To capture prognostic risks beyond delirium, easy-to-use cognitive screenings such as the 10-CS should be integrated into ED protocols.

B142 Student Presentation

Reimagining Emergency Care in an Aging Population: A Comprehensive Review and Protocol of Delirium Screening Tools

I. Brammer,¹ A. L. Chajekki,¹ H. Becker,¹ L. Steckler.² *1. School of Medicine and Health Sciences, The George Washington University, Washington, DC; 2. Emergency Medicine, George Washington University Medical Faculty Associates, Washington, DC.*

Background:

Delirium poses a significant challenge in the emergency department (ED), affecting patient morbidity and mortality. While a number of screening tools have been validated, the efficacy and suitability of delirium screening tools in the geriatric ED (GED) setting specifically has yet to be assessed in depth. Our study examines delirium screening tools at length in order to create a sustainable and efficacious protocol for the geriatric emergency setting.

Methods:

We conducted a comprehensive systematic review of original English studies within the United States using databases including PubMed, MEDLINE-Ovid, and Scopus from 2013 to 2023. We evaluated the total sample of articles ($n = 109$) for most frequently included delirium and cognitive impairment screening tools. Studies involving children, specific procedures, interventions, postoperative delirium, or non-ED settings were excluded. Based on the numerical frequency of

these delirium screening tools, the 7 most studied tools were analyzed of sensitivity, specificity, delivery time, inter-rater reliability, and general features.

Results:

Of the 109 articles, Confusion Assessment Method (CAM) was used 69 times, CAM-ICU used 44, 4 A's Test (4AT) used 37 times, brief-CAM (bCAM) used 24, Delirium Triage Screen (DTS) used 20, Single Question in Delirium (SQiD) used 18, and modified CAM ED (mCAM-ED) used 10. The results of the systematic review show 4AT as the most sensitive (Tieges, 2021: 95% CI 0.80–0.93, Jeony, 2020: 81.5%, Bellelli, 2014: 89.7%) and specific (Tieges, 2021: 95% CI 0.82–0.92, Jeony 2020: 87.5%, Bellelli, 2014: 84.1%) tool with a delivery duration of only 2 minutes. Based on our findings, we developed an interventional protocol for hospital-acquired delirium in the GED.

Conclusion:

In conclusion, our comprehensive analysis of delirium screening tools validated for the ED setting, considering factors such as sensitivity, specificity, and administration time, supports the use of 4AT as the optimal choice to detect delirium, facilitating timely intervention, mitigation of complications, and ultimately, improved patient outcomes. Our protocol for the George Washington University GED aims to incorporate the 4AT into routine delirium screening and sets the stage for future prospective research.

B143

Association Of Traumatic Intracranial Hemorrhage and Morse Fall Scale Score Among Geriatric Patients Who Have Experienced Head Trauma due to a Fall

F. Andrade, A. Ricker, G. Engstrom, R. Shih. *Florida Atlantic University, Boca Raton, FL.*

Background: Identifying people at risk of falls is important in preventing injury among the geriatric population. One of the major concerns about falls among older adults is the risk of head trauma and intracranial hemorrhage (ICH). The Morse Fall Scale Score (MFSS) is widely used as a tool to stratify fall risk in older individuals. Higher scores are related to a greater risk of falls. This study investigates the association of MFSS with ICH among older adults who presented with traumatic brain injury resulting from a fall.

Methods: This is a secondary analysis of a database that investigated patients aged 65 and older who presented to two community level I trauma centers with head trauma. Patients were identified from the emergency department (ED) census based on an ICD-10 diagnosis of head injury (S00-S09) or the performance of a head CT for trauma-related reasons. Patients transferred from another hospital were excluded. The primary outcome focused on the incidence of ICH, determined by the first head CT. Patients with a fall were then compared across three fall risk levels utilizing the MFSS.

Results: Among 5,425 eligible admissions, 4,547 patients (83%) presented with a fall and underwent an MFSS assessment. 1,224 (27%) had a low risk MFSS, 944 (22%) medium risk, and 2,329 (51%) high risk. Majority of the patients were female (57%). The mean age increased by a statistically significant margin as MFSS groups increased (82, 83, and 84 respectively). There was a significantly greater percentage of patients in the high risk MFSS group with an ICH than in the medium and low risk groups (11% vs 4%; p<0.001 and 11% vs 4%; p<0.001 respectively). There was no difference in ICH rate in medium vs low risk patients (4% vs 4%; p=.840). Patients with hypertension (HTN), cognitive impairment (CI), coronary artery disease (CAD), atrial fibrillation (AF), cerebrovascular attack (CVA), and congestive heart failure (CHF) were significantly associated with higher MFSS risk scores.

Conclusion: In this study of older adults presenting to the ED with head trauma, a high risk MFSS score correlated with a higher risk of ICH after a fall. In addition, several comorbidities were associated with higher MFSS values. These findings highlight the importance of implementing fall risk screening to identify patients at high risk of serious fall-related injury.

B144

Nationally Representative Estimates of Short- and Longer-Term Hospital Readmissions After Major Surgery Among Community-Living Older Americans

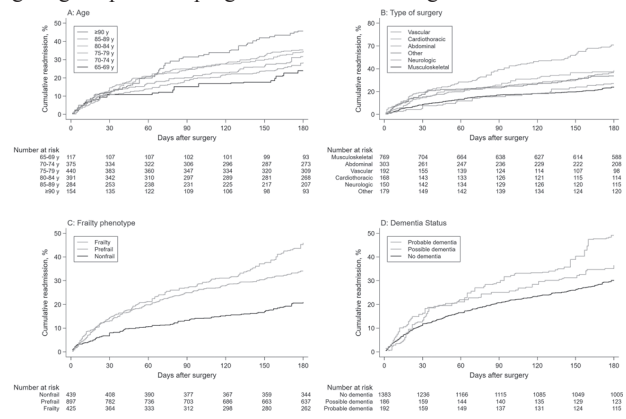
Y. Wang, L. Leo-Summers, B. Vander Wyk, K. Davis-Plourde, R. Becher, T. Gill. *Yale University, New Haven, CT.*

Background: To provide population-based estimates of hospital readmission within 30 and 180 days after major surgery in community-living older Americans, and to determine how these estimates differ according to key demographic, surgical and geriatric characteristics.

Methods: Prospective longitudinal study based on data from the National Health and Aging Trends Study(NHATS), linked to records from the Centers for Medicare & Medicaid Services(CMS). Major surgeries and hospital readmissions were identified through CMS files that included both fee-for-service and Medicare Advantage. Data on frailty and dementia were obtained from the annual NHATS assessments.

Results: Of the 1,780 major surgeries(9,556,171 survey-weighted), the weighted rates of hospital readmission within 30 and 180 days were 11.6% and 27.6%, respectively. As shown in the figure, the highest readmission rates within 180 days were observed among participants 90 years or older (36.8%), those undergoing vascular surgery (45.8%), and persons with frailty (36.9%) or probable dementia (39.0%). In age- and sex-adjusted models with death as a competing risk, the hazard ratios for hospital readmission within 180 days were 2.29 (95% CI, 1.70-3.09) for frailty and 1.58 (95% CI, 1.15-2.18) for probable dementia.

Conclusions: In this nationally representative study, nearly 1 of 8 community-living older Americans had a readmission within 30 days after major surgery, and over 1 of 4 had a readmission within 180 days. The likelihood of readmissions within 180 days was increased among those who were frail or had probable dementia, highlighting the potential prognostic value of these geriatric conditions.



B145 Encore Presentation

Atrial fibrillation and rate controlling agents: Do they impact fall risk?

B. Ashqar,¹ O. Deland,¹ S. Dara,¹ S. Gelman,³ M. Jayaram,¹ M. Vollenbrecht,¹ M. Luebke,¹ M. Parulekar.² *1. Geriatrics, Hackensack Meridian Hackensack University Medical Center, Hackensack, NJ; 2. Internal Medicine-Geriatrics, Hackensack University Medical Center, Hackensack, NJ; 3. Research Administration, Hackensack Meridian Hackensack University Medical Center, Hackensack, NJ.*

Background: Falls are a predominant cause of morbidity and mortality among the older adults, and atrial fibrillation (Afib) can increase this risk. Rate-controlling agents such as beta-blockers (BBs) and calcium channel blockers (CCBs) are essential in Afib management but may contribute to fall risk due to their side effects.

The primary objective of this study is to assess the impact of BBs and CCBs on fall risk in older adults with Afib.

Methods: A retrospective study was conducted at Hackensack University Medical Center for patients 65 years and older with diagnosis of Afib who were on BBs, CCBs, or both. Data on falls, medication type, and patient demographics were collected and summarized, and logistic regression was utilized to adjust for age, gender, ethnicity, and Hendrich II Fall Risk scores.

Results: The study included 300 patients, with 53% on combined BB and CCB therapy, 35% on BBs alone, and 12% on CCBs alone. The adjusted proportions of falls were 53% for those on combined therapy, 65% for BBs, and 65% for CCBs. Logistic regression analysis indicated that higher Hendrich II Fall Risk scores were significantly associated with increased fall risk (OR 1.20, $p < 0.001$), whereas age showed a moderate effect (OR 1.05, $p = 0.003$). No significant differences in fall risk were observed based on the medication group when controlling for other factors, though a reduction in falls in the combined therapy group trended towards significance ($p=0.063$).

Conclusion: While BBs and CCBs are used frequently in Afib management, our findings suggest that fall risk is more strongly associated with intrinsic fall risk factors, as evidenced by the Hendrich II scores, rather than the choice of rate-controlling medication. This indicates that when considering a rate-controlling agent for patients with Afib, a patient's fall risk should be assessed on an individual basis, as their overall fall risk profile may lead to increased risk of falls rather than the specific medications used for Afib.

B146 Resident Presentation Perioperative Optimization of Older Adults Undergoing Colorectal Surgery

R. Tang,¹ P. Raje,¹ M. L. Russell,² S. Pulluru,² A. Rajaragupathi,¹ H. Kunitake,¹ M. Higuchi.² 1. *Surgery, Massachusetts General Hospital, Boston, MA;* 2. *Medicine Geriatrics Palliative Care, Massachusetts General Hospital, Boston, MA.*

Background: The Perioperative Optimization of Senior Health (POSH) clinic was established to address vulnerabilities and improve outcomes in geriatric patients. This study describes the results of comprehensive perioperative optimization by the POSH interdisciplinary team (IDT) in patients who underwent colorectal surgery.

Methods: Colorectal surgery patients enrolled in the POSH clinic (October 2021 – September 2023) were retrospectively identified. Descriptive statistics were used to summarize the findings of preoperative geriatric assessment and postoperative outcomes.

Results: Of 90 total patients evaluated in the POSH clinic, 36 were scheduled for colorectal surgery. 29 patients ultimately underwent surgery including partial colectomy (62.1%), ostomy reversal (20.7%), abdominoperineal resection (APR) (6.9%), and suture rectopexy (6.9%) and were followed postoperatively for 90 days. Median age was 80 years. At geriatric evaluation, 27.6% of patients had cognitive impairment, 72.4% were malnourished/at risk of malnutrition, and average Comprehensive Geriatric Assessment Frailty Index (FI-CGA) score was 0.247.

After interdisciplinary discussion, the following recommendations were implemented: physical therapy (55.2%), medication adjustment (34.5%), nutritional supplementation (24.1%), advanced care planning (86.2%), and specialty referrals (13.8%). Postoperative complications included ileus (24.1%), delirium (6.9%), ICU stay (3.5%), and pulmonary embolism (3.5%). Median length of hospital stay was 5 days. 41.4% patients were discharged home, 34.5% were discharged home with services, and 24.1% were discharged to a facility. All-cause 30-day readmission rate was 24.1%. All indications for readmissions were medical in nature. 30-day reoperation and 90-day mortality rates were 0.

Conclusions: Following interdisciplinary perioperative optimization, frail patients underwent colorectal surgery with low postoperative morbidity/mortality, and over 75% of patients returned home. The POSH model may improve postoperative outcomes in frail and medically complex older adults undergoing colorectal surgery.

B147

The Impact of American College of Surgeons' Geriatric Surgery Verification Program in Patients Aged 65 and above Undergoing Major Abdominal Oncologic Operations at a Community Hospital

J. Abi Chebl,⁴ M. Jimenez,¹ L. Vognar,^{1,2} P. Somasundar,¹ J. Dandeneau,¹ A. DiMeo,³ J. Fernandez,¹ S. Celik,³ S. Kwon.¹ 1. *Roger Williams Medical Center, Providence, RI;* 2. *Brown University, Providence, RI;* 3. *Boston University, Boston, MA;* 4. *Geriatrics, Roger Williams Medical Center, Providence, RI.*

Background: The United States population is living longer and the frequency of surgical operations performed for cancer in older adults is increasing. Older adults are at higher risk for surgery and are less likely to be discharged to home from the hospital than their younger cohorts. The aim of the study was to evaluate the impact of the American College of Surgeons (ACS) Geriatric Surgery Verification (GSV) Program on clinical outcomes in patients aged 65 or more undergoing major abdominal oncologic surgery.

Methods: A retrospective study of patients aged 65 years or more undergoing major oncologic abdominal surgery with an inpatient stay for at least two days was performed from 2021-2022. The intervention was defined as the initiation of participation in the ACS GSV Program at the start of 2022 and these patients were followed prospectively by our surgical oncology nurse navigator. Patients meeting criteria for inclusion the year prior were used as the control group. Outcome measures included length of stay (LOS), emergency department (ED) visits within 30 days, and the change in patients primary residence after surgery.

Results: There were a total of 45 patients in the intervention group and 57 patients in the control group. The average age of patients was 75.1 (± 6.31 SD) in the control group and 76.5 (± 7.42 SD) in the intervention group. Differences in mean patient age, charlson comorbidity score, and types of procedures were not statistically significant between groups. The intervention group had a shorter mean LOS (6.47 \pm 3.57 days) vs (4.44 \pm 2.54 days) (p -value <0.01) and decreased 30-day ED visits (26.32% vs. 16.28%, p -value=0.03). Patients in the intervention group were more likely to be discharged to their preoperative place of residence compared to the control group (55.56% control vs. 36.59% intervention, p -value=0.03).

Conclusion: Implementation of the ACS GSV program in older adults undergoing major oncologic abdominal surgery was associated with shorter LOS, less 30-day ED visits, and patients being more likely to return to their primary place of residence.

B148 Student Presentation

Time to Benefit of Intensive Glycemic Control for Prevention of Cardiovascular Outcomes in Older Adults with Type 2 Diabetes Mellitus: A Survival Meta-analysis

B. T. Nguyen,¹ I. Cenzer,² S. Lee.^{2,3} 1. *School of Medicine, University of California Davis, Davis, CA;* 2. *Division of Geriatrics, Department of Medicine, University of California San Francisco, San Francisco, CA;* 3. *Geriatrics, Palliative, and Extended Care Service Line, San Francisco VA Health Care System, San Francisco, CA.*

Background

Glycemic control in older adults may decrease risk of major adverse cardiovascular events (MACE), such as myocardial infarction (MI), stroke, and cardiovascular (CV) death, but may also increase risk of harms such as hypoglycemia and falls. Guidelines recommend targeting preventive interventions with immediate harms and delayed benefits to patients with life expectancies exceeding the intervention's time to benefit (TTB). Our objective was to estimate a meta-analyzed TTB to prevent a MACE after initiation of more intensive glycemic control in adults aged ≥ 60 years.

Methods

Studies were identified from a previously published 2013 Cochrane systematic review and a search of OVID MEDLINE, EMBASE, CINAHL, Web of Science, and Google Scholar for subsequent publications until July 1, 2023. We abstracted data from randomized controlled trials comparing standard glycemic control to more intensive treatment groups in older adults (mean age ≥ 60 years). We fit Weibull survival curves and used a random-effects model to estimate the pooled annual absolute risk reduction (ARR) between intensive and standard control groups. We applied Markov chain Monte Carlo methods to determine the time to ARR thresholds (0.0005, 0.001, and 0.002) for a first MACE.

Results

Five trials ($n = 30,314$) were identified. The mean age ranged from 60 to 66 years and study median follow-up times ranged from 2.3 to 5.6 years. None of the studies showed that intensive glycemic control decreased risk of MACE. Our meta-analysis suggests that 3.0 (95% CI: 1.1 – 7.5+) years were required to prevent 1 MACE for 500 persons (ARR = 0.002) receiving more intensive glucose-lowering treatment, whereas the TTB to avoid 1 MACE for 1000 persons treated (ARR = 0.001) was 2.5 (95% CI: 0.7 – 7.5+) years.

Conclusions

More intensive glycemic treatment in 500 older adults prevents 1 MACE after 3.0 years. Given that no studies showed reduced risk of MACE with more intensive glycemic control, our TTB estimates confirm that the MACE benefits of intensive glycemic control are small, requiring the treatment of many older adults for an extended period of time.

B149 Student Presentation, Encore Presentation
The Economic Viability of Surgeon-Initiated Osteoporosis Screening and Treatment in Preventing Fracture in Total Joint Arthroplasty: A Break-Even Analysis

A. Zhao,² A. Agarwal,² A. Cheung,¹ C. McDaniel,³ A. Harris,³ R. Ranson,³ G. Golladay,⁴ S. Thakkar.³ 1. *John A Burns School of Medicine, University of Hawai'i at Manoa, Honolulu, HI*; 2. *The George Washington University Hospital, Washington, DC*; 3. *The Johns Hopkins University School of Medicine, Baltimore, MD*; 4. *Virginia Commonwealth University, Richmond, VA*.

Introduction: Periprosthetic (PPF) and osteoporotic fragility fractures following total joint arthroplasty (TJA) are associated with high patient morbidity and increasing economic burden. Orthopaedic surgeons can potentially help decrease fracture rates by screening and treating at-risk patients for osteoporosis, but it is unknown whether this would be economically feasible. Therefore, the aim of this study was to determine the incidence rates at which osteoporosis screening and treatment would be economically viable in preventing fractures in patients undergoing elective TJA.

Methods: The costs of dual-energy x-ray absorptiometry (DEXA) screening, three-year treatment with osteoporosis medications, management of PPF and fragility fractures, and rates of fracture in high-risk patients following TJA were obtained from peer-reviewed literature used to perform a break-even analysis. The absolute risk reduction (ARR) related to osteoporosis screening and treatment and sensitivity analyses were used to evaluate the cost-effectiveness of the intervention.

Results: Break-even analysis demonstrated that osteoporosis screening and treatment with first-line bisphosphonates is economically viable for fracture prophylaxis if they prevent 1 in 153 PPFs following THA (ARR 0.007%), 1 in 162 PPFs following TKA (ARR 0.006%), and 1 in 64 fragility fractures following TJA (ARR 0.021%).

Conclusion: Surgeon-initiated routine osteoporosis screening and treatment is potentially economically viable in reducing fracture risk following TJA, given our study's ARR projections. As osteoporosis pharmacotherapy has been shown efficacious, treatment of

osteoporosis in patients undergoing TJA may provide orthopaedic surgeons a unique opportunity to address the osteoporosis epidemic and significantly improve outcomes following TJA.

B150
Postoperative Ambulation Recovery of Older Adults with Impaired Cognition Undergoing Major Operations

T. Robinson,¹ J. Stevens-Lapsley,³ J. Rove,¹ T. S. Jones.² 1. *University of Colorado Anschutz Medical Campus School of Medicine, Aurora, CO*; 2. *VA Eastern Colorado Health Care System, Aurora, CO*; 3. *University of Colorado Anschutz Medical Campus, Aurora, CO*.

Background:

Cognitive impairment is an under-recognized pre-op risk factor. Recovery of pre-op ambulation 1-month after surgery is an important patient-centered outcome. The purpose of this study was to define the 1-month ambulation recovery (steps/day) of older adults with and without cognitive impairment following major abdominal operations.

Methods:

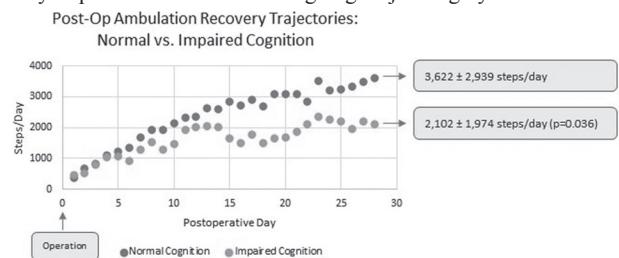
Patients ≥ 60 years undergoing inpatient elective abdominal operations had their cognition screened. Patients with a pre-op Mini-Cog score < 3 screened positive for cognitive impairment. Daily ambulation (steps/day) was measured with an accelerometer. Pre-op steps were recorded for ≥ 3 full calendar days. Post-op daily steps were recorded for at least 28-days.

Results:

Participants were 109 older adults aged 70 ± 5 years. Cognitive impairment was present in 17%. Prior to the elective operation, baseline ambulation levels were lower in the cognitively impaired group ($3,764 \pm 2,726$ steps/day) in comparison to the normal cognition group ($5,998 \pm 3,214$; $p=0.006$). At 4-weeks post-op, cognitively impaired older adults walked $2,102 \pm 1,974$ steps/day which was 45% less than their pre-op baseline level of $3,812 \pm 2,139$ steps/day ($p=0.002$), and also less in comparison to the normal cognition group ($3,622 \pm 2,939$ steps/day; $p=0.036$).

Conclusions:

Pre-op cognitive impairment is an important risk for failure to recover to baseline, pre-op levels of ambulation. Cognitively impaired older adults walked around half of their pre-op daily ambulation level 4-weeks post-op. These data suggest that deliberate clinical efforts should be directed to enhance post-op ambulation recovery in cognitively impaired older adults undergoing major surgery.



B151 Student Presentation
A Novel Approach to Frailty using a CGA-derived Spider Plot
 D. Cavanaugh,¹ S. Holt,² E. Peterson,³ S. Jannat,² J. Wright,² J. Gore,² G. Schade,² S. Psutka.² 1. *Icahn School of Medicine at Mount Sinai, New York, NY*; 2. *Urology, University of Washington, Seattle, WA*; 3. *University of Washington School of Medicine, Seattle, WA*.

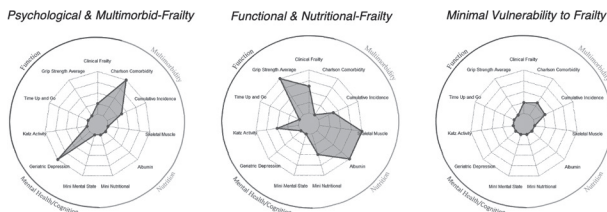
Background: Frailty predicts increased complications and mortality in bladder cancer. Measuring frailty is challenging because using one frailty instrument risks oversimplifying patients' multidimensional vulnerabilities. Guidelines endorse a Comprehensive Geriatric Assessment (CGA) to quantify frailty across domains of physical function, mental health/cognition, nutrition, and multimorbidity.

However, CGAs provide extensive data challenging to integrate into clinical practice. We propose a novel CGA-derived Frailty Spider Plot to synthesize identified vulnerabilities into a clinically useful frailty profile.

Methods: Urothelial cancer patients, prospectively enrolled (9/2020-7/2021), completed CGAs with validated assessments of function, multimorbidity, nutrition, cognition, and mental health, augmented with CT-derived muscle mass and adiposity measurements. Spearman Correlation Coefficients quantified relationships of frailty domains. Spider plots visually depicted CGA instruments grouped by domain as the plot spokes. Validated thresholds determined nodes. Outer ring values indicated greater frailty.

Results: 78% of the 67 patient cohort (median age 71, 16% female) had muscle-invasive bladder cancer. CGAs identified key vulnerabilities beyond a standard risk assessment: 31% vulnerable-to-moderately frail, 24% at risk for falls, 21% with mild-severe depression, 3% with mild-moderate dementia, 34% at risk for malnutrition, and 6% malnourished. Most frailty measures had weak correlations ($\rho < 0.5$). Individuals' specific risk profiles were plotted on Spider Plots.

Conclusions: In this prospective observational cohort, CGAs identified key vulnerability profiles. Notably, instruments had low correlations, highlighting the discrete data provided across the multi-dimensional assessment. Our novel Spider Plot approach visually consolidates this vast data into a single depiction of the key actionable components of frailty to inform personalized prehabilitation interventions.



B152 Encore Presentation
Anticholinergic Burden in Patients With Overactive Bladder and Association With Health Outcomes: A Retrospective Claims Analysis

H. E. Richter,¹ B. Chastek,² A. Carrera,³ C. Landis,² D. Snyder,³ L. Abedinzadeh,³ T. Bancroft,² J. Nesheim,³ R. Dmochowski,⁴ A. Hijaz,⁵ J. Frankel.⁶ 1. University of Alabama at Birmingham, Birmingham, AL; 2. Optum, Eden Prairie, MN; 3. Summito Pharma America, Marlborough, MA; 4. Vanderbilt University Medical Center, Nashville, TN; 5. UH Cleveland Medical Center, Cleveland, OH; 6. Seattle Urology Research Center, Seattle, WA.

Background: Increasing anticholinergic burden (ACB), especially in older adults, may be associated with increased risk of adverse outcomes. The contribution of overactive bladder (OAB) anticholinergic medications (ACHs) to total ACB and the association of time-varying total ACB with health outcomes was quantified.

Methods: This retrospective study used medical and pharmacy claims data from the Optum Research Database identifying adults with ≥ 1 pharmacy claim for ≥ 1 of 6 OAB ACHs from Jan 2010–Nov 2021 and continuous health plan enrollment with pharmacy and medical benefits ≥ 6 mo preindex (baseline) and postindex. Daily ACB was calculated using burden scores (based on established burden values and quantity received per ACH) and dose over the previous 180 days and categorized (0 to ≥ 4 points/d). Mean ratio of OAB ACB to total ACB over follow-up was calculated. Adverse health outcomes included urinary tract infection (UTI), incontinence-associated dermatitis, urinary retention, delirium/drowsiness, cognitive impairment, falls/fractures, cardiovascular (CV) events, and mortality. A time-varying cox proportional hazard model analyzed association between postindex event risk and ACB.

Results: In total, 428,142 patients were identified. Mean age was 65.2 years; 66.7% were female. Mean (SD) baseline ACB was 0.53 (1.44), and mean (SD) follow-up was 1096 (862) days. Overall, 61% of ACB was attributable to OAB medications. Adjusted hazard ratios (HR) for UTI, urinary retention, delirium/drowsiness, cognitive impairment, fall/fractures, and CV events were >1 for all ACB categories (vs 0 points/day) and increased with ACB. Cognitive impairment had the highest association with ACB (HR range, 1.182–1.551) followed by urinary retention (1.160–1.470), CV events (1.150–1.351), falls/fractures (1.129–1.366), UTI (1.060–1.264), and delirium/drowsiness (1.077–1.190).

Conclusions: An association between increased ACB and greater risk of adverse health outcomes was noted. In patients treated with OAB ACHs, OAB ACHs are a major contributor to patient total ACB.

B153
Ceiling Effect of Standard Frailty Score in Real-world Population of Older Adults with Cancer

C. T. Williams,^{1,2} C. Yildirim,² J. Driver,² N. Fillmore,² C. Dumontier.² 1. Gerontology, Harvard Medical School, Boston, MA; 2. VA Boston Healthcare System Jamaica Plain Campus, Boston, MA.

Background: The International Myeloma Working Group Frailty Score (IMWG-FS)—the accepted standard for assessing older adults with multiple myeloma (MM)—is calculated based on age, comorbidity (Charlson Comorbidity Index [CCI]), and functional status (ADLs/IADLs), and its scoring and cut points were developed in pooled clinical trial populations with median age 74 and over 80% having CCI < 2 and < 2 IADL dependencies. We evaluated the ability of the IMWG-FS to stratify frailty in older U.S. veterans with MM and other cancers.

Methods: We retrospectively analyzed veterans seen in the VA Boston Geriatric Oncology Clinic from 2/16/2019 – 9/6/2023. The IMWG-FS, CGA-FI (Comprehensive Geriatric Assessment Frailty Index), and electronic VA-FI (Veterans Affairs Frailty Index) were calculated for each patient based on documented geriatric assessments, electronic health record data, and diagnostic and procedural codes. Established categories for the IMWG-FS were fit (0), intermediate fitness (1), and frail (≥ 2); CGA-FI: fit (< 0.25), mild-moderate frailty (0.25 – 0.45), and severely frail (> 0.45); VA-FI: fit (< 0.2), mild-moderate frailty (0.2 – 0.4), and severe frailty (> 0.4).

Results: We identified 110 veterans assessed in the clinic during the study period: median age 80, 51% MM, 32% other blood cancers, 0% with CCI < 2 , and 47% with < 2 IADL dependencies. The prevalence and classification of frailty varied across measures, with the IMWG-FS saturating all veterans in the intermediate (51 [46.4%]) and frail categories (59 [53.6%]). In contrast, more balanced distributions across frailty levels were observed with the CGA-FI and VA-FI. Based on age > 75 , 82 [75%] veterans could not be classified as fit and 55 [50%] veterans were classified as frail based solely on age > 80 .

Conclusions: Our results suggest that the IMWG-FS misclassifies a substantial proportion of older veterans with MM and other cancers seen in our geriatric oncology clinic toward higher levels of frailty, largely based on age alone. This ceiling effect of the IMWG-FS urges caution when generalizing trial-derived frailty scores to real-world clinic populations.

Frailty Index	Fit/Non-Frail (n,%)	Intermediate Fitness/Frailty (n, %)	Non-Fit/Frail (n, %)
IMWG-FS	0, 0%	51, 46.4%	59, 53.6%
VA-FI	23, 20.9%	50, 45.5%	37, 33.6%
CGA-FI	47, 42.7%	40, 36.4%	23, 20.9%

B154 Student Presentation

Association of visit-to-visit fasting glucose variability with rate of bone mineral density loss in postmenopausal women: results from the Study of Women’s Health Across the Nation (SWAN)

S. Yee,¹ A. Karlamangal,² A. Shieh.² 1. *The University of Arizona College of Medicine Tucson, Tucson, AZ*; 2. *University of California Los Angeles, Los Angeles, CA*.

Background: Glycemic variability (GV) is associated with microvascular complications, independent of blood glucose level. Whether GV is detrimental to bone mineral density (BMD) decline is uncertain. This analysis examined the longitudinal association of visit-to-visit fasting GV with contemporaneous rate of BMD change in postmenopausal women.

Methods: We used data from the Study of Women’s Health Across the Nation (SWAN), an ongoing, US-based, multicenter, longitudinal study of the menopause transition. This analysis included SWAN participants with ≥ 2 visits in postmenopause with fasting blood glucose (FBG) and BMD data. Participants were censored at first use of diabetes and bone-beneficial medications. We estimated GV as the standard deviation (SD) of all FBG measurements in postmenopause. Rates of lumbar spine (LS) and femoral neck (FN) BMD change were calculated as the percentage change in BMD from the first to last visits in postmenopause, divided by the number of intervening years. We used multivariable linear regression to examine the association of GV with rate of LS or FN BMD change. Covariates were age and cigarette use at the first postmenopausal visit; average body weight, average FBG level and use of bone-detrimental medications in postmenopause; race/ethnicity; and study site.

Results: This analysis included 639 women. Mean age at the first postmenopausal visit was 55 years. Average FBG levels across all postmenopausal visits was 91.6 mg/dL. The mean SD of all FBG values was 6.1 mg/dL. Average rates of BMD change in postmenopause were -0.8% and -0.6% per year at the FN and LS, respectively. In multivariable linear regression, greater GV was associated with faster BMD decline at the FN, but not the LS. Specifically, each doubling in the SD of postmenopausal FBG was associated with 0.14% and 0.08% per year faster declines in FN ($p=0.007$) and LS ($p=0.1$) BMD, respectively.

Conclusions: In a US-based sample of ambulatory women, greater GV in postmenopause was associated with faster decrease in FN BMD, independent of average blood glucose level. Future studies can examine the mechanisms by which GV contributes to bone loss, and whether greater GV is a risk factor for fractures.

B155 Student Presentation

Precipitants and Outcomes of Psychiatric Hospitalizations for Persons with Dementia

A. S. Endo,¹ D. R. Lee,² M. Turner,² I. A. Jimenez,² K. S. Serrano,² D. B. Reuben.² 1. *The University of Arizona College of Medicine Tucson, Tucson, AZ*; 2. *Multicampus Program in Geriatric Medicine and Gerontology, University of California Los Angeles, Los Angeles, CA*.

Background: Behavioral and psychological symptoms such as agitation, mood changes, and psychosis are common among persons living with dementia, and tend to worsen at more advanced stages, sometimes requiring psychiatric hospitalizations. In this study, we examined precipitating factors and outcomes related to psychiatric hospitalizations for participants of the UCLA Alzheimer’s and Dementia Care (ADC) Program.

Methods: This retrospective study examined participants enrolled in the ADC Program between 2012 and 2023 who were admitted to the UCLA Neuropsychiatric Hospital. Medical records were reviewed to collect patient baseline data at time of ADC enrollment, living situation prior to admission and at discharge, precipitating events for admission, lengths of stay (LOS), and documentation of urinary tract infection (UTI) and treatment. Bivariate analysis was performed for living situation at admission and discharge.

Results: Of the 3,837 ADC participants, 183 (5%) participants had at least 1 NPH admission; of those, 25% had 2+ admissions. Mean age at the time of hospitalization was 78 years (SD=9, range 54-97). 42% of caregivers were spouses and 41% were children. Mean MMSE prior to admission was 17 (SD=8, range 0-29). The most common precipitating events for hospitalization were agitation (66%), psychotic symptoms (42%), and risk of harm to self or others (35%). 41% of patients had outpatient psychiatrist visits 2-52 weeks prior to admission. 33% of hospitalized participants were treated for a UTI, with 40% having documentation of psychiatric symptoms improvement after treatment. Mean LOS was 17 days (SD=12). Discharge locations differed significantly from admission locations with increases to higher levels of care.

Conclusions: Agitation was the most common precipitating event for admission, suggesting an avenue for further improvement in mitigation strategies. Most patients were admitted from home, but were more frequently discharged to an increased level of care. These findings support the need for further development of early interventions to avoid psychiatric admissions, reduce LOS, and enable patients to return to their prior living arrangements.

Location	Admission	Discharge	p-value
Home	65%	40%	$p<.001$
ALF, B&C, Memory Care	22%	36%	
Nursing Home	7%	12%	

B156 Student Presentation

Predicting development of frailty among middle-aged and older adults using machine learning

J. Ellen,¹ K. Maniar,³ A. Schwartz,^{1,2} M. Viola.¹ 1. *Harvard Medical School, Boston, MA*; 2. *Boston VA, Boston, MA*; 3. *Stanford University, Stanford, CA*.

Background: Frailty is a geriatric syndrome associated with poor health outcomes. Many efforts to predict frailty using machine learning have relied upon data rarely collected in routine clinical practice, limiting the utility of these models and their integration into electronic medical records (EMR). We sought to develop a machine learning model that could longitudinally predict new development of frailty only using data likely to be collected in routine care.

Methods: We used data from Waves 1 (2004) and 2 (2006/2007) of the Survey of Health, Aging, and Retirement in Europe (SHARE). Binary frailty status (e.g., frail versus pre-frail or not frail) was measured at baseline and follow-up using the SHARE-FI, an instrument approximating Fried’s biological definition of frailty. We limited feature selection to variables in the baseline SHARE dataset likely to be available in an EMR (Table 1). We then used these variables to train an artificial neural network binary classifier to predict development of frailty at follow-up using an 80/20 training to testing data ratio with upsampling of training data to address class imbalance.

Results: After excluding individuals who were frail at baseline, missing follow-up data, or with follow-up in less than 1 year or greater than 4 years, our sample consisted of 16,979 adults (mean age=62.4, SD=9.5, 53.5% female) with mean time to follow-up of 29 months (SD=6 months). There were 533 new cases of frailty at follow-up (3.1% incidence rate). Averaged across 5 random test-train splits, our model correctly identified most new cases of frailty (AUC=0.82, SD=0.01; sensitivity=74%, SD=4%; specificity=77%, SD=2%; accuracy=77%, SD=2%) though had limited positive predictive value (PPV=9.3%).

Conclusions: Our model accurately predicted most new cases of frailty, albeit with frequent false positives in the setting of low case prevalence. Though limited by sample generalizability and lack of detailed medical record data, our preliminary work suggests that data similar to what is commonly recorded in EMRs may have potential to predict future biological frailty, which could assist health systems in identifying and supplementing care for high-risk patients.

Table 1: Predictor variables used in machine learning model

Biological data: Age, sex, height, weight, BMI
Social history: History of daily smoking, number of drinking days per week, nursing home residency status
Past medical history: Any hospitalization in the past year, any surgery in the past year, history of myocardial infarction, hypertension, hyperlipidemia, stroke, diabetes, chronic lung disease, asthma, arthritis, osteoporosis, cancer, GI ulcer, Parkinson disease, cataracts, hip or femoral fracture, depression, or other condition
Medication: Medication use for each of the above diagnoses, plus medication use for pain or insomnia

B157

Frailty Status and Quality of Life in Prostate Cancer Patients undergoing Androgen Deprivation Therapy

S. d. Jaramillo-Quiroz,^{1,2} L. J. Anderson,^{1,2} J. M. Garcia.^{1,2}

1. Gerontology and Geriatrics, University of Washington, Seattle, WA;

2. GRECC, Veteran Affairs Puget Sound Health Care System, Seattle, WA.

Background: Androgen Deprivation Therapy (ADT) is the standard treatment for advanced prostate cancer (PCa), but it also decreases muscle mass, function, and Quality of life (QoL). Frailty is a syndrome characterized by a decrease in physical function leading to enhanced vulnerability to adverse health outcomes. The impact of ADT on frailty in PCa patients is not well characterized.

Methods: A longitudinal, 6-month observational study recruited men with (PCa) starting ADT (n= 60, mean age 69, 33% underrepresented minorities). Body weight history, grip strength, walking speed (6-minute walk test), exhaustion (FACTP-Physical Well Being [PWB]) and physical activity (actigraphy) were assessed before, 3, and 6 months after starting ADT. Prefrailty was defined by 1 or 2 and frailty by 3 or more positive measures using a modified phenotype criteria by Fried. QoL was assessed by FACTP and EORTC QLQ-C30. Analysis of variance between frailty status and QoL scores was performed using one-way ANOVA and Tukey’s post-hoc test.

Results: At baseline, the prevalence of frailty was 10%, and of prefrailty 34%. At 6 months the prevalence of frailty was 20%, and of prefrailty 46% (χ^2 : 0.087). At baseline, QLQ-C 30, physical and role functioning were higher (p=0.006 and 0.008) while pain and dyspnea were lower (p=0.03 and 0.02) in robust patients compared to frail. At 6 months, FACTP-Functional Well Being (FWB) and total scores (p=0.001 and 0.04) were better in robust patients compared to frail. Moreover, QLQ-C30 physical, role, and cognitive functioning (p=<0.001, 0.008, and 0.02) were better in robust patients compared to frail. In addition, robust patients experienced less fatigue, nausea, appetite loss, constipation, and diarrhea (p= 0.01, 0.007, 0.007, 0.03, and 0.05) when compared to frail.

Conclusions: Our study population showed a trend to increase their level of frailty upon starting ADT. Moreover, frailty status was associated with worse QoL scores. These findings highlight the need to assess frailty in PCa patients throughout their oncologic journey.

B158

Grasping the risk: handgrip strength as a predictor of delirium in hospitalized older adults.

T. J. Avelino-Silva,^{2,1} J. A. Fonseca,² C. Szejf.³ 1. University of California San Francisco, San Francisco, CA; 2. Universidade de Sao Paulo, Sao Paulo, Brazil; 3. Sociedade Beneficente Israelita Brasileira Albert Einstein, Sao Paulo, Brazil.

Background: Delirium is a frequent, yet often preventable, complication in hospitalized older adults, leading to longer hospital stays, increased healthcare costs, and higher mortality rates. Early prediction of delirium is crucial for timely intervention. This study explores the utility of handgrip strength, a simple and objective measure, as a predictor of delirium incidence in this vulnerable population.

Methods: A prospective cohort study was conducted at a tertiary university hospital in São Paulo, Brazil, from August to November 2023, including older adults aged 65 and above. Delirium was assessed daily using the Confusion Assessment Method. Patients with prevalent delirium were excluded. We used an hydraulic dynamometer to measure handgrip strength on admission. Participants were instructed

to exert maximum force using their dominant hand for 5 seconds. This process was repeated three times, with the highest value used for analysis. We employed logistic regression models to examine the association between handgrip strength and delirium incidence, adjusted for age, sex, and handgrip measurement position.

Results: We included 245 participants (mean age=74 years; female=58%). The incidence of delirium was 43%. At baseline, mean handgrip strength was 20kg ±10. Participants who did not develop delirium exhibited a higher mean handgrip strength (22.8kg ±8.1) compared to those who did (16.9kg ±9.9, p<0.001). Each additional kilogram in baseline handgrip strength was associated with a 10% decrease in the odds of delirium (odds ratio [OR]=0.90, 95% confidence interval [95%CI]=0.87-0.94, p<0.001). Furthermore, the logistic regression model including handgrip strength as the primary independent variable demonstrated a moderate predictive value for delirium, with an area under the ROC curve (AUROC) of 0.72 (95%CI=0.66-0.79). Notably, a predictive model limited to age and sex had an AUROC of only 0.57 (95%CI=0.49-0.64).

Conclusion: Handgrip strength upon hospital admission is a promising, feasible, and objective predictor of delirium in older adults. Routine handgrip strength assessment could be instrumental in early identification of patients at higher risk of delirium, enabling timely preventive interventions and potentially improving patient outcomes in this sensitive group.

B159

Association of New-Onset Frailty and Anosmia or Ageusia in Patients with Non-severe COVID-19 Infection

N. M. Resendes,^{1,2} R. Islam,² J. Bradley,² F. Tang,¹ D. Tosi,^{1,2}

I. Hammel.^{1,2} 1. Miami VAHS GRECC, Veterans Health

Administration, Washington, DC; 2. Medicine-Geriatrics and Palliative Medicine, University of Miami Miller School of Medicine, Miami, FL.

Background: Loss of taste (ageusia) and smell (anosmia) are well-established effects of COVID-19 infection which could lead to weight loss and predispose older patients to new onset frailty.

Objectives: To investigate the association of anosmia or ageusia and new-onset frailty in patients with non-severe (mild or moderate) COVID-19 infection.

Methods: Using nationwide VHA data from the VA COVID-19 Shared Data Resource database, we conducted a retrospective cohort study of U.S. Veterans 55 years and older who had a SARS-CoV-2 positive test between 3/15/2020 and 11/30/2020, who were active VHA users, and had a VA Frailty Index (VA-FI) of 0.0 at time of diagnosis (meaning they were “robust”). Patients’ frailty status was followed for 35 months after the infection. We excluded Veterans hospitalized after contracting COVID-19, and who died within the 35-month follow-up. Total number of COVID-19 symptoms counted include Abdominal pain, chills, cold, cough, headache, loss of smell, loss of taste, myalgia, nausea, rhinorrhea, sore throat. Cox proportional hazard model was performed to determine if newly diagnosed frailty status by VA-FI was associated with loss of smell or loss of taste, adjusting for age, BMI, race, ethnicity, gender, smoking, rurality, and the total number of COVID-19 symptoms.

Results: 7561 Veterans aged 55 years and older were included. Mean age was 67.8 years (SD=7.8) with 91.1% (6890) males. 292 (3.9%) patients with mild/moderate COVID-19 infection reported loss of taste, 227 (3.0%) patients reported loss of smell. Ageusia was associated with 114% increase in the hazard of developing frailty (adjusted HR=2.14, 95% CI: 1.13-4.06). Anosmia was not associated with new frailty development.

Conclusion: Our study highlights the association between ageusia and the development of new-onset frailty (by VA-FI) in Veterans with non-severe COVID-19 infection. Further analysis of the cumulative effects of ageusia warrants investigation with focus on the follow-up of vulnerable Veterans with non-severe COVID-19 infection.

B160

Identifying patients who may benefit from deprescribing using machine learning predictions

J. M. Pavon, M. Wei, D. Page, L. Zepel, M. Maciejewski, A. Clark, N. Schindler, S. N. Hastings. *Duke University, Durham, NC.*

Introduction: Benzodiazepines and Z-drugs (benzo/Z-drugs) are known to increase fall risk in older adults, yet many barriers exist to discontinuing these medications. Machine learning (ML) was used to identify patient factors associated with a fall in both discontinuing and non-discontinuing patients, which may identify those most likely to benefit from benzo/Z-drug deprescribing. **Methods:** Retrospective cohort study (2017-2020) of adults ≥ 65 years with chronic benzo/Z-drug use (≥ 3 medication dispensings, or cumulative days' supply ≥ 45 days within 100 days in 2018) at an academic health system. Medication discontinuation was defined as a dispensing gap of ≥ 180 days using electronic health records. Primary outcome: first fall resulting in an acute visit during two-year follow-up post-establishing discontinuation/non-discontinuation status. To predict falls accurately, we estimated a logistic regression model with Lasso and ML Random Forest Decision Trees. Input features included demographics, smoking, BMI, individual comorbidities, chronic condition count, chronic medication count, and duration of prior benzo/Z-drug use. Subsequent Conditional Average Treatment Effect (CATE) analysis identified patient characteristics influencing the degree of benefit from benzo/Z-drug discontinuation in fall prevention. **Results:** Overall, N = 2122; Discontinuers n = 135; Non-discontinuers n = 1987. The logistic regression model with Lasso achieved AUC of 0.74 for predicting falls. Medication discontinuation did not improve model accuracy. In the exploratory ML decision tree model, CATE analysis identified the top two clinical features associated with the effects of benzo/Z-drug discontinuation on falls: chronic condition count and diabetes diagnosis. Falls related acute events between discontinuers and non-discontinuers for the no chronic conditions subgroup (n=761) were, 2.4% vs. 7.2%, p=value 0.08, and for diabetes subgroup (n=341) were, 27.3% vs. 20.4%, p=value 0.58) **Conclusions:** Medication discontinuation was not a contributing factor to fall prediction, but the lack of chronic conditions may have a protective association among discontinuers. Our exploratory analysis offers early insights into patient subgroups who may benefit from deprescribing, informing targeted and personalized clinical interventions.

B161

Antibiotic Use in the Face of COVID-19 versus Influenza

P. Ghai,^{3,1} T. A. Bayer,^{3,2} Z. Buchalski,² M. Singh,^{1,3} A. Rajan,^{3,1} S. Raza,^{3,1} M. Quarella,^{3,1} M. Gold,^{3,1} V. Sirpal,^{3,1} R. Kaler,⁴ J. Abi Chebl,⁴ F. Devone,² A. Nanda,^{3,1} R. Tyagi,^{3,1} S. Gravenstein,^{3,2} Y. Abul.^{3,2} *1. Brown University, Providence, RI; 2. VA Providence Healthcare System Center of Innovation in Long Term Services and Supports, Providence, RI; 3. Division of Geriatric and Palliative Medicine, Brown University Warren Alpert Medical School, Providence, RI; 4. Geriatrics, Roger Williams Medical Center, Providence, RI.*

Background: Empiric antibiotic therapy and prescription practice is an important subject, particularly in epidemic and pandemic periods including influenza and COVID-19. Clinical presentation of COVID-19 and influenza could mimic bacterial pneumonia, tempting empiric antibiotic prescribing despite laboratory confirmation of a viral pathogen. We hypothesized that antibiotics were more likely to be administered to residents with laboratory confirmed influenza than in SARS-CoV-2 infection.

Methods: For this retrospective cohort study, we included Veterans living in VA community living centers (CLCs) with either a confirmatory influenza PCR test or a confirmatory COVID PCR test between January 2021 and January 2023. We examined whether at least one dose of antibiotics commonly used in pneumonia was administered 48 to 72 hours after a confirmed PCR test.

Results: This study included 7477 residents with a mean age of 73.25 and 3.4% (n = 98) female. Among the 7018 residents infected with SARS-CoV-2 infection, 338 received antibiotics (4.8%). Among the 459 residents with influenza infection, 58 received antibiotics (12.6%) [RR:0.38, 95% CI:0.3 to 0.5]. Residents with confirmed SARS-CoV-2 infection had approximately two-thirds lower likelihood of getting antibiotics than those with confirmed influenza.

Conclusion: We found that antibiotics were more likely administered in residents with confirmed influenza than SARS-CoV-2 infection, even though both have effective antiviral treatments available. We do not know which factors drove these differences, such as national guidelines created by the WHO and NICE organizations that strongly promoted antibiotic stewardship during the early COVID-19 pandemic period, greater clinical severity or later testing of residents with confirmed influenza compared to COVID-19. Further investigation is needed to disentangle potential drivers for better stewardship.

B162 Student Presentation

“A new world in the palm of their hands”: Health Technology Navigators share lessons on digital health among older, non-English speaking patients in the LA safety net

K. Wang,¹ A. Hernandez,² V. Penate,³ A. Abhat,³ A. Casillas.² *1. University of Rochester School of Medicine and Dentistry, Rochester, NY; 2. University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA; 3. Los Angeles County Department of Health Services, Los Angeles, CA.*

Introduction

With the rise in digital health utilization, there is an increasing digital divide for patients who are older, non-English speaking, and have socioeconomic barriers. In safety net health systems, there is a high percentage of patients who are non-English speaking and have low-income. LA County Department of Health Services is the first safety net system, to our knowledge, to implement a digital health navigation program. These health tech navigators are community health workers who help patients enroll in and use the online patient portal. There are currently no studies on health tech navigation for older, non-English speaking adults in the safety net.

Methods

We conducted Zoom interviews with 11 navigators on their experiences working with older adults (50+ years of age) who do not speak English and the barriers these patients face using the portal. We coded themes in each interview transcript with Dedoose.

Results

The navigators consisted of 9 women and 2 men, are fluent in English and Spanish, and work across 9 clinic sites. We identified 5 themes from the interview transcripts (Table 1).

Conclusion

We found that older patients who are non-English speaking are often interested in learning to use digital tools and having “someone with patience” teach them. Barriers included accessing email accounts, fear of the internet, and phone storage. The navigators are effective in their role because they draw on their lived experiences to connect with patients from their communities and beyond. Our findings will inform the design of future health tech navigation programs at safety net hospitals.

Themes	Description	Illustrative Quote
1. Characteristics of a successful health tech navigator	Traits that are crucial for a health tech navigator's role and daily job	
1a. Subtheme: From the very communities that they serve	Lived experiences that help them connect with patients from their community	"We also remind the patients of their children, of their grandchildren, and again, we're speaking Spanish, which helps them feel more comfortable with us."
1b. Subtheme: Cultural humility	Connecting with people from all backgrounds	"I would go to my grandma's house after school, and we'd go out and people wouldn't be able to help her in Spanish. And it bothered me... so it definitely motivates me to try to connect with every patient I can, regardless of whatever language they speak."
1c. Subtheme: Patience	Taking the time to teach patients step-by-step how to use digital tools and the portal	"Reassuring them, telling them, 'No, it's okay. Try it as many times as you can. Log in by yourself. See if you can do it.' And so I feel like they really appreciate that because they don't get that a lot, especially—they say, oh, my grandkids will just be like, 'Let me just do it.' So that's why she's like, 'I'm so thankful that you're like taking your time.'"
1d. Subtheme: Beyond the portal	Assisting patients with tasks beyond the portal	"Because I'm out there in the lobby with the patients, they automatically come to me for everything when it comes to translation... I'll start off by helping them with the portal, and then they'll feel comfortable enough to come back to me and ask me for additional resources... because [I] speak Spanish."
2. Innovative problem solving to address barriers this patient population faces using the portal	Successful strategies that navigators use to help this patient population learn to use the portal	"We have the handouts in Spanish, and I'll just highlight the buttons they're supposed to push, and then I will explain everything... I'll teach them how to sign in. I go over all the steps and I'll have them do it by themselves, just to make sure that they got it..."
3. Patient experiences with the portal and digital tools	Patient experience with the portal	
3a. Subtheme: Benefits of the portal	Ways that the portal improves the quality of care and saves time for this patient population	"Being able to like renew prescriptions... Like I said, a lot of them have to come by bus, or they're walking, or they have to take off a day of work just to come here, so it makes it so much easier if they can renew their prescriptions online and not have to come over here, not have to be on the phone for like 30 minutes just to get to talk to somebody. I just feel like it's really important in that sense. It makes it way more accessible and will make their lives a lot easier."
3b. Subtheme: Interest in the portal and digital tools	Older patients being interested in learning to use digital tools and the portal	"If you just take the time to explain things to them and they see how easy it is by doing it, then they can catch on."
3c. Subtheme: Technical challenges enrolling into the portal	Difficulties that this patient population faces when initially setting up the portal	"So one for sure is the not knowing how to navigate the phone in general because if they don't know where their email is, or they don't know how to really open an email, that kind of will slow them down because you do need to know how to use your email just for that initial invite."
3d. Subtheme: Stigma surrounding this patient population using digital tools	Assumptions that older patients do not want to or cannot learn to use digital tools	"Sometimes [people]... have the assumption... 'They're [older], they don't know how to use their phone.'"
3e. Subtheme: Fear of the internet	Fear of using the internet	"They think that their information is unsafe once they log into their portal. They're scared if they lose their phone or something, or somebody hacks them or their email."
4. Systemic and structural barriers in clinic	Challenges in clinic that interfere with enrollment	"A lot of the [clinic] staff... don't ask the patient whether they want the portal, so they'll just [click that the patient] declined [the portal]."

B163 Student Presentation

"I just don't think they give you enough": Defining High-Quality Post-Diagnosis Dementia Care in Primary Care

E. M. Kelly,¹ M. Blinka,² O. Oniha,³ E. Angomas,² M. McGuire,² C. Boyd,² Q. Samus,² H. Amjad.² 1. University of Cincinnati, Cincinnati, OH; 2. Johns Hopkins University, Baltimore, MD; 3. University of Maryland Baltimore, Baltimore, MD.

Background

Quality of care for dementia in primary care is variable and often focuses on advanced disease stages. Emerging health system and policy changes create opportunity to improve dementia care upon diagnosis. Our objective was to identify multidisciplinary primary care, persons living with dementia (PLWD), and caregiver perspectives on core components of high-quality post-diagnosis dementia care.

Methods

Participants were recruited from 23 community primary care practices in a Maryland health system using maximum variation sampling to ensure diversity of race/ethnicity, location, and percentage of older adults served. We conducted semi-structured interviews on dementia care with 28 primary care providers (PCPs) and multidisciplinary staff and 15 PLWD and/or caregivers. We coded and analyzed interview transcripts using content analysis methods to identify major themes.

Results

We identified 3 themes defining high-quality, post-diagnosis dementia care in primary care. (1) *Building and supporting a care team*: The team centers the PLWD and caregiver and should include PCPs, multidisciplinary staff, and, where involved, specialists. Most team members need dementia education, training, and support to optimize their role in dementia care. (2) *Comprehensive care plan and roadmap*: Participants appreciated the need to address domains

included in dementia care guidelines (e.g., cognitive, behavioral, and functional assessment) but also identified other topics including medication and non-medication treatment, fall risk, and information on what to expect. (3) *Compassionate family-centered care*: PLWD/caregivers felt honesty and familiarity were important in care. Including the PLWD, caregiver, and their respective needs without judgment was valued. Positive framing and PCP/staff sensitivity enhanced care.

Conclusions

High-quality post-diagnosis dementia care includes building and supporting a care team, comprehensive information on what to do and expect, and compassionate, positive care delivery. Shifts to team-based primary care and new Medicare initiatives align with key components of high-quality dementia care.

B164 Student Presentation

Early Dementia Care Through the Patient Portal

E. M. Kelly,¹ A. Wee,² S. Nothelle,³ K. Gleason,⁴ J. Wolff,² H. Amjad.³ 1. University of Cincinnati, Cincinnati, OH; 2. Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD; 3. Johns Hopkins University, Baltimore, MD; 4. Johns Hopkins University School of Nursing, Baltimore, MD.

Background

The patient portal is increasingly used by patients and caregivers to communicate with clinicians. Primary care providers (PCPs) and specialists play key roles in dementia care, and the portal offers promising opportunities for improvement in caring for the complexities of dementia. Our objective was to identify the most common dementia-related needs expressed in portal messages by patients or caregivers to PCPs and dementia specialists in the first year after dementia diagnosis.

Methods

We analyzed medical advice portal messages of patients aged 65 or older in the first 12 months after a dementia diagnosis sent from patients or caregivers to PCPs or dementia specialists (geriatrics, neurology, geriatric psychiatry) in the Johns Hopkins Health System from October 2021-22. Message threads were identified and coded by two investigators using qualitative content analysis. Multiple codes could be applied to a single message thread. The codebook was developed using domains of the Johns Hopkins Dementia Care Needs Assessment, expert input, and emerging data.

Results

The sample included 547 message threads involving 137 unique patients. Mean age of patients was 81.4 years, 63.5% were female, and 72.6% were white. 19% of all threads mentioned dementia-related symptoms, within which behavioral (45.2%), cognitive (44.2%), and other symptoms such as incontinence or sleep issues (43.3%) were common. 29.6% of threads involved medications, 17.9% of which mentioned dementia medications and 34.6% psychiatric medications. Other dementia-related issues included level of care needs (16.6% of threads), caregiver-related concerns (8.2%), legal/financial concerns (6.6%), and safety (5.3%).

Conclusions

Dementia care needs are commonly raised through the patient portal among persons recently diagnosed with dementia and their caregivers. Understanding common topics addressed through this medium can inform technology- and portal-based strategies to improve dementia education and care while reducing clinician burden.

B165 Resident Presentation

Model-Projected Estimates of Annual Incident Age-Associated Dementia Cases Attributable to Hearing Loss in the US

E. D. Borre,¹ J. Deleger,¹ L. Dillard,² J. M. Pavon,³ S. Shah,¹ J. Dubno,² S. Smith,³ K. Freedberg,¹ H. Francis,³ C. Ritchie,¹ G. Sanders Schmidler,³ E. Hyle.¹ *1. Massachusetts General Hospital, Boston, MA; 2. Medical University of South Carolina, Charleston, SC; 3. Duke University, Durham, NC.*

Background: Two-thirds of persons age 70+ years have hearing loss (HL), and HL is a leading preventable cause of dementia. We used simulation modeling to estimate the annual number of incident age-associated dementia (AAD) cases attributable to HL in the US.

Methods: We used DeciBHAL, a validated microsimulation model of HL across the lifespan that includes age- and sex-specific annual probabilities of incident HL (0.1-10.4% [NHANES]). After HL onset, hearing thresholds decline (mean, 1 decibel/year). We then incorporated incident AAD (0.3-10.8%) from the Adult Changes in Thought cohort. We estimated HL-independent AAD incidence by removing the estimated proportion attributable to HL (adjusted incidence risk ratio, 2.0 [95% CI, 1.5-2.8] calibrated from NHATS). We projected 2 cohorts: the general US population and a hypothetical US population without HL (counterfactual). We applied model-projected AAD incidence among both cohorts to the 74,299,100 adults older than 60y and without AAD in 2022 from CDC lifetables.

Results: Model-projected incident cases of AAD were 415,000/year (males) and 535,000/year (females) in 2022, which were validated using the Framingham Heart Study. Model-estimated prevalences of HL (M/F) at ages 65, 75, and 85 years were 35.3%/16.3%, 61.0%/41.9%, and 86.6%/75.7%. In the simulation without HL, AAD cases/year fell to 345,000 for males and 475,000 for females. The difference in model-projected cases/year suggests that 133,000 new AAD cases in 2022 were attributable to HL. Results were most sensitive to the AAD incidence risk ratio attributable to HL.

Conclusion: Based on model-projected estimates, prevention of HL could substantially reduce incident AAD dementia cases in the US and should be a priority.

Table 1. Model-projected numbers of incident cases of age-associated dementia in the US attributable to hearing loss by age and sex in 2022.

Age (years)	Male			Female		
	At-risk population	Incident AAD cases (% of at-risk population)	AAD cases attributable to HL (% of all AAD cases)	At-risk population	Incident AAD cases (% of at-risk population)	AAD cases attributable to HL (% of all AAD cases)
60-64	10,405,000	44,000 (0.4)	2,000 (4.5)	11,013,000	35,000 (0.3)	- (<0.1%)
65-69	8,515,000	58,000 (0.7)	5,000 (8.6)	9,542,000	34,000 (0.4)	- (<0.1%)
70-74	6,686,000	66,000 (1.0)	10,000 (15.2)	7,856,000	57,000 (0.7)	4,000 (7.0)
75-79	4,407,000	73,000 (1.7)	15,000 (20.5)	5,620,000	88,000 (1.6)	9,000 (10.2)
80-84	2,384,000	79,000 (3.3)	19,000 (24.1)	3,291,000	108,000 (3.3)	16,000 (14.8)
85+	1,755,000	95,000 (5.4)	22,000 (23.2)	2,826,000	213,000 (7.5)	31,000 (14.6)
Total	34,152,000	415,000 (1.2)	73,000 (17.6)	40,148,000	475,000 (1.3)	60,000 (11.2)

B166 Student Presentation

Characterization of National Institute on Aging-Funded Clinical Trials for Alzheimer’s Disease, 2002-2023

K. M. Shah,¹ B. Jain,² A. Komanduri,³ U. Jain,⁴ R. Shah,⁵ K. A. Schulman.² *1. University of Cambridge, Cambridge, United Kingdom; 2. Stanford University School of Medicine, Stanford, CA; 3. University of Southern California, Los Angeles, CA; 4. University of Pittsburgh, Pittsburgh, PA; 5. Yale University, New Haven, CT.*

Background: Despite the billions of dollars spent on Alzheimer’s disease (AD) research in the United States annually, few promising treatments for the disorder have come to market. The National Institute on Aging (NIA) is a major sponsor of AD research in the US. However, the portfolio of NIA-supported AD clinical trials has yet to be reviewed to better characterize NIA investment strategy. In this study, we developed a database of all NIA-supported AD clinical trials from 2002 to 2023 and evaluated important characteristics of these trials over time.

Methods: We searched for the condition “Alzheimer’s Disease” and all synonyms on ClinicalTrials.gov and filtered results for

interventional studies that began in 2002 or later with the NIA listed as a sponsor or collaborator. We then reviewed trials by intervention and sponsor type. We further reviewed drug-based interventions by research phase and target type, and classified drugs as “novel” or “not novel,” with a novel drug being one with no available generics or one not already prescribed for other disorders.

Results: Our search yielded 322 clinical trials, of which most were behavioral (134/322, 41.6%) or drug-based (113/322, 35.1%). Over the study period, the NIA supported 280 (87.0%) trials led by academic institutions and 42 (13.0%) led by pharmaceutical companies. Of the drug-based interventions, 32 (28.3%), 81 (71.7%), 23 (20.4%), and 9 (8.0%) trials were in phase I, phase II, phase III, and phase IV, respectively (some trials spanned multiple phases). The most common target types for drug trials were amyloid (42/113, 37.2%), neurotransmitters (15/113, 13.3%), and tau (12/113, 10.6%). Overall, only 39/113 (34.5%) drugs addressed novel therapies; by sponsor type, 22 of 27 (81.5%) pharmaceutical company trials and 17 of 86 (20.0%) academic trials were of novel drugs.

Conclusions: Our analysis of NIA-supported AD clinical trials reveals that the most frequently tested interventions were behavioral, followed by pharmacological. For drug studies, most trials were early phase, not novel therapies, and addressed a limited set of drug targets. Such data on the NIA’s research portfolio can help inform strategies for future initiatives by the Institute to address AD.

B167

Incremental Costs of Functional Impairments and Phenotypic Frailty in Specific Healthcare Sectors in Community-Dwelling Older Adults: A Prospective Cohort Study

K. Ensrud,^{1,3} J. T. Schousboe,^{2,1} A. Kats,¹ B. Taylor,^{3,1} C. Boyd,⁴ L. Langsetmo.^{3,1} *1. University of Minnesota Twin Cities, Minneapolis, MN; 2. HealthPartners Institute, Bloomington, MN; 3. Minneapolis VA Medical Center, Minneapolis, MN; 4. Johns Hopkins University, Baltimore, MD.*

Background: Functional impairments and phenotypic frailty are associated with higher subsequent total healthcare expenditures among Medicare beneficiaries, but the independent effects of these domains on costs in specific healthcare sectors are uncertain. Our objective was to determine associations of functional impairments and phenotypic frailty with inpatient, post-acute care (PAC), home healthcare (HHC) and outpatient costs after accounting for multimorbidity and each other.

Methods: 8165 community-dwelling fee-for-service Medicare beneficiaries (4318 women, 3847 men) who had index examinations (2002-2011) in 4 prospective cohort studies linked with Medicare claims. Weighted multimorbidity index (CMS Hierarchical Conditions Categories score) incorporating demographics and number and complexity of conditions derived from claims. Self-reported functional impairments (difficulty performing 4 activities of daily living) and frailty phenotype (operationalized using 5 components) derived from cohort data. Healthcare costs ascertained for 36 months following index examinations.

Results: After adjusting for multimorbidity and each other, average annualized incremental costs (2023 dollars) of 3-4 functional impairments versus no impairment in women (men) were \$2838 (\$516) in the inpatient sector, \$1572 (\$1446) in the PAC sector and \$1349 (\$1060) in the HHC sector; average incremental costs of phenotypic frailty versus robust in women (men) were \$4100 (not significant for men) in the inpatient sector, \$1579 (\$1254) in the PAC sector and \$645 (\$526) in the HHC sector. Incremental inpatient costs were primarily due to an increased risk of hospitalization, while incremental PAC and HHC costs were related to both an increased risk of utilization and higher costs among individuals with utilization. Neither domain was associated with outpatient costs.

Conclusions: Functional impairments are associated with higher subsequent expenditures in inpatient, PAC and HHC sectors among

both sexes, suggesting a cascade of increased costs primarily related to hospitalization. Phenotypic frailty is associated with higher subsequent inpatient costs in women, and higher PAC and HHC costs in both sexes.

B168 Student Presentation, Encore Presentation
Developing an Intervention to Enhance Aging in Place for Formerly Homeless Older Veterans Living in Permanent Supportive Housing

K. Su,^{1,2} M. R. Maitra,^{4,2} A. Peeples,³ O. Goodman,³ R. Brown.^{2,3}
 1. Cornell University, Ithaca, NY; 2. University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 3. Corporal Michael J Crescenz VA Medical Center, Philadelphia, PA; 4. University of Georgia, Athens, GA.

Background: The HUD-VASH (Housing and Urban Development-Veterans Affairs Supported Housing) program provides housing assistance and support to Veterans formerly or at risk of homelessness. HUD-VASH serves an increasing number of older Veterans, with 77% of residents currently aged 50 and older. Although homeless-experienced people have accelerated aging, with premature onset of geriatric conditions and mortality, current HUD-VASH services may not address these conditions and enhance aging in place (i.e., the ability to live comfortably and safely in one's own home and community).

Methods: We conducted a 2-stage study to inform the development of an intervention to promote aging in place in HUD-VASH. First, we completed qualitative interviews with 21 older Veterans living in HUD-VASH and focus groups with 13 staff members to identify promising intervention elements. Second, we used a modified Delphi process with 9 staff and 1 Veteran to reduce a list of 66 intervention elements based on perceived feasibility and importance.

Results: The top-rated intervention elements spanned 5 categories: (1) staffing (by social workers, physicians, nurse practitioners, nurses); (2) focus (on geriatric needs, mental health needs, dementia care, or medication management); (3) modality (in the home or medical center); (4) timing (delivery of the intervention when Veterans are experiencing functional impairment, memory impairment, or mental health problems, having trouble caring for themselves, or new to HUD-VASH); and (5) duration (regularly scheduled or ongoing as needed).

Conclusions: With feedback from expert stakeholders, our findings will be used to develop and implement interventions to improve aging in place for older Veterans living in HUD-VASH.

B169
Wealth Disparities in End-of-Life symptoms Among Older Adults in the US

I. Censer,² K. Covinsky,² M. Aldridge,¹ S. Cross,³ C. Ankuda,¹ L. Hunt,² K. Harrison.² 1. Icahn School of Medicine at Mount Sinai, New York, NY; 2. Division of Geriatrics, University of California San Francisco, San Francisco, CA; 3. Emory University, Atlanta, GA.

Background: Prior research examined health disparities in end-of-life (EOL) outcomes based on race, ethnicity and college education. This study examines wealth-related disparities in EOL symptoms among older adults. Our study aims to: (1) Assess EOL symptom prevalence and associations with wealth; (2) Determine whether the effect of wealth on EOL symptoms is mediated through health or function; (3) Determine whether the effect of wealth on EOL symptoms is modified by hospice or Medicaid enrollment.

Methods: The study included 9,509 Health and Retirement Study (HRS) participants who died between 2000 and 2020 at age 65+. Wealth was measured by RAND household net worth variable at the last core interview before death, categorized into lowest, two middle, and highest quartiles. Ten EOL symptoms were reported by next-of-kin at exit interviews. Our primary outcome was a binary variable indicating presence of 6+ EOL symptoms.

Results: The mean age at death was 81 (SD 9); 55% women, 83% White, and 15% college graduates. Overall, 28% of decedents experienced 6+ EOL symptoms. Those with lowest wealth had the highest likelihood of 6+ EOL symptoms (36% vs. 23%, $p < 0.001$). These differences persisted after adjusting for age, gender, marital status, race or ethnicity, and college education (low-middle wealth: aOR=0.69 (CI: 0.60-0.78); low-high wealth: aOR=0.56 (CI: 0.47-0.65)). Mediation analysis showed that 10% of the effect of wealth is due to worse health, and 41% is due to worse functional status among those with lower wealth. There was no significant difference in the effect of wealth among hospice enrollees. Medicaid enrollment seemed to diminish the difference between low and middle wealth groups (no Medicaid: aOR=0.74 (CI: 0.58-0.95); Medicaid: aOR=0.91 (CI: 0.72-1.14), p for interaction=0.164).

Conclusions: Lower wealth at the end of life is associated with worse EOL symptoms, and a significant proportion of the effect can be explained by worse functional status. Our findings suggest that Medicaid may alleviate wealth-related EOL differences. Further studies are needed to determine if the effects of wealth on EOL symptoms can be mitigated by caregiver support and other programs supporting those experiencing functional decline.

B170 Student Presentation
Hospice medical directors' perspectives on improving care for persons with dementia and their caregivers

A. Tiwari,¹ T. Park,¹ B. Parillon,¹ E. Luth,² Y. Zhang,¹ R. Adelman,¹ C. Reid,¹ V. Phongtankuel.¹ 1. Weill Cornell Medicine, New York, NY; 2. Rutgers The State University of New Jersey, New Brunswick, NJ.

Background: Persons with dementia (PWDs) make up a significant proportion of patients who enroll into hospice care. In 2020, approximately 20% of patients enrolled into hospice care had a terminal dementia diagnosis. This number increases to 45% when combining hospice patients who have either a primary or secondary dementia diagnosis. The objectives of this study were to obtain insights into the unique care needs of PWDs and their caregivers and identify methods to improve hospice services for this patient population and their caregivers.

Methods: Seventeen semi-structured phone interviews with certified hospice medical directors (HMDs) were conducted. Data were analyzed using standard qualitative methods.

Results: In understanding the unique care needs of PWDs and their caregivers, HMDs often noted that this patient base was more difficult to prognosticate for lifespan, harder to care for with disease progression, and more likely to require 24/7 care. Furthermore, HMDs noted that caregiver burnout was common, and that increased resources for home health aide support were necessary to help caregivers. Additionally, HMDs wanted to see increased educational resources for families regarding dementia progression and the expectations for end-of-life care. When asked about specific suggestions to improve care for this patient base and their families, HMDs mentioned eliminating the six-month prognosis requirement and allowing for a longer eligibility period, providing increased caregiver respite care, and enrolling patients based on need rather than expected lifespan.

Conclusions: HMDs provided unique insights into issues that PWDs and their caregivers face and potential opportunities for improving their care. Future studies are needed to explore solutions to these issues to better support PWDs and their caregivers when receiving hospice care.

B171

Hospital-level Disparities in Delivery of Rehabilitation to Older Adults with Acute Respiratory Failure Receiving Mechanical Ventilation

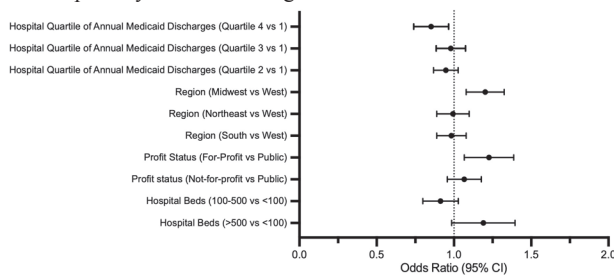
S. Jain,² J. Jimenez Ceja,² L. Zhang,¹ L. Ferrante,² Z. Lin,² H. M. Krumholz,² J. R. Falvey.³ *1. Yale University School of Public Health, New Haven, CT; 2. Yale School of Medicine, New Haven, CT; 3. University of Maryland Medical Center, Baltimore, MD.*

Background: Older adults on Medicare and Medicaid develop greater disability following critical illness than those on Medicare only. Whether hospitals serving a greater number of patients on Medicaid are less likely to provide physical and occupational therapy (PT/OT) that can prevent disability through mobilization and identify post-discharge rehabilitation needs is unknown.

Methods: We used MedPAR Limited Data Set linked with American Hospital Association survey from 2017 to identify hospitalizations among adults ages ≥65 with an ICU stay and ICD-10 codes for acute respiratory failure and mechanical ventilation. The outcome was delivery of PT/OT determined by charges for revenue codes 042x and 043x. We constructed hierarchical multivariable logistic regression models to evaluate the association between PT/OT and hospital-level annual Medicaid discharges (quartiles), with random intercepts for hospitals, adjusting for patient (age, sex, race, comorbidities, organ dysfunction, ICU type) and hospital (profit status, bed size, region, teaching) factors.

Results: Among 211,798 ICU hospitalizations of mechanically ventilated older adults with acute respiratory failure [50.3% were 65-74 years old; 48% female] at 1,600 hospitals [70% teaching; 75% not-for-profit] PT/OT was delivered in 59.6%. Hospitals in the top quartile of annual Medicaid discharges had a 15% lower odds of providing PT/OT compared to those in the bottom quartile (adjusted OR:0.85; 95%CI:0.74,0.97; Figure).

Conclusion: Hospitals serving more patients with Medicaid are less likely to deliver rehabilitation to older adults hospitalized with acute respiratory failure receiving mechanical ventilation.



Association Between Hospital Characteristics and Delivery of Physical and/or Occupational Therapy

B172

Integrating a Claims-Based Frailty Index into the CMS Hierarchical Condition Category Model for Predicting Healthcare Costs

J. Jang,¹ E. Mccarthy,¹ B. Olivieri-Mui,^{2,1} S. Shi,¹ C. Park,¹ D. Ko,¹ S. M. Sison,^{3,1} D. Kim.¹ *1. Hinda and Arthur Marcus Institute for Aging Research, Boston, MA; 2. Northeastern University, Boston, MA; 3. University of Massachusetts Chan Medical School, Worcester, MA.*

Background: The Centers for Medicare and Medicaid Services Hierarchical Condition Category (CMS-HCC) score is a standard risk adjustment tool to predict annualized total Medicare costs. We examined whether a claims-based frailty index (CFI) could enhance the predictive capability of the CMS-HCC score.

Methods: This study analyzed the electronic health records (EHR) and linked Medicare claims data from 58,424 fee-for-service beneficiaries aged ≥65 years who had at least 1 outpatient visit at an academic medical center in January 2017-December 2018. We

calculated the CMS-HCC score and the Kim CFI (range 0-1; higher scores indicating severe frailty) as of January 1, 2018 (2018 cohort), and January 1, 2019 (2019 cohort), and total Medicare costs over the following 1 year. Two generalized estimating equation logistic models were fitted to predict being in the top 10% of total Medicare costs: 1) CMS-HCC score alone and 2) CMS-HCC score and CFI. Both models included demographic factors, socioeconomic status (derived from EHR data), and the social deprivation index. The added value of CFI was assessed using net reclassification improvement (NRI) with 4 risk categories (<5%, 5 to <10%, 10 to <20%, ≥20%) to compare two prediction models. We conducted subgroup analysis by 26 chronic conditions using data from the Chronic Conditions Warehouse.

Results: The population had a mean age (SD) of 75.0 (7.0) years, 57.4% women, 14.2% non-white race, and a median CFI (IQR) of 0.16 (0.12, 0.18). After adjusting for the CMS-HCC score and other covariates, frailty was associated with higher total Medicare costs (moderate-to-severe frailty [CFI ≥0.35] vs non-frailty [CFI <0.15]: mean difference, \$64,255; p<0.001). The NRI for CFI was 6.1% (3.3% for cases and 2.8% for non-cases) in the total population. The NRI was greater for those with asthma (11.7%), dementia (11.4%), depression (10.3%), and ischemic heart disease (9.7%).

Conclusion: Incorporating a CFI into the CMS-HCC model enhances the accuracy of identifying high-cost patients. By taking frailty into account, healthcare systems can effectively distribute resources and implement focused interventions to reduce healthcare costs.

B173

Comparing Post-Acute Care Services and Impact on Frailty between Medicare Advantage and Fee-for-service Medicare

S. Shi,¹ G. Oh,¹ B. Olivieri-Mui,³ C. Park,² S. M. Sison,¹ E. Mccarthy,¹ D. H. Kim.¹ *1. Hebrew SeniorLife, Boston, MA; 2. Gerontology, Hebrew SeniorLife, Boston, MA; 3. Northeastern University, Boston, MA.*

Background: Medicare Advantage (MA) plans provide less post-acute rehabilitation care compared to fee-for-service Medicare (FFS). However in limited studies for specific indications (e.g. hip fracture) no impact on clinical outcomes such as rehospitalizations and mortality has been observed.

Methods: Leveraging 2011-2017 National Health and Aging Trends Study (NHATS) linked to Medicare claims and the Minimum Data Set, we identified post-acute admissions to skilled nursing facilities (SNFs) that occurred within 6 months of a NHATS survey assessment. We classified participants as FFS or MA beneficiaries based on Medicare enrollment prior to survey assessment. We calculated frailty at each survey assessment using two approaches: a deficit-accumulation frailty index (FI), and frailty phenotype, from NHATS surveys that include functional measures. We characterized post-acute stays by rehabilitation minutes and days of therapy, and frailty measures from follow-up NHATS surveys. All analyses accounted for the complex sampling design and were weighted to reflect national estimates.

Results: Over 6 years of follow up, 1011 participants experienced a post-acute SNF stay, of whom 643 (64.3%) were enrolled in FFS Medicare. MA beneficiaries tended to be younger (age ≥80, 56.5% vs 64.3%), female (63.1% vs 60.6%), and non-white race (22.6% vs 16.0%), with less frailty (mean FI 0.38 [0.17] vs 0.41 [0.18]), frailty phenotype: 37.5% vs 40.2%) compared to FFS beneficiaries. MA beneficiaries had a shorter SNF stay (79.6 vs 97.2 days), and were less likely to have any therapy (PT: 74.7% vs 94.0%, OT: 74.2% vs 93.8%, SLP: 33.2% vs 22.0%). Among those who had, MA beneficiaries had less mean total minutes of therapy (PT: 388.0 [284.4] vs 706.7 [471.9], OT 356.7 [270.4] vs 641.1 [418.4], SLP 244.3 [232.4] vs 425.1 [312.8]) and fewer average days (PT: 7.4 vs 12.5, OT: 7.1 vs 12.0, SLP 6.0 vs 10.3). After 1 year follow up those with MA had a greater increase in frailty index (MA: 0.10 [0.15] vs 0.07 [0.12]), but similar FI (MA:0.47 [0.18] vs 0.45 [0.17]) and frailty phenotype (MA: 42.4% vs 45.9%).

Conclusion: MA beneficiaries receive less rehabilitative therapy during post-acute SNF stays than FFS beneficiaries, although no differences in frailty status were observed after 1 year.

B174

Incremental Total and Sector-Specific Healthcare Costs of Dementia and Cognitive Impairment in Community-Dwelling Older Adults: A Prospective Cohort Study

K. Sheets,^{1,2} H. Fink,^{3,2} L. Langsetmo,^{3,2} A. Kats,² J. T. Schousboe,^{4,2} K. Ensrud,^{3,2} 1. *Hennepin Healthcare, Minneapolis, MN*; 2. *University of Minnesota Twin Cities, Minneapolis, MN*; 3. *VA Health Care System, Minneapolis, MN*; 4. *HealthPartners Institute, Bloomington, MN*.

Background: Claims-coded dementia is associated with higher subsequent Medicare expenditures. It is unknown whether such cases fully reflect dementia burden or any association is independent of comorbidities. Cognitive impairment (CI) can be ascertained from cohort data. We determine the association of cohort-based CI and claims-based dementia with subsequent total, inpatient, post-acute care (PAC), home healthcare (HHC), and outpatient costs after accounting for comorbidities.

Methods: 8165 community-dwelling fee-for-service Medicare beneficiaries (4318 women, mean age 80; 3847 men, mean age 78) who had index examinations (2002-2011) in 4 prospective cohort studies linked with Medicare claims. Cohort-based CI was abnormal cognitive test results or self-or-proxy report of a dementia diagnosis. The Medicare CCW algorithm defined claims-based dementia. Comorbidity was count of chronic conditions. Costs were ascertained for 36 months following index exams.

Results: 227 participants met criteria for cohort-based CI and claims-based dementia, 291 for only cohort-based CI, and 161 only for claims-based dementia. After adjusting for demographics and comorbidity, mean annualized incremental costs (2023 dollars) of cohort-based CI vs. no cohort-based CI in women (men) were \$5997 (\$6329) for total healthcare costs, \$4160 (\$4047) for inpatient costs, \$1207 (\$1587) for PAC costs, and \$689 (\$688) for HHC costs. Mean incremental costs of claims-based dementia vs. no claims-based dementia in women (men) for total and inpatient costs did not significantly vary from zero, but were \$759 (\$1251) for PAC costs and \$582 (\$535) for HHC costs. Neither definition was associated with outpatient costs.

Conclusions: Diagnostic agreement between cohort-based CI and claims-based dementia is poor. After accounting for comorbidity, claims-based dementia is associated with higher subsequent costs only in the PAC and HHC sectors. Cohort-based CI is associated with higher subsequent healthcare expenditures for total, inpatient, PAC, and HHC costs, suggesting CI is associated with vulnerability to adverse health outcomes not fully captured by claims-based dementia.

B175

Association Between Physicians' Health System Affiliation and Patterns of End-of-life Care

H. Gotanda,¹ S. Kaneshiro,² D. B. Reuben,² A. M. Walling,^{2,3} D. S. Zingmond,² C. L. Damberg,⁴ N. S. Wenger,² H. Xu,² Y. Tsugawa.^{2,5} 1. *Cedars-Sinai Medical Center, Los Angeles, CA*; 2. *University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA*; 3. *Greater Los Angeles Veterans Affairs Healthcare System, University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA*; 4. *RAND Corporation, Santa Monica, CA*; 5. *Department of Health Policy and Management, University of California Los Angeles, Los Angeles, CA*.

Background: Despite the increase in primary care physicians (PCPs) becoming affiliated with health systems, it remains unclear whether patterns of end-of-life (EOL) care differ by PCPs' health system affiliation status.

Methods: Using a 20% random sample of Medicare fee-for-service beneficiaries who died in 2016-2019, we compared patterns of EOL care by PCP's health system affiliation status. We attributed beneficiaries to a PCP who had the largest number of primary care visits in the last 6 months of life, and determined PCP's health system affiliation status. Outcome measures included: (i) advance care planning (ACP) and palliative care (i.e., billed ACP, palliative care counseling or hospice use in the last 180 days of life), and (ii) high-intensity care at the EOL (e.g., emergency department [ED] visits or hospital admissions in the last 30 days of life).

Results: Among 487,293 beneficiaries, 162,334 (33.3%) were attributed to PCPs affiliated with a health system. Beneficiaries cared for by health system affiliated PCPs were less likely to have billed ACP (13.3% vs 16.4%; $P < 0.001$ after accounting for multiple comparisons) than those cared for by non-affiliated PCPs, but there was no evidence of difference in palliative care counseling or hospice use in the last 180 days of life between the two groups. PCPs' health system affiliation was modestly associated with more ED visits (58.5% vs. 57.1%; $P < 0.001$), hospital admissions (52.4% vs 51.1%; $P < 0.001$), intensive care unit admissions (28.5% vs. 27.9%; $P < 0.001$), and mechanical ventilation or cardiopulmonary resuscitation in the last 30 days of life (15.3% vs. 14.9%, $P = 0.02$), as well as in-hospital death (21.5% vs. 20.9%; $P < 0.001$).

Conclusions: PCPs' health system affiliation was associated with less billed ACP and slightly more high-intensity care at EOL care among Medicare decedents.

B176

Needing Help While Giving Help: Older Adults with Overlapping Caregiving Responsibilities and Care Needs in a US National Community-Based Sample

W. Semere,² V. Yank,² N. Lisha,² L. Lindquist,¹ A. Huang.^{2,3} 1. *Geriatrics, Northwestern University Feinberg School of Medicine, Chicago, IL*; 2. *University of California San Francisco Department of Medicine, San Francisco, CA*; 3. *Epidemiology and Biostatistics, University of California San Francisco, San Francisco, CA*.

Background: Community-dwelling older adults often serve as caregivers despite having their own health concerns and disabilities, yet little is known about their own care needs.

Methods: This is a cross-sectional analysis of a national sample of community-dwelling U.S. adults over age 60 in 2015-2016 who self-identified as caregivers. Caregiving was defined by self-reported assistance of another adult with day-to-day activities due to age or disability; overlapping care-receiving was defined by simultaneous receipt of help for at least one activity of daily living (ADL) or independent ADL (IADL). Multivariable logistic regression models examined attributes associated with overlapping care-receiving among older caregivers, adjusted for caregiver characteristics (age, gender, spousal caregiving, self-reported physical and mental health, and cognitive function).

Results: Among the 444 older caregivers, the mean age was 67.8 (SD 0.29) years, 55.8% were women, 78.1% were non-Hispanic White, 54.7% self-identified as primary caregivers, and 30.7% were caring for a spouse. Thirty two percent of older caregivers were themselves receiving assistance with at least one ADL or IADL. Compared to caregivers who were not simultaneously receiving care, caregivers reporting overlapping care-receiving had greater odds of being older (AOR 1.30 [95% CI 1.14, 1.48] per each 5-year age increase), caregiving for a spouse (AOR 1.93 [95% CI 1.20, 3.13]), having limited household assets (AOR 2.10 [95% CI 1.17, 3.80] for $< \$50,000$ in assets compared to $\geq \$50,000$), and having poor or fair self-reported physical health (AOR 2.94 [95% CI 1.43, 6.02]).

Conclusions: Over 30% of older adult caregivers report simultaneously receiving care for their own daily activities. Older caregivers who receive care are more likely to be older, spousal

caregivers, with limited assets and worse physical health. Targeted strategies are needed to support older caregivers who may be uniquely vulnerable due to their overlapping care dependence.

**B177 Encore Presentation
Racial Differences in Patterns of Goal Concordant and Goal Discordant Care Among Older Adults with Serious Illness**

K. S. Johnson,¹ D. B. Ejem,³ A. Gangavati,² R. Rhodes,² A. Platt,¹ M. Olsen,¹ T. Quest,⁴ *1. Duke University School of Medicine, Durham, NC; 2. UT Southwestern Medical Center, Dallas, TX; 3. UAB School of Nursing, Birmingham, AL; 4. Emory University Medical Center, Atlanta, GA.*

Background: Goal-concordant care (GCC) is an important quality measure in palliative care. The objective of this analysis was to examine racial differences in GCC.

Methods: Using data from EQUAL ACP, a multisite trial of two interventions to improve advance care planning in patients ≥ age 65 with serious illness, we defined GCC as the same and goal-discordant care (GDC) as different responses to 2 questions: (1) If you had to make a choice today, what would you prefer? (2) What best describes the care you are receiving? Responses were: (a) care that focuses on extending life even if it means having more pain and discomfort; (b) care that focuses on relieving pain and discomfort even if that means not living as long. We used chi-squared tests and logistic regression to examine predictors of GCC.

Results: Of 797 patients, 53.8% were Black; 46.2% were White. Mean age was 74.9. The most common diagnoses were Diabetes with complications (45.9%), ADL dependence (35.0%), and cancer (11.5%). Black patients were more likely to report poor/fair health (47.2% vs 33.2%, p<0.001) and to prefer care to extend life even if it means more pain (47.8% vs. 39.1%, p<.0001). Nearly 18% (N=140) were not sure what they preferred, and 24% (N=191) were not sure what type of care they were receiving; these patients were excluded from GCC/GDC analyses. Rates of GCC (N=546) were similar by race (79.2% vs 79.0%). In logistic regression adjusted for age, gender, education and self-rated health, race was not associated with GCC. However, among those receiving GDC, Black patients were more likely to prefer care to extend life even if it means having more pain but report receiving care to relieve pain even if it means not living as long (36.7% vs. 7.4%, p<0.001). Among those preferring care to extend life, 11.9% of Black vs. 3.2% of White patients received GDC (p=0.007).

Conclusions: Rates of GCC were similar by race; however, GDC with patient-reported preferences for care focused on extending life but receipt of care that focused on relieving pain even if that means not living as long was more common among Black patients. Future research should identify drivers of racial differences in GDC.

**B178
Using Health System Administrative Data to Capture Dementia Progression: DME Codes to Capture Advancing Mobility Impairment**

L. Min,^{1,2} C. Szeto,² J. Kang,¹ C. Cigolle,^{1,2} *1. University of Michigan, Ann Arbor, MI; 2. VA Ann Arbor Healthcare System, Ann Arbor, MI.*

Background: Progressive impairment in mobility is one marker of dementia progression. We explored durable medical equipment (DME) utilization data in VA administrative data to evaluate its usefulness as a marker of dementia progression limited life expectancy.

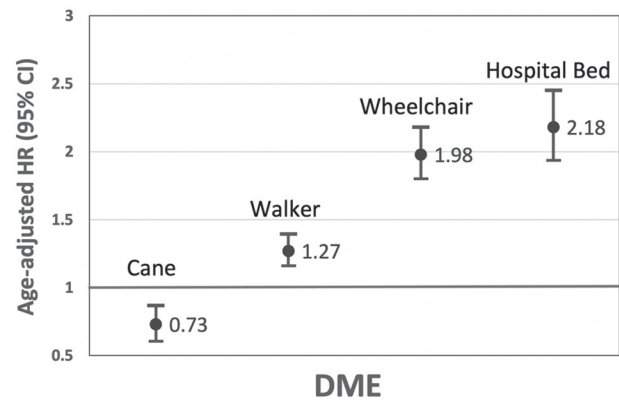
Methods: We used 4 years of VA outpatient primary care data (7/2009-6/2013) to identify community-dwelling Veterans age 65 + years with dementia coded during Year 1. We followed subjects in Year 2-4 (3 years) for mortality. In each year, we classified the most advanced CPT E-codes for DME provided through outpatient care: cane, walker, wheelchair, hospital bed. Once coded, we presumed impairment

as ongoing. We used time-varying Cox PH models to compare advancement in DME use to predict time to death, adjusted for age.

Results: In 67,956 Veterans, 0.9% received a cane; 2.3%, walker; 1.7%, wheelchair; 1.2%, hospital bed. Mortality increased with increasing mobility impairment from 14.7% for cane to 35.5% for hospital bed over 3 years, compared to 28% for the overall sample (no DME, p<.01). In Cox PH regression, cane was protective and hospital bed was associated with greatest risk (Fig).

Conclusions: CPT codes for mobility DME can help predict mortality and may contribute to life expectancy estimates beyond traditional life tables limited to age and gender. Development of dementia progression measures drawn from healthcare administrative data can help older adults with dementia, their caregivers, and health systems with care planning and decision support aides.

Mortality Risk of Advancing DME (vs no DME) in Dementia Progression



**B179 Student Presentation
Contributors to potentially preventable hospitalization from patient portal messaging among persons living with dementia (PLWD) and concurrent chronic conditions**

M. Y. Ahmidouch,^{1,2} C. Boyd,^{2,3} J. Wolff,^{2,3} S. Nothelle,^{2,3} *1. School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Geriatric Medicine and Gerontology, Johns Hopkins University, Baltimore, MD; 3. Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD.*

Background: Persons living with dementia (PLWD) are at increased risk of potentially preventable acute care (hospitalization and emergency department [ED]) visits. Many potentially preventable acute care visits amongst PLWD are related to a comorbid chronic disease (e.g. diabetes); however, modifiable contributors to potentially preventable acute care visits are poorly understood. We aimed to identify modifiable factors brought up by patients and their caregivers in secure portal messaging that may contribute to potentially preventable acute care visits amongst PLWD and advanced chronic illness.

Methods: We examined data from the Johns Hopkins Health System clinical electronic medical record from 2017-2022. We included adults 65 years and older with a diagnosis of dementia and at least one other advanced chronic illness (advanced liver disease, COPD, congestive heart failure, diabetes with complications, chronic kidney disease), 2+ primary care visits, and at least one potentially preventable acute care visit per the Agency for Healthcare Research and Quality algorithm. We extracted patient portal messages in the 30 days leading up to each potentially preventable acute care visit, which were then analyzed by two coders using a qualitative content analysis approach.

Results: We included 128 PLWD and an advanced chronic illness, of whom 75 (59%) were female, 68 (53%) white, 52 (41%) Black, 6% "Other". Approximately 47 (37%) had at least one patient or caregiver initiated secure portal message. The mean number of potentially

preventable acute care visits per person was 1.85 (SD 1.8) hospitalizations, 0.4 (SD 1) ED visits, and 0.16 (SD 0.5) 30-day re-visits. The average number of messages sent within 30 days of an acute care visit was 6.88 (6.8). The most common issues to arise in the qualitative content analysis were medication management, care coordination, and access to/timeliness of care.

Conclusion: Secure patient portal messages prior to a potentially preventable acute care visit contain information about modifiable unmet care needs. The most common issues identified in this analysis could be addressed by a care manager or other care coordinator.

B180 Student Presentation
Associations Between Cognitive Impairment & Functional Outcomes in Patients with Multiple Myeloma

J. Calhoun, Z. Nakamura. *The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Cancer related cognitive impairment (CRCI) is a complication of cancer/cancer treatments that has widespread implications for patients and survivors of disease. To date, few studies have investigated the effects CRCI in patients with multiple myeloma (MM). In this study, we characterize CRCI in this population and investigate associations between cognitive impairment (CI) and functional outcomes such as activities of daily living (ADL), Instrumental activities of daily living (IADL), and falls, in a cohort of patients with MM or other plasma cell disorders (PCD).

Methods: Ninety adult patients with MM or other PCDs enrolled in a registry and completed a geriatric assessment at study entry (Timepoint 1/T1) and 6 months (Timepoint 2/T2) after entry. Function was assessed on self-reported Likert-type scales to evaluate ADL and IADL impairment and falls. Cognition was assessed using the Montreal Cognitive Assessment (MoCA) or the brief T-MoCA which could be completed remotely. Mild cognitive impairment was defined as a score less than 25 and severe impairment as less than 17. Descriptive statistics was used to characterize cognition and function, and Fischer's exact test was used to evaluate associations between CI and functional outcomes.

Results: In the cohort of adults with MM/PCD the mean age was 68 years and 22% identified as Black. At T1, 49% had impaired cognition, 15% had experienced a fall in the last 6 months. 9% and 41% were impaired in ADLs and IADLs, respectively. Overall rates of cognitive or functional impairment did not change significantly over time. However, when compared to those who were not impaired at T1, participants who had impairment at T1 were more likely to develop IADL impairment at T2 (34% vs. 4%, $p=0.02$).

Conclusion: This study characterizes cognitive impairment in patients with MM and reports rates of impairment that are consistent with the literature pertaining to other cancer patient populations. We report a significant association between CI at T1 and development of impairment in IADLs over time. Our data supports the value of routine cognitive screening (in-person or remote) to identify patients at risk for functional decline and facilitate early intervention.

B181 Student Presentation, Encore Presentation

Perceived Pain follow Hypnotic Deprescribing

J. G. Hurtado,^{1,2} A. Erickson,² M. N. Mitchell,² J. L. Martin,^{2,3} C. Alessi,^{2,3} J. Dzierzewski,⁴ S. Ghadimi,^{2,3} E. Der-Mcleod,² C. Perdomo,^{3,2} S. Naeem,² A. Moore,⁵ M. S. Badr,^{6,7} M. Zeidler,^{2,3} C. H. Fung.^{2,3} 1. *University of Nevada Las Vegas Kirk Kerkorian School of Medicine, Las Vegas, NV;* 2. *VA Greater Los Angeles Healthcare System, Los Angeles, CA;* 3. *University of California Los Angeles, Los Angeles, CA;* 4. *National Sleep Foundation, Washington, DC;* 5. *University of California San Diego, La Jolla, CA;* 6. *Wayne State University, Detroit, MI;* 7. *John D Dingell VA Medical Center, Detroit, MI.*

Background: Cognitive behavioral therapy for insomnia (CBTI) is first-line treatment for insomnia but benzodiazepine/z-drugs (BZAs) are often prescribed despite recommendations to avoid their use in older adults. CBTI improves BZA deprescribing success and insomnia, but effects of CBTI and BZA deprescribing on pain, which commonly co-occurs with insomnia, are not well understood. The SWITCH trial tested two methods of deprescribing BZAs in older adults in combination with CBTI. In this secondary analysis, we examined changes in pain in adults 55+ years following CBTI and BZA deprescribing. We hypothesized that pain interference with daily activities (primary) and pain severity (secondary) would differ at 1-week post treatment (PTX) and six months (6M) compared to baseline.

Methods: Both trial arms included CBTI and BZA deprescribing and were combined for these analyses ($n=188$; $m = 69$ years, $SD = 8.3$, $55 \leq \text{age} \leq 91$; white 80%; male 65%). The Brief Pain Inventory was used to measure pain interference with daily activity and pain severity. Paired *t*-tests were used to measure changes from BL to PTX as well as BL to 6M.

Results: A majority completed PTX ($n = 169$) and 6M follow-up assessments ($n = 138$). From BL to PTX, statistically significant improvement was found in pain interference ($t(168) = -2.54$, $p = .012$), but not in pain severity ($t(168) = -1.04$, $p = .299$). Improvement in pain interference was generally small ($M_D = -.42$). From BL to 6M, no significant differences in pain interference ($t(136) = -.18$, $p = .85$) or pain severity ($t(137) = 1.2$, $p = .23$) were found.

Conclusion: Participants who underwent CBTI and BZA deprescribing reported a reduction in the impact of pain on daily activities at PTX, but not in pain severity. These findings suggest interventions to address insomnia and decrease BZA use may also be somewhat beneficial short-term in reducing the ways pain limits daily activities. Future studies are needed to identify methods of sustaining the improvements and increasing the magnitude of effect.

B182 Student Presentation, Encore Presentation
Determining Differences in the Association between Atrial Fibrillation and Ischemic Stroke Outcomes by Acute Therapy Received

A. Lopez,¹ J. Wang,² M. Prashant,² M. Johansen.² 1. *Northeast Ohio Medical University, Rootstown, OH;* 2. *Department of Neurology, Johns Hopkins Medicine, Baltimore, MD.*

Background: Whether the association between atrial fibrillation (AF) and ischemic stroke (IS) outcomes differs by IS therapy is unknown. We hypothesize worse NIH Stroke Scale (NIHSS) and 90-day modified Rankin Scale (mRS) scores in AF IS patients versus non-AF, with differences by IS therapy.

Methods: We studied a cohort of AF and non-AF IS patients (2020-2023) who received acute IS therapy (intravenous tissue plasminogen activator (IVtPA), mechanical thrombectomy (MT), or both). Multivariable regression models examined the association between AF and NIHSS (continuous or dichotomized at the mean (5)) or mRS (ordinal) separately, with interaction terms for IS therapy.

Results: In 240 patients (mean age 67, 52.5% female, 56.2% Black), 26.2% received IVtPA, 45.8% MT, and 27.9% both. There

were was a higher odds of an NIHSS > 5 among AF patients (OR 3.46, 95% CI 1.16-10.30) as well as a higher odds of a worse mRS (Ordinal OR 2.05, 95% CI 1.14-3.71), but not after adjustment (Ordinal OR 1.07, 95% CI 0.52-2.20). The association between AF and IS outcomes differed by IS therapy (Table 1). AF patients who did not receive MT had a worse NIHSS, and higher odds of a one unit increase in mRS, versus MT-treated (p-interaction 0.07, 0.01 respectively). AF patients who received IVtPA had a worse NIHSS, versus not IVtPA-treated (p-interaction 0.07), with essentially no difference in the association between AF and mRS when considering IVtPA use (p-interaction 0.09).

Conclusion: In this study, AF patients had a higher mRS and worse discharge NIHSS versus non-AF, with differences by therapy; not receiving MT was detrimental for AF patients while our found worse outcome with IVtPA may reflect AF-associated treatment delays.

Table 1. The Effect of Acute Stroke Treatment* on the Association Between Atrial Fibrillation and either Stroke Severity at Time of Discharge (NIH Stroke Scale (NIHSS)), or 90-day Stroke Outcomes (Modified Rankin Scale (mRS))

Association of Atrial Fibrillation and NIHSS, Stratified by Acute Stroke Treatment (N=197)						
	Model 1		Model 2		Model 3	
	p-interaction	β (95% CI)	p-interaction	β (95% CI)	p-interaction	β (95% CI)
MT	0.07		0.08		0.07	
Received		0.29 (-1.88, 2.45)		0.29 (-1.90, 2.48)		0.41 (-1.76, 2.58)
Not Received		5.24 (0.68, 9.80)		5.54 (0.48, 10.61)		4.81 (0.004, 9.61)
IVtPA	0.07		0.07		0.07	
Received		2.80 (0.26, 5.34)		2.70 (0.07, 5.34)		2.73 (0.14, 5.32)
Not Received		-0.11 (-3.07, 2.85)		0.05 (-2.95, 3.06)		-0.08 (-3.06, 2.89)

Association of Atrial Fibrillation and mRS, Stratified by Acute Stroke Treatment (N=197)						
	Model 1		Model 2		Model 3	
	p-interaction	Ordinal OR (95% CI)	p-interaction	Ordinal OR (95% CI)	p-interaction	Ordinal OR (95% CI)
MT	<0.01		<0.01		0.01	
Received		0.73 (0.37, 1.45)		0.68 (0.34, 1.36)		0.63 (0.32, 1.26)
Not Received		5.04 (1.40, 18.13)		5.10 (1.91, 34.32)		3.41 (0.79, 14.65)
IVtPA	0.03		0.02		0.09	
Received		1.29 (1.04, 1.60)		1.17 (1.12, 1.62)		1.67 (0.73, 3.85)
Not Received		0.53 (0.22, 1.26)		0.48 (0.20, 1.16)		0.52 (0.22, 1.23)

Linear regression models were used for NIHSS. Ordinal Logistic Regression Models were used for mRS.
 Model 1: Adjusted for age, sex (female vs. male), race (black vs. others). Model 2: Adjusted for Model 1 plus current smoker, HbA1c at the time of admission and hyperlipidemia history. Model 3: Adjusted for Model 1 plus Charlson Comorbidity Index.
 *P-interaction term significance level set at p < 0.1.
 †Patients received either Intravenous Tissue Plasminogen Activator (N=130) or Mechanical Thrombectomy (N=177) or both (N=67); those who received IVtPA and MT were counted in both groups.
 Abbreviation: MT: Mechanical Thrombectomy; IVtPA: Intravenous Tissue Plasminogen Activator; β: Beta-Coefficient; OR: Odds Ratio; CI: Confidence Interval

B183 Student Presentation
Psychiatric comorbidities in older women with binge eating disorder

S. Lee, T. Loera, J. Macias, L. Kilpela. *The University of Texas Health Science Center at San Antonio, San Antonio, TX.*

Binge eating disorder (BED), which is characterized by episodes of binge eating (i.e., consuming an abnormally large amount of food with a loss of control [Giel et al., 2022]), is the most common eating disorder in postmenopausal, older women (Mangweth-Matzek et al., 2023). Importantly, BED is associated with mental health comorbidities, which may contribute to worse BED prognosis (Thornton et al., 2017). Yet, little is known about BED course of illness or psychological comorbidities in later life. This study examined psychiatric comorbidities in older women with BED, in the context of illness trajectories (age of onset and precipitants).

Older women (N=49), aged 60+ years (M=64.9, SD=4.6), with current DSM-5 BED reported BED age of onset and completed measures of BED severity and psychiatric comorbidities.

Most (92%) older women with BED in later life endorsed current and/or historical psychiatric comorbidity. Regarding BED age of onset, 44.9% reported youth onset (age<40), 36.7% reported midlife onset (age 40-59), and 18.4% reported later-life onset (age 60+). Half (50%) of those with youth onset BED had severe symptoms; 61% with midlife onset and 33% with later-life onset had severe BED. Most women with youth (64%) and midlife BED onset (78%) had clinical depression, while 44% of later-life onset did. Most with youth (82%) and midlife (83%) onset had clinical sleep problems; 44% of later-life onset did. Chi square analyses showed no significant differences in BED symptom severity or depression by BED age of onset; sleep problems were significantly different by onset age. Common precipitating events for BED onset were bereavement, COVID-19 pandemic, and life role changes. The poster will include an expanded analysis of precipitants.

Of those with youth onset BED who reported a psychiatric history (n=13), 85% reported BED onset predated psychiatric diagnosis. Among midlife BED onset with a psychiatric history (n=12), 92% reported psychiatric illness onset either predated or developed simultaneously with BED onset. Two women with later-life BED onset reported their psychiatric diagnosis predated BED onset.

Findings suggest that BED onset occurs across the lifespan and that BED in later life frequently presents with psychiatric comorbidities. However, the nuances of BED duration in context of mental health remain largely unknown, warranting further research as it may affect treatment and intervention.

B184
Nursing Driven Goals of Care Conversations
 K. Wright,² D. Wintz,¹ S. Nilsen,² K. Schaffer.¹ *1. Surgery, Sharp Memorial Hospital, San Diego, CA; 2. Sharp Memorial Hospital, San Diego, CA.*

Background: There are many barriers to establishing code status for hospitalized patients, including provider time constraints. The authors strove to demonstrate effectiveness of nursing teams (NT) specializing in code discussion, goals of care (GOC), and long-term Advanced Care Planning to decrease burden and time commitment of physicians, provide these comprehensive, critical conversations and effectively place limitations on code status in appropriate circumstances.

Methods: Code NT was initiated and consulted for patients demonstrating chronic illness, frailty, or geriatric syndrome where the physician team supported de-escalation of code status. The Code NT met with the patient or family an average of three times during hospitalization for 30 minutes with detailed documentation of “what matters in their healthcare journey”, completing GOC forms and establishing longer term goals. Demographic data, GOC, and GOC conversion data was collected and retrospectively reviewed from October 1, 2022-June 30, 2023.

Results: Over a 9 month trial period, 3967 patients were consulted by Code NT at one community hospital. 99% of patients who had a FRAIL score completed (5 point FRAIL questionnaire) and scored a 5, indicating geriatric syndrome, received consultation. Mean length of stay was 6.8 days and 88% were 65 years and older. 31% of the cohort changed their documented code status prior to discharge and, of those patients, 95% de-escalated with a change to Limited Code Status or Comfort Measures. 83% arriving with code status limitation had no change at discharge but 14% converted to Comfort. Among the geriatric patients, there was a decrease of 66% Full Code on arrival to 43% Full Code at discharge.

Conclusion: Employing a Code NT to conduct goals of care conversations may be an effective use of time and resources resulting in de-escalation of resuscitation orders for patients demonstrating chronic disease, frailty, or geriatric syndrome.

B185 Student Presentation
Optimizing Acute Rehabilitation Use in Older Adults with Trauma: A Collaborative Geriatric Trauma Approach
 G. Trang,¹ K. Balangue,^{1,2} N. Keric,^{1,2} N. Agarwal.^{1,2} *1. The University of Arizona College of Medicine Phoenix, Phoenix, AZ; 2. Banner Health, Phoenix, AZ.*

Background:

Trauma in older adults has significant morbidity and mortality. Acute rehabilitation post-trauma can have lasting effects on functional independence and survival. In 2018, our geriatrics and trauma teams collaborated to build a cohesive program following the 4Ms model of the Age Friendly Health Systems Initiative to enhance care. We focused on improving our discharge rates to acute inpatient rehabilitation (IRF) compared to skilled nursing facilities (SNF).

Methods:

We observed the discharge trends of older adults from 2018 to 2023 using Trauma Quality Improvement Program (TQIP) benchmark reports, coinciding with the expansion of the geriatrics program. Three cohorts were analyzed: elderly patients, elderly patients with multi-system blunt injuries, and elderly patients with isolated hip fracture cohorts and their discharge to IRF, SNF, and home. Simple linear regression model assessed trends in discharge over time.

Results:

From 2018 to 2023, there was a significant increase in the percentage of patients being discharged to IRF from elderly (1.15, 95% CI: 0.65 to 1.65, $p < 0.001$), multisystem blunt (2.12, 95% CI: 0.45 to 3.79, $p = 0.018$), and isolated hip fracture cohorts (2.70, 95% CI: 1.80 to 3.60, $p < 0.001$). There was a significant decrease in the percentage of patients being discharged to SNFs in the elderly (-1.07, 95% CI: -1.78 to -0.37, $p = 0.008$) and isolated hip fractures cohorts (-2.99, 95% CI: -4.72 to -1.25, $p = 0.004$). There was a nonsignificant decrease in the percentage of patients discharged to SNF in the multisystem blunt cohort (-1.70, 95% CI: -3.6 to 0.23, $p = 0.07$). No significant changes in home discharges in all cohorts.

Conclusion:

The American College of Surgeons recommends collaboration between geriatrics and trauma teams in the care of older adults. Using a collaborative and systematic approach, our program was able to achieve notable improvements in geriatric trauma discharges. The 4Ms model utilizes a structured approach for early identification of older adults at-risk for loss of independence and in need of IRF. Up to 88% of older trauma patients do not return to their previous level of independence, which further warrants aggressive rehabilitation after trauma. Next steps include exploring outcome measures such as mortality and readmission.

B186 Student Presentation

Results of a Quality Improvement Initiative on Polypharmacy and Deprescribing in Older Adults Admitted after Acute Fall
P. Gangupantula,¹ A. Cooney.^{1,2} *1. The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2. University Health, San Antonio, TX.*

Background:

A third of older adults (OA) (≥ 65 years old) fall annually. Many modifiable risk factors, including polypharmacy (defined as ≥ 5 outpatient medications), contribute to falls. Polypharmacy increases the risk of recurrent falls by 1.5-2x. While comprehensive geriatric assessment (CGA) includes evaluation for polypharmacy, little is known regarding the impact of deprescribing in an acute inpatient setting. This study examines the impact of polypharmacy and deprescribing following an acute inpatient CGA.

Methods:

OA hospitalized after a fall from January-June 2023 underwent CGAs at a single academic institution. Retrospective chart reviews evaluated the CGA note to determine recommendations regarding polypharmacy, type of deprescribing, deprescribed drug name, drug class, and notation of a 2023 American Geriatrics Society Beers criteria (Beers) medication. To improve deprescribing recommendations, the CGA note template was modified on April 1 to denote specific recommendations to discontinue, hold, and/or taper medications.

Results:

283 OA met inclusion criteria. Polypharmacy occurred in 239 (84.45%) OA and deprescribing was recommended in 222 (78.44%) OA. While many OA had more than one type of deprescribing recommendation, 64.66% had ≥ 1 medication held, 48.76% had ≥ 1 medication discontinued, and 20.85% had ≥ 1 medication tapered. The most commonly deprescribed Beers medication included furosemide, losartan, pantoprazole, aspirin, and gabapentin. The most commonly deprescribed drug classes included antihypertensives, non-steroidal

anti-inflammatory drugs, proton pump inhibitors, opioids, and antihistamines. Changing the CGA template to denote specific deprescribing recommendations led to more recommendations overall, with a 7.28% increase in medication discontinued, 3.82% increase in medication tapered, and 3.25% increase in medication held.

Conclusions:

While polypharmacy and deprescribing occurred in the majority of OA admitted after acute fall, implementation of a more specific CGA deprescribing template resulted in increased deprescribing. Subsequent studies should examine if these deprescribing recommendations were followed in the outpatient setting and if following these recommendations impacted future fall risk.

B187

Improving delirium assessments on an acute senior health ward. A quality improvement project for care of the elderly.

C. F. Taylor, N. Mohamadzade, O. Mitchell, C. Bateman-Champain, W. Han, L. Makie, J. Hetherington, F. Belarbi, G. Alg. *General Internal Medicine, St. Georges NHS Foundation Trust Hospital London, London, United Kingdom.*

Background: Delirium is a common and reversible neurobehavioral condition with significant morbidity and mortality ramifications for elderly patients. Consequentially, clear guidelines exist pertaining to its swift identification and management. However, studies suggest that adherence to these guidelines are poor. This audit aimed to evaluate compliance to the National Institute for Health and Care Excellence's (NICE) delirium guidelines in an Acute Senior Health Unit (ASHU) and to present a single centre experience of a low-cost ward based intervention for improving delirium guideline adherence.

Methods: A retrospective observational audit was conducted on patients admitted to ASHU between 01/07/2023 and 30/07/2023. Data on delirium assessments, diagnoses and causes of delirium were obtained through retrospective database searches. Posters and education based MDT interventions were designed and initiated following grounded thematic literature analysis and ward discussion. A methodically equivalent audit was then conducted between 01/09/2023 and 30/09/23. Data was anonymised and blinded and analysis was performed on SPSS.

Results: A total of 128 patients were included in the study. Initial audit revealed suboptimal compliance with NICE recommendations. Chi-square test of independence found that patients were statistically more likely to receive a full delirium assessment (1.9% vs 56.6%, $p = 0.001$) and formal diagnosis (5.8% vs 27.6%, $p = 0.002$) after the ward based intervention.

Conclusion: This study provides limited evidence in favour of low-cost MDT based interventions for improving adherence to NICE delirium guidelines and provides a 5-step framework for future studies. This study also explores the potential patient implications of these interventions. A repeat audit should be conducted to ensure lasting and sustainable change is achieved.

B188 Resident Presentation

Dementia Care Aware: Implementing Cognitive Health Screening in an Urban, Underserved Family Medicine Clinic

M. Quan, H. Schickedanz, E. Wong. *Family Medicine, Harbor-UCLA Medical Center, Torrance, CA.*

Background: Dementia Care Aware (DCA) is a California state-wide program developed in response to Senate Bill 48 which expands Medi-Cal benefits to include an annual cognitive health assessment for those 65+ if they do not have Medicare. DCA targets this overlooked population by training primary care providers (PCPs) on the early detection of dementia through annual screening. In March 2023, DCA was implemented at Harbor-UCLA Lomita Family Health Center, a family medicine teaching clinic serving an urban, diverse, historically marginalized population, many of whom are Medi-Cal beneficiaries.

Methods: DCA's screening tool is the Cognitive Health Assessment (CHA), which includes the Mini-Cog, a functional assessment, caregiver name and contact, and the AD8 screen. Two training sessions were held in February (n=24 participants) and October (n=26) 2023, providing background on DCA and cognitive impairment, and training on the CHA. From March-September 2023, project coordinators identified patients with scheduled primary care visits who were 65+ without a dementia diagnosis and not taking dementia medications, and PCPs completed CHAs during these visits in the patient's primary language.

Results: 10 of 57 (17.5%) CHAs administered were positive. Medi-Cal only and Hispanic/Latino patients comprised 33.3% and 64.9%, respectively, of screened patients. Within the Hispanic/Latino group, 25.7% screened positive as compared to 5% in the non-Hispanic/Latino group. 25 were conducted in English and 29 in Spanish, with positive screens for 8% and 27.6%, respectively.

Conclusions: Approximately 1 in 5 patients screened positive on the CHA, exceeding the commonly cited 10% prevalence of dementia in U.S. adults 65+. Higher positivity rates among Hispanic/Latino patients highlight the need to improve training and screening workflows in similar diverse, under-resourced settings. Prior to DCA, there was no standardized training or screening tool to support PCPs' assessment of underserved older adults' cognitive health in primary care. Our project highlights the feasibility and importance of dementia screening for marginalized patients, including Medi-Cal beneficiaries often overlooked due to lack of Medicare benefits. Next steps include quality improvement in our training and screening efforts, and review of positive screens to better characterize their clinical features, care plan, and opportunities for improved care.

B189 Student Presentation
Challenges for recruitment and follow-up in a Fall Prevention Program for rural older adults

P. A. Wolbert,¹ K. King,¹ J. Pandey.² 1. Central Michigan University College of Medicine, Mount Pleasant, MI; 2. Pathology, Central Michigan University College of Medicine, Mount Pleasant, MI.

Background:

Living FREE program, part of our Healthy Aging Initiative, offers a comprehensive fall prevention approach for older adults in rural Central Michigan. The program was tailored for the subset of older adults (1) who fall, (2) attend the emergency room (ER) of regional hospitals, (3) are found to have no medical cause of fall or injury and (4) do not qualify for a physical therapy intervention. Post discharge these patients are usually lost to follow-up and predisposed to repeated falls.

Methods:

"Living FREE" is a community-based free service that includes behavioral interviews, home safety assessments, personalized fall reduction plans, and ongoing support for lifestyle changes and comorbidity management to enhance health and prolong independence. We worked with all central Michigan ERs who referred qualifying older adults. Primary data collection involved scheduling home visits to assess fall risk and develop a fall reduction plan.

We tracked the engagement levels of all referred participants, and these are categorized into four outcomes: 1) those who did not engage with the program; 2) those did not respond; 3) those who were actively present and engaged with the program; and 4) those who were ineligible on initial contact and assessment.

Results:

We found that a large number of referred older adults did not wish to engage with the fall reduction program. Out of 923 referrals from September 2021 to November 2023, 296 (32%) did not engage, 479 (52%) did not respond, 65 (7%) were actively engaged, and 83 (9%) were ineligible for the program due to medical issues. The number of referrals resulting in 'no contact' responses agree with

literature surrounding similar initiatives. Rural dispersed older adults have transportation and financial constraints, and a cultural mistrust of free programs. We believe that these factors are impacting the engagement with the program.

Conclusion:

Our study underscores the significant challenges in recruiting and ensuring appropriate fall prevention and health empowerment programs. To address these, it is imperative that we establish robust partnerships with primary care physicians (PCP), leveraging their trusted relationship to improve engagement. Our plan is to rebuild the program to have the PCP as a partner to promote engagement with fall prevention measures that we offer.

B190

Is Gabapentin Deliriogenic as a Postoperative Analgesic in Older Colorectal Surgery Patients?

A. Rajan,¹ J. G. Monteiro,² N. Mujahid,¹ M. Vrees,¹ S. Schechter,¹ L. McColl,¹ S. Gravenstein,¹ M. Singh.¹ 1. Brown University, Providence, RI; 2. Brown Medicine, Providence, RI.

Background: The Enhanced Recovery After Colorectal Surgery pathway specifies using an opioid-sparing pain regimen to shorten time to return of bowel function and length of stay (LOS). Use of gabapentin as a postoperative analgesic is lacking evidence. Our study assesses the association of gabapentin use with postoperative delirium.

Methods: We adopted use of low (LG) and high-dose (HG) gabapentin as an opioid sparing postoperative analgesic for patients undergoing colorectal surgery (CRS). The retrospective design includes 1139 patients aged 65 or older admitted for elective CRS from 04/2015 to 06/2023, and excludes those requiring critical care or a >3 month LOS. Delirium was defined by ICD codes and/or new antipsychotic use. Bivariate analyses using chi-square and Student's t-tests were performed to compare the study groups characteristics. Multivariate logistic regression analysis compared rates of delirium among No gabapentin [NG], [LG] and [HG] groups. The analysis was adjusted for age, race, ethnicity, gender, CCI, depression, dementia, LOS, postoperative gabapentin use. Additional subgroup analysis with pre admission gabapentin use was done.

Results: Individuals on NG, LG, and HG represented 20.7%, 70.7%, and 8.6%, respectively. The NG group was older (75.5±7.3) and had more males (50%). Overall mean (SD) CCI was 6.4 (3.8) and did not differ significantly between the groups. The NG group had more patients with depression (57.2%) than HG (40.8%, p-value=0.006) as well as dementia (NG 9.3% vs LG 3.6%, p value=0.0003 vs HG 3.1%, p value 0.047). There was no difference in delirium rates between the groups, LG (18.0%) vs HG (18.4%, p-value=0.931), or NG (23.7%) vs LG (18.0%, p-value=0.05) or HG (18.4%, p-value=0.282). Among patients on gabapentin before admission: HG group was more likely to be delirious than LG, OR 2.5 95% CI (1.01,5.99) and NG groups, OR 2.7 95% CI (1.09,6.43). Among patients not on Gabapentin before admission: NG had 48% (1.48 [1.01-2.16]) and 2.5 times (2.49 [1.04-5.99]) more likely to have delirium than LG and HG, respectively.

Conclusion: CRS patients who were never on gabapentin are more likely to develop delirium. The NG group may have more risk factors increasing their delirium susceptibility. The effect of gabapentin as an analgesic needs further study in terms of pain control and delirium.

B191

Management of GvHD in Older Adults: A Literature Review Reveals an Absence of Meaningful Information

W. Ciurylo,¹ A. Hamparsumian,² G. Meyers,³ S. Wall.⁴ *1. Geriatrics, The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 3. Oregon Health & Science University, Portland, OR; 4. The Ohio State University Wexner Medical Center, Columbus, OH.*

Background: Hematopoietic stem cell transplantation (SCT) is increasingly being performed in patients 60 years and older. Graft vs host disease (GvHD) as a complication of SCT is a major cause of morbidity, non-relapse mortality, and interference with quality of life. Older adults are at higher risk for this complication. They are also at higher risk of adverse events from its treatment with corticosteroids, the mainstay first line treatment of GvHD. Currently there is no standard of care for GvHD in older adults. The aim of this study was to review the available literature and guide best practice in older adults.

Methods: A scoping review was performed. Using the Pubmed database, randomized controlled trials comparing immunosuppressive treatment modalities for GvHD within a ten-year span (02/13/2013-02/13/2023) were identified producing 31 candidate articles. Articles that explored cutaneous GvHD only or corticosteroid treatments were excluded. Articles were reviewed for inclusion of patients 65 years and older and response rate, mortality rate, adverse events, degree of corticosteroid sparing, and quality of life scores before and after treatment in this population. Article review was split between two independent reviewers.

Results: Seventeen articles were identified for a total of 2534 patients with GvHD. Two articles did not include patients 65+, ten articles did not specify the number of patients 65+, five articles indicated the number of patients 65+ for a total of 160 patients in this cohort. No articles specified response rate, mortality rate, and adverse events in patients 65+. Twelve articles indicated degree of corticosteroid sparing. Six articles included quality of life scores but none assessed impact of treatment of quality-of-life scores and none specified quality-of-life scores in patients 65+.

Conclusions: Further research is needed to determine the best treatment modality for geriatric patients with GvHD. Immunosenescence within this cohort may result in differing response rate and adverse events to immunosuppression. However, this is difficult to assess in the current literature due to a lack of reporting specific to this population.

B192

Arming up against shingles: challenges to improving vaccination rates in a geriatrics clinic at a safety net hospital

J. Rosenthal,¹ E. K. Jones,¹ E. Degnall,¹ T. George,¹ A. Chan,³ S. Andersen,² L. Caruso.¹ *1. Geriatrics, Boston Medical Center, Boston, MA; 2. Geriatrics, Boston University, Boston, MA; 3. Infectious Disease, Boston Medical Center, Boston, MA.*

Background

Shingles infection is associated with significant morbidity in older adults. The recombinant zoster vaccine (Shingrix) reduces the risk of developing shingles by up to 97%, but only about 33% of adults over 60 in the US are vaccinated. The aim of our quality improvement project was to increase the Shingrix vaccination rate in our geriatrics clinic from a baseline rate of 17-23% to 30%.

Methods

We surveyed providers at a geriatrics primary care clinic at Boston Medical Center, an urban safety net hospital, to identify barriers to Shingrix vaccination. Based on survey results and additional discussion, our first Plan-Do-Study-Act (PDSA) cycle focused on educating providers on how to correctly order the vaccine at the hospital pharmacy. We also worked with IT to remove obsolete shingles vaccine orders from the electronic medical record.

Results

Fourteen clinic providers completed a survey about perceived barriers to shingles vaccination. 100% of providers stated they would be more likely to discuss the vaccine if it were offered in the clinic, rather than at the pharmacy. 36% did not discuss the vaccine with patients due to time constraints. In the comments section of the survey, 29% noted difficulties placing the order.

Based on a random sampling of 16 clinic days in the month preceding our intervention, 17% of patients (42/245) had received at least one dose of Shingrix. Of those not vaccinated, only 1% of patients (3/203) had Shingrix orders placed. In the three weeks following our interventions, 23% of patients (44/187) had already received at least one dose of Shingrix. Among unvaccinated patients, 7% of patients (10/143) had orders placed and 1 patient received the vaccine. 64% (92/143) received flu and/or COVID vaccines during their appointment.

Conclusions

Our intervention slightly increased the rates of Shingrix orders placed but had minimal impact on vaccination rates. This may be due to the unavailability of the vaccine at the clinic. Also, providers may have prioritized other vaccinations over Shingrix during flu season. Future steps should investigate this intervention outside of flu season. Additional PDSA cycles could have medical assistants provide education about Shingrix to patients during intake or trial offering vaccination directly in clinic.

B193 Student Presentation

Assessing What Matters Most in the Geriatric Clinic

M. Nguyen,¹ D. Freeland,³ J. Voit.² *1. The University of Texas Southwestern Medical Center Medical School, Dallas, TX; 2. Internal Medicine, The University of Texas Southwestern Medical Center Department of Internal Medicine, Dallas, TX; 3. Internal Medicine, The University of Texas Southwestern Medical Center, Dallas, TX.*

Background: Geriatricians often utilize the “4Ms Framework” when approaching complex older adults: What Matters Most (WMM), Mentation, Mobility, and Medications. However, capturing WMM to older adults can be challenging to implement in a systematic way within a busy clinic. Standardization can help ensure WMM is collected and entered into the appropriate place in the electronic medical record (EMR). This study aims to develop a streamlined process to assess and document WMM within the UT Southwestern Geriatrics Clinic.

Methods: Using a quality improvement approach, we created a fishbone diagram noting potential barriers to assessing WMM. We focused on lack of standardization in how to capture WMM and adapted a WMM tool from the VA Boston Medical Center, used with permission. We consulted key players of the clinic team on patient flow to incorporate the tool with minimal workflow disruption. Using small tests of change, we distributed the final version of the WMM tool to one physician’s patients over the span of 3 weeks. Answers to the WMM tool were reviewed. A random selection of patients/caregivers were called after their appointment to obtain their feedback on the WMM tool and its feasibility and acceptability.

Results: 39 out of 42 patients who received the form provided responses. Overall, the most common themes were prioritizing time spent with loved ones and valuing quality of life. In patient and medical staff feedback, there were no major difficulties during distribution and completion of the form. For additional feedback, 13 patients and caregivers were reached after the visit, with 8 providing positive feedback (such as the form allowed for better insight into the patient as a person) and 5 providing neutral feedback (such as indifference about the tool).

Conclusions: Assessing WMM can be difficult in the outpatient setting. Use of an adapted WMM tool can help capture this information and with minimal disruption to staff and patients. Although the tool elicited useful information, integrating these responses into the

EMR remains a challenge. Next steps include expanding this tool to other physicians and implementing additional quality improvement PDSA cycles to address how to best document these in the EMR.

B194 Student Presentation
Impact of Panel Management on Treatment Burden Experienced by Care Partners of Patients with Diabetes and Dementia: Trial of Enhanced Quality in Primary Care for Elders with Diabetes and Dementia (EQUIPED-ADRD)

A. Vincenty Acosta,¹ O. Adeyemi,¹ M. Arcila-Mes,¹ C. Rapozo,³ C. Blaum,² J. Chodosh.¹ *1. New York University Grossman School of Medicine, New York, NY; 2. National Committee for Quality Assurance, Washington, DC; 3. Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Care partners experience stress caring for persons with Diabetes Mellitus (DM) and Dementia affecting quality of life and may lead to feeling burdened by the care they provide. Dementia-trained diabetes educators serving as panel managers can provide care partners with medically informed and psychosocial support. Whether panel management for care partners of patients with DM and dementia can reduce burden is unknown.

Methods: We randomized primary care and endocrine clinics caring for 947 patients with DM/Dementia in a pragmatic quality improvement trial to receive panel management or usual care. Patients' care partners completed a Treatment Burden Questionnaire (TBQ) (15 items–Likert; 0-10; 0=no burden, 10= high burden) as the outcome measure. Predictor variables were panel management (PM) randomization (yes/no) and PM dose (four-level categorical variable – none, 1, 2 to 10, more than 10). We measured TBQ, controlling for age, sex, race, and ethnicity, as a longitudinal analysis using generalized estimating equation with time points at 0, 6, 12, and 24 months. We report the adjusted mean difference (aMD) and 95% confidence interval (CI) in treatment burden score by panel management dose.

Results: 355 (37.5%) care partners completed the TBQ (191 intervention, 164 usual care). Overall, 57.3% were between 45-64 years old. 78.3% identified as female, 39.2% Hispanic, and 16.6% Black/African American with no between-group differences. 131 (68%) in the intervention had at least one PM dose. Using an intention-to-treat analysis, care partners of patients in the intervention had lower TBQ scores compared to usual care (aMD: -6.28; 95% CI= -10.88, -1.68). A single dose of panel management adjusted for demographic characteristics, was associated with lower treatment burden scores (aMD: -7.00; 95% CI= -11.80, -2.20). Higher dose categories were not significant.

Conclusions: Although survey respondents represent a subset of those PM-exposed and unexposed, this strategy shows promise in reducing care partner burden and may improve other important care partner outcomes.

B195
Clinical Impact of Comprehensive Geriatric Assessment on an Acute Care of the Elders (ACE) Unit

M. G. Rydberg, P. P. Reddy, G. W. Clement, F. C. Diaz, D. H. Lynch, L. C. Hanson, J. A. Batsis. *The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Comprehensive geriatric assessment (CGA) is a multi-disciplinary evaluation of older adult patients. Outpatient CGA is proven to increase recognition of geriatric syndromes; however, CGA is rarely used inpatient. We describe frequency of CGA on our ACE unit, characteristics of patients selected, and subsequent interventions to understand how CGA impacts patient outcomes.

Methods: We conducted a structured medical record review for all ACE discharges between July and October 2023. Age, sex, pre-hospitalization residence, cognitive function, and frequency of CGA were collected. For each CGA, we recorded frequency of cognitive

testing, advance care planning (ACP), discharge planning, and interventions targeting nutrition, vision and hearing, and mental health.

Results: Among 338 consecutive patients discharged from the unit (58.3% female), 33.7% (114/338) had a CGA performed, with a mean age of 82 years and a similar gender distribution to the larger cohort. Patients in independent (50%, 11/22) or assisted living facilities (50%, 12/24) had higher rates of CGA completion than those living at home (35.4%, 83/234) or in skilled nursing facilities (SNF) (35.3%, 6/17). Patients with history of cognitive impairment were more likely to have CGA (50%, 37/74) than those without (32.2%, 77/239). Also, 56.1% (64/114) underwent cognitive testing of which 14% (16/114) were newly diagnosed with cognitive impairment. Recommended interventions focused on nutrition (11.7%), vision and hearing (5.4%), and mental health (7.1%). Discharge planning occurred in 70.5% (79/114), with a recommendation for a different discharge location than prior in 32.9% (26/79), typically SNF. ACP was noted in 78.9% (90/114). No changes in code status were recorded.

Conclusions: CGA was feasible on our ACE unit and resulted in an evaluation of ~33% of patients. Findings suggested that CGA was used more frequently in patients with cognitive impairment, yet structured cognitive testing identified undiagnosed impairment that had important implications in discharge planning. A future study will aim to increase frequency of explicit recommendations through provider-focused interventions.

B196
A Predictive Model of Patients most Likely to Benefit from the IMPROVE Pharmacotherapy Program

L. Xiao,¹ G. McGwin,² K. Manns,³ L. Kemp,³ D. Julien,³ A. Vandenberg,^{1,2} A. Mirk.^{1,2} *1. Emory University School of Medicine, Atlanta, GA; 2. Birmingham/Atlanta VA GRECC, Atlanta, GA; 3. Atlanta VAMC, Atlanta, GA.*

Background: IMPROVE (Integrated Management and Polypharmacy Review of Vulnerable Elders) is a Veterans Administration (VA) developed, evidence-based, pharmacist-led, patient-centered medication management program to promote safe prescribing and polypharmacy reduction for older adults. To best utilize the limited resource of individual pharmacist medication review, deprescribing interventions should target patient populations most likely to benefit. The literature is conflicting over which patient characteristics best predict successful deprescribing. We describe development of a predictive model to identify patients most likely to benefit from IMPROVE.

Methods: We conducted a retrospective chart review of 126 veterans with an IMPROVE visit from 01/2012 to 07/2021. All pharmacist actions and recommendations were coded, with each considered an “intervention”. We calculated: 1) total PharmD interventions, as a proxy for care need, and 2) medications stopped at the visit. We chose predictor variables available in the VA Clinical Data Warehouse. Negative binomial modeling examined associations between each variable and outcome to determine variables predicting “benefit” from an IMPROVE visit, defined as a higher total number of interventions and deprescribing actions.

Results: Patients were aged 64-98 years, mean 82; 98% male; 60% white, taking a mean of 16 (range 4-45) medications prior to the visit. Predictive modeling revealed the following factors associated with higher benefit from IMPROVE: new patient (p =0.002), mental health co-management (p=0.009), diagnosis of dementia (p=0.018), being married (p=0.036), prescribed an antipsychotic (p=0.04), and urban residence (p=0.04). Active Beers Medication (p=0.054) approached significance. In multivariate analysis, only new patient (p=0.008) and active Beers medication (p=0.013) demonstrate significant, independent associations. Age, race, ethnicity, number of medications, anticholinergic burden, health care utilization and diagnosis of cancer or diabetes did not predict benefits from IMPROVE visits.

Conclusion: We have identified key factors for the selection of high-risk older Veterans for IMPROVE visits, enabling VA clinical teams to leverage existing VA technology to reach Veterans most in need of medication management assistance from pharmacists.

B197 Resident Presentation

“4S” Non-verbal Communication Program to Enhance Empathy of Geriatric Providers

M. Kobayashi,¹ C. Brifkani,² S. Khan,² B. Son,² S. Schabel,² S. Rich,² A. Olinger,² S. Ryan.² *1. Rochester Regional Health, Rochester, NY; 2. Geriatrics Division, Rochester Regional Health, Rochester, NY.*

Background: Geriatric care and dementia care are sometimes challenging because it is difficult for healthcare workers to develop relationships with older adults or people with dementia primarily using verbal communication. Communication difficulties can result in the refusal of care, poor quality of care delivered to geriatric patients, increased burnout of healthcare workers, and decreased empathy for patients. Previous studies reported non-verbal communication skills are helpful to develop relationships between older adults and healthcare professionals. Authors came up with a new concept “4S” non-verbal communication program based on previous study. 4S stands for Shaking hands or hands on shoulder, Sitting and making eye contact, Smile and laugh, and Speaking calm and slow. We designed a quality improvement project to enhance Geriatrics providers’ empathy for older adults.

Methods: The pre-post intervention as a quality improvement project was conducted within the Rochester Regional Health System Geriatric Medicine Division. The project consists of division lecture on “4S” non-verbal communication, followed by 4S posters placed in work environments as visual reminders, distributing sticker with 4S, and every 2 weeks an educational email with a focus on each aspect of the 4S concept, including a video showing the interaction with a patient with dementia using 4S non-verbal communication. A total of 41 geriatric providers, including MDs, DOs, PAs, NPs, participated in the program for 4 months. Participants’ empathy was evaluated with the Jefferson Scale of Physician Empathy-Health Professionals Version before the training and after the training.

Results: The post-training response rate was 82.9%. From pre-training to post-training, the 4S non-verbal communication program increased the mean empathy score (from 116.2 to 119.2) of geriatric providers.

Conclusions: The 4S non-verbal communication program was associated with an improvement in geriatric providers’ empathy. These findings suggest that the program is useful in improving communication and relationships between Geriatric Medicine providers and geriatric patients.

B198

Patterns of Lecanemab Evaluation and Enrollment at an Academic Medical Center

D. N. Arteaga, J. Lavalliere, S. Ouedraogo Tall. *New York University Grossman School of Medicine, New York, NY.*

Background: On July 6, 2023, the U.S. Food and Drug Administration granted lecanemab full approval for the treatment of mild cognitive impairment or mild dementia due to Alzheimer’s disease (AD). Ensuring access to this novel, infusion-based therapy poses an evolving logistical challenge.

Methods: In this retrospective single-site study, we assessed patterns of lecanemab evaluation and enrollment in the first three months after the drug’s full approval. At our urban academic medical center, prerequisites for treatment include recent cognitive evaluation, MRI brain with screening for amyloid-related imaging abnormalities (ARIA), evidence of cerebral amyloid-β (Aβ) deposition and genetic testing for APOE. We measured time to first infusion for approved patients and time to completion for each protocol requirement.

Initiation of lecanemab evaluation marked day 0 in this analysis. We also assessed reasons for exclusion from treatment.

Results: Between July 6 and October 6 of 2023, 107 patients at a single outpatient memory center were evaluated for treatment with lecanemab. By the end of the study period, 27 of 107 (25%) patients met criteria for treatment. 11 of 27 (41%) eligible patients consented to treatment and were scheduled for first infusion. Average time to first infusion was 110 days. 13 of 27 (48%) eligible patients awaited formal consent for treatment, while 3 of 27 (11%) elected not to proceed with lecanemab. 25 of 107 (23%) patients were excluded from treatment. Common reasons for exclusion were disqualifying cognitive evaluation (32%), patient preference (28%) and cerebrovascular disease (12%).

Conclusion: In this study of lecanemab, we observed low rates of treatment eligibility and prolonged time to treatment initiation. Many patients were under evaluation or awaiting formal consent for treatment at end of the study period. Obtaining cerebral Aβ testing was particularly challenging. In light of evolving treatment options for AD, robust policies and protocols are required to ensure timely and equitable access to care.

Protocol Requirement	Complete Prior to Lecanemab Evaluation	Complete at End of Study Period	Days to Completion	
			Average	Interquartile Range
Cognitive Evaluation	5	70	39	0-52
Confirmation of Aβ Deposition	18	38	54	34-54
MRI Brain with ARIA Screening	3	34	54	15-58
APOE Genetic Testing	20	47	74	37-91

B199

INTERDISCIPLINARY EFFORT TO IMPROVE IDENTIFICATION OF DELIRIUM AND INCREASE MOBILITY IN A MEDICINE UNIT

H. Almadhoun, E. Franco Garcia, R. Gil, J. Rico, J. Willet, S. Levine. *Geriatric Medicine, Massachusetts General Hospital, Boston, MA.*

Background: Delirium is a serious condition causing acute changes in cognitive function and is associated with an increase in hospital length of stay (LOS). Data collected at our institution between 10/1/2021 and 9/30/2022, showed that 99.68% of adult hospitalized patients were screened for delirium using the confusion assessment method (CAM). Of those discharged from medical services, 12% were flagged as CAM positive and observed to have an increased average LOS of 7 days. In this project, we aimed to pilot an educational and mobility intervention in one medical unit to see if improving delirium and mobility training to nurses and patient care assistants (PCAs) would have a positive outcome on delirium recognition and increased mobility documentation.

Methods: Our goal was to train PCAs and nurses on the pilot unit on how to identify delirium and provide education to support a mobilization effort with the goal of mobilizing patients at least twice per day.

The brief, in-person education session given by a staff geriatrics clinician (MD or NP) and a physical therapist, included information on the importance of delirium and mobility and the use of the Johns Hopkins Highest Level of Mobility (JH-HLM) Scale. It also included visual reminders to the house staff about using a previously developed delirium order-set and how to place the order when appropriate.

Results: Fifty-three out of 56 (95%) nurses received training. 100% of the 129 patients age 65 or older admitted to a general medicine unit were screened for delirium using the CAM tool, of which 14% screened positive for delirium between July 1st and Oct 31st, 2023. On average, 67% of all CAM+ patients had a delirium order set recorded in their medical record, up from 7% utilization pre-intervention. Post-intervention, mobility was captured 85% of the time using the JH-HLM scale, previously captured at a rate of 15%. Each patient was mobilized on average 1.9 times a day.

Conclusions: Studies show that delirium is preventable and improving patient's mobility is a viable intervention. Our project targeted to interdisciplinary team members demonstrates that implementing a standard education in delirium and mobility and using standardizing documentation via the use of CAM and JH-HLM scales improves the utilization of order-sets and mobility documentation. We continue to collect data to see the impact on delirium incidence.

B200 Student Presentation

The Influence of Hearing Loss and Race on Healthcare Satisfaction Among Older Adults: An Analysis of Medicare Beneficiaries

L. Palmieri Serrano,¹ E. Garcia-Morales,^{2,3} S. Assi,^{2,3} E. Oh,⁴ N. Reed,^{2,3} E. Kolberg,^{2,5} I. Nova Southeastern University Dr Kiran C Patel College of Allopathic Medicine, Fort Lauderdale, FL; 2. Johns Hopkins Cochlear Center for Hearing and Public Health, Baltimore, MD; 3. Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD; 4. Medicine, Johns Hopkins University School of Medicine, Baltimore, MD; 5. Otolaryngology, The Johns Hopkins University School of Medicine, Baltimore, MD.

BACKGROUND: Hearing loss (HL) is prevalent among older adults and associated with poorer healthcare satisfaction. This may be related to issues with communication challenges inherent to healthcare settings. Race, also correlated with healthcare satisfaction, may modify this association. The purpose of this study was to assess the impacts of race on associations between self-reported hearing difficulty and healthcare satisfaction.

METHODS: 2019 Medicare Current Beneficiary Survey (N=21,373) was used to build regression models adjusted for socio-demographic and health covariates and stratified by race (White non-Hispanic, Black non-Hispanic, and Hispanic). Impacts to association between self-reported HL (no, a little, or a lot of trouble) and healthcare satisfaction were assessed. Three domains of satisfaction were used (overall quality, information provided on condition, and doctor's concern about health) and modeled both dichotomously (satisfied, dissatisfied) and ordinally (very satisfied, satisfied, dissatisfied, very dissatisfied).

RESULTS: Among Medicare beneficiaries (mean age=74 years), 46% reported a little or a lot of trouble hearing. White individuals reporting a lot of trouble hearing had lower odds of satisfaction with medical care (Odds Ratio [OR]=0.45, 95% Confidence Interval [CI]: 0.32-0.62), information provided about condition (OR=0.71, 95% CI:0.53-0.95), and physician's concern with their overall health (OR=0.54, 95% CI:0.53-0.95) compared to those who reported no trouble. Trends involving other racial groups reporting trouble hearing also showed lower likelihoods of reported satisfaction, though results were non-significant.

CONCLUSIONS: Study findings support research indicating that patients with HL, regardless of race, are less likely to report healthcare satisfaction. Future research in non-white populations is necessary and satisfaction investigations should expand focus to racially diverse populations.

B201

Comparing Provider Impression of Cognition with Standardized Screening in Medicare Annual Wellness Visits

L. Flink,² C. Azzolino,¹ B. Ng,¹ D. Hovern,¹ B. Salzman,¹ L. R. Hersh,¹ S. Parks.¹ I. Thomas Jefferson University, Philadelphia, PA; 2. Penn Medicine, Philadelphia, PA.

Background: Diagnosing dementia is challenging in the primary care setting, where interactions are brief and patients present with multiple concerns. The Mini-Cog®, a standardized screening test, was historically used in our institution to screen for cognitive impairment during Medicare Annual Wellness Visits (AWV). However, the Mini-Cog® was recently replaced with providers documenting their

overall impression of a patient's cognitive status. Cognitive impairment is often underdiagnosed¹, especially in populations of disadvantaged racial and socioeconomic backgrounds². Our study is designed to determine if provider gestalt sufficiently detects impaired cognition during AWV.

Methods: This study is IRB approved. Patients at a geriatric practice provided consent to participate. Prior to seeing a provider, a medical assistant administers the Mini-Cog®. Providers then conduct the AWV and document their impression of the patient's cognition. Both providers and patients are blinded towards Mini-Cog® results. Results are categorized as normal (5), low-risk (3-4), or high-risk (0-2).

Results: 46 Mini-Cogs® are compared with provider's impression. The mean age of participants is 74 years. 74% identified as female and 70% as Black. Discrepancies are found in 15 patients (32.6%), where providers reported no concern for cognitive impairment, yet Mini-Cog® score placed 9/15 patients in low-risk and 6/15 in high-risk categories for possible cognitive impairment. Provider impressions were concurrent with Mini-Cog® for 30 patients.

Conclusion: The removal of Mini-Cog® for cognitive assessment leaves AWV without an objective measure for cognition other than provider's gestalt. Results show that provider impression alone is not adequate to screen for cognitive deficits. Given that a 32.6% discrepancy was found among geriatricians, this may be higher in primary care providers.

References:

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B202

Optimizing Pneumococcal Immunization Rates in an Academic Geriatrics Practice with a Multifaceted Intervention

B. A. Acevedo-Mendez, J. Lee, O. Bansode, P. Solomon, E. Burns. Division of Geriatrics and Palliative Care, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, New Hyde Park, NY.

Background:

Older adults have the greatest risk of serious illness and death from pneumococcal disease. In the United States, pneumococcal vaccines have been available for decades, but rates of vaccination remain suboptimal. In 2021, the CDC reported that coverage with > 1 dose of any type of pneumococcal vaccine (PV) among adults aged > 65 years was 65.8%. The coverage among Whites aged ≥65 years (70.1%) was higher than Blacks (54.8%), Hispanics (46.2%), or Asians (55.8%). We report PV rates for eligible patients at a Geriatrics practice before and after interventions to improve performance, documentation and potentially reduce disparities in PV status.

Methods:

Setting: Academic geriatrics practice involving faculty and fellow's patients.

Outcome: change in rates of PV pre-post interventions.

Intervention: Initial education of faculty and fellows to offer PV during appointment, document past vaccinations if received or deferral of PV. A documentation algorithm for workflow was provided. Secondly, reminders of the department goal of a rate 77%, re-education, and feedback on performance were performed.

Measures: Patient self-reported age, sex, race, ethnicity. Quarterly PV compliance rates for 2023 abstracted from EMR. First quarter (Q1) was baseline, Q2 post-first intervention, Q3 post-second intervention (ongoing).

Results:

Overall Q1 (baseline) PV rates were 63.1%, 67.1% in Q2 (post intervention 1), and 71.7% in Q3 (post second intervention). Rates for females were 66.4%, 67.4%, and 72.4%; rates for males 66.7%,

66.6%, and 70.3%. Rates of PV for Blacks or African American race were 66.7%, 65.9%, and 67.7%. Rates for Asian race was 64.7%, 62.2%, and 67.8%. Rates for Hispanic or Latino ethnicity were 58.6%, 61.6%, and 66.0%. This contrasted to non-Hispanics at 68.9%, 67.5%, 72.3%, respectively. Those with unknown gender and race had rates of 61.0%, 66.7%, and 73.3%.

Conclusion:

Increasing provider awareness through education, workflow adjustments and feedback on performance are simple interventions that may positively impact PV rates. Awareness that Hispanic and Blacks had lower PV rates at baseline may help address future disparities in vaccine uptake and possible solutions.

B203

Deprescribing in a Long Term Care Patient Population: A Quality Improvement Project

M. Schmees, G. Ruff, J. Drost, N. Kayani. *Geriatric Medicine, Summa Health System, Akron, OH.*

Background: The prevalence of adverse drug events increases with age, with twice as many older adults hospitalized due to adverse drug events. Adverse drug events contribute up to 6.5% of admissions. In-hospital adverse drug events increase length of stay by up to 9%, and up to 60% of nursing home residents continue to experience adverse drug events. The Screening Tool of Older Persons' Prescriptions (STOPP) and Screening Tool to Alert to Right Treatment (START) are criteria that were developed for clinicians to help identify potentially inappropriate medications and potential prescribing omissions in older adults. This project analyzes whether applying the STOPP/START tool to long term care patients will result in a reduction of potentially inappropriate medications being prescribed or a reduction of potential prescribing omissions.

Methods: The long term care census under a single practice was accessed via the facility-based EMR (Point-Click Care) and a geriatric medicine fellow reviewed the medication list for each patient at the facility between October 2023 and November 2023. The fellow utilized the STOPP/START protocol to determine any inappropriate medication.

Results:

Demographics:

Total Patients 52 (37 female)

Age range 55-102 years (81.06 average)

Medication (Meds) data:

Patients with no medication changes identified 14 (26.9%)

Total number of meds per patient 5-27 (14.5 median)

Meds stopped per patient 0-4 (1 median)

Meds stopped per patient with any meds stopped 1-4 (2 median)

Meds started per patient 0-1 (0 median)

Meds changes per patient 0-5 (1 median)

Conclusion: There was an average of 1.5 medication changes per patient after implementation of the STOPP/START protocol. This finding suggests that the application of a standardized tool could improve and optimize long term patient care. Opportunities for further studies could include patients in other long term care settings.

B204 Student Presentation, Encore Presentation

Feasibility of a patient portal intervention to enhance shared decision making

R. Singh,² F. Tang,^{1,2} S. Dang,^{1,2} D. Ruiz.¹ 1. GRECC, Miami VA Healthcare System, Miami, FL; 2. University of Miami Miller School of Medicine, Miami, FL.

Background: Perimenopausal women would benefit from a better understanding of symptoms, associated conditions, and appropriate therapy options, to participate in shared decision-making (SDM) with providers. We implemented a quality improvement pilot educational intervention called “My HealtheVet to Enable And Negotiate

for Shared decision-making” (MEANS) using the Veterans Affairs (VA) patient portal MyHealtheVet (MHV). The guiding framework for this MEANS intervention was the modified Three Talk Model of Shared Decision Making for Clinical Practice.

Purpose: Here, we examine the effect of the MEANS intervention on SDM and MHV use.

Methods: Intervention participants received weekly Secure Messages (SM) via MHV with relevant information. We enrolled 269 women from Miami VA Healthcare System (MVAHS) in the intervention; 160 of them completed a six-month questionnaire regarding their perception of impact on SDM and use of MHV. Participants average age was 53.2 years; 42.4% white, 43.1% black, and 24.2% Hispanic; 63.2% had a college education, and 95.9% already used MHV.

Results: Before MEANS, 29 (18%) of the participants had used SM to discuss menopause with their provider, which increased significantly to 65 (41%), after the intervention (p<0.01); 39% reported they had discussed hormone therapy with their provider, and 13 (8.1%) started taking hormone therapy. Post-intervention, of the 160 participants, 57.5% reported that MEANS allowed them to get information that would otherwise be difficult to obtain, 79% said it increased their understanding of menopause and its treatments, 80% felt more confident to discuss these treatments with their provider. Moreover, 73 (45.6%) discussed osteoporosis, 51 (31.9%) had a DEXA scan, 77 (48.1%) started taking calcium, and 124 (77.5%) started taking Vitamin D; 52 (32.5%) discussed urinary incontinence with their provider and 61 (38.1%) started doing Kegel's exercise. Of the 91 women whom we have SM use data on, 39 (43%) women read >50% of the messages sent to them, while 28 (31%) women read 10%-49%, 8 (9%) women read <10%.

Conclusions: This pilot patient portal intervention shows that patient portals may offer a feasible and scalable tool to enhance SDM regarding menopause and related sensitive topics among racially/ethnically diverse women. This may be a strategy to enhance communication for other non-urgent conditions as well between patients and providers.

B205

Implementation of an Age-Friendly Inpatient Delirium Workflow Across a Health Network: Description and Early Outcomes

M. Mihok,¹ J. E. Malone,² K. Lawrence,¹ L. Weinberg.¹ 1. Division of Geriatrics, Allegheny Health Network, Pittsburgh, PA; 2. Nursing Education and Professional Practice, Allegheny Health Network, Pittsburgh, PA.

Background: Delirium is common in hospitalized older adults and is associated with poor functional outcomes and high costs. Prior to 2022, Allegheny Health Network (AHN), a full-spectrum health network serving the Western Pennsylvania region, lacked a standardized protocol for delirium screening and management. An evidence-based, nursing-centric screening and Age-Friendly Health Systems 4Ms-focused management tools were implemented.

Methods: In 2021, an interprofessional workgroup on delirium comprised of physician, nursing, pharmacy, therapy, and informatics leaders was assembled. In 2022, the Stanford Proxy Test for Delirium (S-PTD) was integrated into nursing shift workflows for patients age 65+. Positive screens triggered electronic medical record (EMR) guidance on nursing best practices. An optional order set was developed to optimize provider response, prioritizing non-pharmacological interventions. Educational materials for caregivers were created. Metrics were tracked via automated EMR reports.

Results: 16,632 admissions were screened in the first 3 months and 18,593 at year 1 following workflow implementation. The average rate of positive delirium screens across all hospitals increased from 12.5% to 14.5% in year 1. Utilization of the provider order set per positive screen increased from 4.3% to 7.4% in year 1. The hospital with the lowest delirium rates across year 1 (6.1%-8.9%) has a

well-established multicomponent delirium prevention program. The hospital with the highest delirium rates (20.3-25.8%) had minimal utilization of the provider order set. Delirium rates were most stable across year 1 (11.9%-12.5%) at the hospital where the order set was utilized most consistently.

Conclusions: Standardization in delirium assessment was achieved across 10 hospitals. The overall rate of positive delirium screens trended up, indicating the need for increased focus on prevention. Utilization of the provider order set was low but increased as providers gained familiarity with the tools. Barriers to implementation included nursing turnover, limitations of the S-PTD, and dissemination of the provider tools. Opportunities exist to further engage staff and hospital leaders in Age-Friendly delirium prevention and management strategies.

B206

Limited Evaluation After Abnormal Mini-Cog Screen in AWW

J. R. Shaikh, U. Tawbi, M. Feldman, J. Aiken, K. S. Agarwal.
Medicine, Baylor College of Medicine, Houston, TX.

Background:

An evaluation of cognitive symptoms is required in the Medicare Annual Wellness Visit (AWV). Our academic primary care clinics have an AWV template using a Mini-Cog screen. Our Age-Friendly Health System champions are working on methods to facilitate cognitive evaluations and wanted to determine what happens after an abnormal Mini-Cog screen result so that we can build on current workflows and encourage optimal care.

Methods:

Report from EMR identified patients with Mini-Cog results recorded in an Annual Wellness Visit (AWV) in primary care clinics between January and September 2023. Retrospective chart audit of 48 randomly selected charts with an abnormal Mini-Cog score (0-3) was performed. One half of patients with each abnormal score (0-2) were randomly chosen for review in addition to 10 with scores of 3. Abstracted information includes demographics, practitioner type, if PCP had knowledge of result, if follow-up visit occurred, and if abnormal score was addressed with a dementia evaluation.

Results:

1611 patients had Mini-Cog documented during AWVs: 85 with score 0-2 consistent with dementia (5.3%) and 163 (10%) had score of 3 for possible MCI. Of 48 patients randomly selected with abnormal scores, 46 charts were accessible. 67% (31) were female. Average age was 72 years and 91% non-Hispanic of which 64% (27) were black and 23% (10) were white. The Mini-Cog was performed by physician in 19 charts (41%) and by nurse in 27 (58%). 2 patients with a score of 2 had a prior history of dementia.

Only 2 (4%) of 44 pts without known history of dementia had follow up of abnormal Mini-Cog scores and were referred to neurology. For the remaining 42 patients, 2 had acknowledgement of abnormal but no actions taken to address evaluation for dementia, and 40 had no other evaluations for dementia including cognitive testing, laboratory / imaging orders, or medication changes. Of 40 without actions, 22 were seen by PCP at least twice following AWV. 12 were seen once, and 6 had not seen PCP since AWV. No significant difference in follow up was seen when Mini-Cog was performed by MD or RN.

Conclusion:

Cognitive screening is an important part of AWVs. Our study indicates that although Mini-Cog assessment is consistently done as part of the AWV in our clinics, an abnormal score does not prompt providers to pursue further assessment. Providers and patients may benefit from EMR prompts and tools to facilitate further evaluation for dementia.

B207

Barriers and Benefits to Telehealth in Virginia: a Survey of Congregate Communities

M. Mathew, T. Flickinger, A. Nappi, D. Gordon, A. Ryall, S. Collins, K. Wibberly, L. Archbald-Pannone. *University of Virginia, Charlottesville, VA.*

Background

During COVID-19 public health emergency (PHE), telehealth provided patients access to healthcare, despite limitations to in-person care. The rise of telehealth raised important questions of optimal use in healthcare settings. Congregate care communities are comprised of medically vulnerable individuals with higher rates of infection, morbidity, and mortality. We assessed perceptions of congregate care facility staff on telehealth use, benefits, and barriers in Virginia (VA) before, during, and after the PHE.

Methods

Our study team created a survey to assess perceptions of telehealth in congregate care communities in VA, as well as use of telehealth before, during, and after PHE. The survey solicited actual (for those who used telehealth) and perceived (for those who did not use telehealth) benefits and barriers of telehealth. We distributed the online survey through established professional networks July- September 2023. Respondents were eligible if actively working in a congregate care community in VA. Survey participation was voluntary. Completion of the survey was considered consent to participate.

Results

There were 71 completed surveys by staff in 34 of the 35 of VA health districts. Telehealth use was reported by 31% of respondents before the PHE; 78% during PHE; and 60% following PHE. The most common actual benefits reported were improved family/caregiver satisfaction (45%); improved resident access to clinician (57%); and decreased unnecessary transport of residents (52%). The most commonly reported perceived benefits were improved family/caregiver satisfaction (48%); improved resident access to clinician (48%); and decreased unnecessary transport of residents (48%). The most common actual barriers reported were poor connectivity (42%) and lack of consistent workflow (28%). The most common perceived barriers reported were expense of technology (40%) and poor connectivity (36%).

Conclusions

This survey provides an assessment of perceptions of congregate care communities throughout VA on use of telehealth. While the perceived and actual benefits were similar, the actual barrier of need for consistent workflow highlights the importance for implementing systems to ensure optimal application of telehealth within facilities. These finding will inform future quality improvement projects to support congregate care settings in successful implementation of telehealth.

B208 Student Presentation

Comparison of end-of-life care delivered to patients treated by allopathic versus osteopathic physicians: a retrospective observational study

Y. Tamada,¹ H. Gotanda,² D. B. Reuben,³ A. M. Walling,³ D. S. Zingmond,³ C. L. Damberg,⁴ N. S. Wenger,³ H. Xu,³ Y. Tsugawa.³ *1. Preventive Medicine, Nagoya Daigaku, Nagoya, Japan; 2. Cedars-Sinai Medical Center, Los Angeles, CA; 3. University of California Los Angeles, Los Angeles, CA; 4. RAND Corporation, Santa Monica, CA.*

Background: Although allopathic and osteopathic schools developed independently, both produce physicians with full scope of practice. This study aimed to compare end-of-life (EOL) care patterns for patients treated by allopathic and osteopathic physicians.

Methods: We used cross-sectional data of a 20% random sample of fee-for-service Medicare beneficiaries who died in 2016–2019.

Using regression models adjusted with physician and patient characteristics, we estimated the differences in the outcome measures for patients treated by allopathic versus osteopathic physicians. Our outcomes included eight EOL care-related measures largely divided into (i) advance care planning (ACP) and palliative care and (ii) high intensity care at the EOL. To account for multiple comparisons, *P*-values were adjusted with the Holm method.

Results: Of 306,335 decedents, 240,907 (78.6%) were treated by allopathic physicians and 65,428 (21.4%) by osteopathic physicians. There was no evidence of differences in the outcomes for patients treated by allopathic versus osteopathic physicians: billed ACP (14.1% vs. 14.5%; *P* > 0.999), palliative care counseling or hospice use in the last 180 days of life (62.4% vs. 62.2%; *P* > 0.999), emergency department visits in the last 30 days of life (57.0% vs. 56.9%; *P* > 0.999), hospital admissions in the last 30 days of life (50.9% vs. 50.4%; *P* = 0.314), intensive care unit admissions in the last 30 days of life (27.3% vs. 27.2%; *P* > 0.999), mechanical ventilation or cardiopulmonary resuscitation in the last 30 days of life (14.5% vs. 14.4%; *P* = 0.791), placement of feeding tubes in the last 30 days of life (1.4% vs. 1.4%; *P* > 0.999), and death in acute care hospital (20.9% vs. 20.4%; *P* = 0.126).

Conclusions: This study did not find evidence on the differences in the EOL care quality for patients treated by allopathic and osteopathic physicians.

B209 Resident Presentation

Optimization of a Patient Identification Process within a Geriatric Emergency Department at a Veterans Affairs Medical Center

A. Holder,^{1,2} A. Dylewski,^{1,2} W. Bryan,^{1,2} M. Pepin,^{1,2} R. Owenby,¹ A. McKnight.^{1,2} 1. *Pharmacy, Durham VA Health Care System, Durham, NC*; 2. *Durham VAHCS Geriatric Research, Education, and Clinical Center, Durham, NC*.

Background: The Durham VAHCS has a level-1 ACEP-accredited, interdisciplinary Geriatric Emergency Department (ED).¹ High-risk geriatric patients meeting criteria for a medication review by a Clinical Pharmacist Practitioner (CPP) are identified by a screening technician's chart alert to the CPP for review. This project created a clinical dashboard to identify cases for CPP review.

Methods: This was a single center, retrospective chart review post-dashboard implementation on August 1, 2023. Included patients were 75 years or older, discharged home from the ED, either screened positive on Identification of Seniors at Risk (ISAR) tool with 10 or more scheduled medications, or had a positive falls screen with orthostatic vitals or a high-risk medication. The objectives were to determine the number of patients eligible for CPP review from the automated dashboard process and to compare objective identification to reliance on a human screening process. Descriptive statistics were utilized.

Results: Preliminary results of three months post-dashboard implementation revealed that of 83 dashboard-identified patients, 72 patients (87%) were eligible for CPP review. The remaining 11 patients were excluded due to inpatient admission. The CPP was alerted by the screening technician to conduct a medication review for 20 of the 72 eligible patients (28%). The most notable missed opportunity for review was related to patients on high-risk medications, specifically 29 of the 72 patients (40%).

Conclusions: Preliminary data on objective dashboard identification of high-risk geriatric patients for pharmacist review revealed more than triple the number of identified, eligible patients compared to reliance on human processes. The patients most likely to be missed in human processes were those on high-risk medications. Final results to follow.

References:

1. Geriatric Emergency Department Accreditation Program (GEDA). ACEP.org. Accessed September 30, 2023. <https://www.acep.org/geda/>.

B210

Implementation of STOP and WATCH Early Warning Tool in a Skilled Nursing Facility

M. Fazel, B. Wong, J. Lyu, S. Leonard, H. Tran, V. Wong. *Geriatrics, University of California Los Angeles, Los Angeles, CA*.

Background: Nursing home residents are at high risk for hospital readmissions. The STOP and WATCH Early Warning Tool was created by a quality improvement program called INTERACT (Interventions to Reduce Acute Care Transfers) to improve care and reduce emergency room visits and rehospitalization. The method was used by certified nursing assistants to help better identify and communicate changes in conditions of residents with their supervisors.

Aim Statement: Increase awareness of the STOP and WATCH Early Warning Tool for nursing staff at a community nursing home in Los Angeles.

Methods: Pre- and post-surveys were created to assess participants' familiarity with the STOP and WATCH tool. Participants were then recruited for intervention, mainly targeting certified nursing assistants and licensed vocational nurses who work morning and afternoon shifts. Participants were asked to listen to a 10 minute overview of the STOP and WATCH tool.

Results: 38 participants completed the pre-intervention survey, and 17 participants attended the intervention and completed the post-intervention survey. Participants were recruited to complete the pre-intervention survey via a QR code that was posted in break rooms and via announcements by nursing supervisors. Our pre-intervention survey showed that 80% of participants were already familiar with STOP and WATCH Early Warning Tool. After the intervention, 88% of the 17 participants were very confident in implementing the tool in their care of patients and indicated they would use it. 94% of participants felt the tool would be helpful in their care of patients.

Conclusions:

The STOP and WATCH is a useful measure to alert nursing staff to a change in a resident's clinical status. Enhanced awareness and utilization of this tool can improve quality of care and reduce rehospitalization risk. Future projects should be aimed at integrating the tool into the electronic health record and monitoring if its use will result in reducing rehospitalizations.

Resources

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B211 Student Presentation

REAssessing Cholinesterase Inhibitors and Memantine in Long-Term Care (REACH LTC)

S. Raval,¹ C. Tan,^{2,3} C. Fan-Lun,^{4,5} K. Piggott.^{6,7} 1. *University of Toronto Temerty Faculty of Medicine, Toronto, ON, Canada*; 2. *Division of Geriatric Medicine, University of Toronto, Toronto, ON, Canada*; 3. *Division of Clinical Pharmacology, University of Toronto, Toronto, ON, Canada*; 4. *Department of Pharmacy Services, Sunnybrook Health Sciences Centre, Toronto, ON, Canada*; 5. *Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, ON, Canada*; 6. *Division of Geriatric Medicine, Sunnybrook Health Sciences Centre, Toronto, ON, Canada*; 7. *Institute of Health Policy, Management & Evaluation, University of Toronto, Toronto, ON, Canada*.

Background: The AGS Choosing Wisely Recommendations and Choosing Wisely Canada highlight the importance of periodic reassessment for benefits and risks of ongoing cholinesterase inhibitor (ChEI) therapy.¹ This is not routinely occurring in Ontario Long-Term Care (LTC) homes, where 54% of older adults are taking ChEIs at

the time of death.² The goals of our project are to: 1) improve rates of ChEI/memantine reassessment at Sunnybrook Hospital's Veterans Centre from its baseline of 5% to 30% by May 2024, 2) for appropriate candidates, trial deprescription in 30% by May 2024, and 3) develop a model for implementation of ChEI/memantine deprescribing guidelines that can be adapted in other LTC settings.

Methods: A chart review, direct observation of quarterly medication reviews, and physician surveys were completed. We also conducted semi-structured stakeholder interviews with leadership, physicians, registered nurses, pharmacy, social work, and patient caregivers. The primary outcome is the percentage of residents with a reassessment of their ChEI/memantine. The secondary outcome is the percentage of candidates for deprescription who undergo a dose reduction.

Results: All physicians agreed that ChEI/memantine reassessment and deprescription is an important aspect of providing care yet they reported a lack of training in deprescribing these medications and knowledge of deprescribing resources. Other key barriers to reassessment and potential facilitators were identified and PDSA cycles are underway for high yield interventions. These include deprescribing algorithm development, clinician evidence summary, patient and family support package, and integration into quarterly medication reviews.

Conclusions: Our QI study is the first to implement these recommendations in LTC, where the risks of ChEIs/memantine are more likely to outweigh benefits compared to community settings. This model for implementation can then be scaled and spread to LTC centres across Canada and the US.

B212

Comparing Parkinson's disease care between internists and geriatricians.

K. Stanco,¹ B. De Lima,¹ m. brooks,¹ S. Neukam,¹ L. Neilson.^{2,3}
 1. *General Internal Medicine & Geriatrics, Oregon Health & Science University, Portland, OR;* 2. *Portland VA Medical Center, Portland, OR;* 3. *Neurology, Oregon Health & Science University, Portland, OR.*

Background: Patients with Parkinson's disease (PWP) often have complex medical needs that require care beyond the scope of a primary care provider. Neurologist care has shown lower rates of skilled nursing facility admissions and mortality among PWP¹ but access is a problem when neurologist density is low. We sought to understand how care for PWP differs between geriatricians and internists.

Methods: A retrospective analysis of PWP from Oregon Health & Science University's Internal Medicine Clinic aged ≥40 years from 2017-2022. Patients with ICD-10 code G20.x on their problem list were stratified into two groups – geriatrician or internist – based on their primary care provider's training. We created a composite score using six quality metrics: dopamine-blocking medication use, rehabilitative therapy referral, depression/anxiety screening, sleep assessment, cognitive screening, and advance care planning. An ordinal mixed effects model adjusting for age and complexity using the Charlson Comorbidity Index (CCI) was used to compare each group. Follow-up logistic mixed effects models identified the quality metrics that differed between groups.

Results: Among 185 PWP, 88.6% identified as White and 55.1% as male. Patients of geriatricians were older (78.9 vs. 73.0 years) and more complex (CCI 1.46 vs. 0.93) than patients of internists (p<0.001). The odds of meeting one additional quality metric were 1.98 times greater for a PWP of a geriatrician compared to an internist, controlling for patient complexity and age (p=0.002). This is despite internists' PWP seeing neurologists more often (median 1.5 visits annually vs. 1.0, p=0.03). Follow-up analyses found that geriatricians were more likely than internists to perform depression or anxiety screening, cognitive screening, or refer for therapy services.

Conclusions: Geriatricians provided more comprehensive care to PWP than internists despite being older, more medically complex, and with less neurologist support.

1. Willis AW, Shootman M, Evanoff BA, Perlmutter JS, Racette BA. Neurologist care in Parkinson disease: a utilization, outcomes, and survival study. *Neurology* 2011;77(9):851-7. DOI: 10.1212/WNL.0b013e31822c9123.

B213 Resident Presentation

Characterization of Pharmacist Practice in a Veterans Affairs (VA) Community Living Center (CLC)

A. Dylewski,^{1,2} A. Holder,^{1,2} A. McKnight,^{1,2} M. Pepin,^{1,2} W. Bryan.^{1,2} 1. *Pharmacy, Durham VA Health Care System, Durham, NC;* 2. *Durham Geriatric Research Education and Clinical Center, Durham, NC.*

Background: In accordance with Centers for Medicare & Medicaid Services requirements for long-term care (LTC) facilities, Clinical Pharmacist Practitioners (CPPs) assess medications monthly for potential medication-related concerns or optimization. This project characterizes current practice in a single VA CLC.

Methods: This is a retrospective chart review of CPP notes in a VA CLC between June 1, 2022, and May 31, 2023. Notes were excluded for acute hospitalization within 30 days. Primary endpoints include number of recommendations by type and drug class. Secondary endpoints include acceptance rate, response documentation, interval medication changes, and differences in endpoints based on admission length and age. Results are characterized by descriptive statistics.

Results: A preliminary sample analysis of 101 of 389 total notes identified an average of 3.6 recommendations per short-stay patient and 8 per long-stay patient. Of 17 patients, 12 (70.6%) were Black/African American, and the remainder were White. Recommendations were most common for immunizations (25%), vitamin/mineral supplementation (14.6%), antihyperglycemics (11.5%), and antihypertensives (8.3%). Most common recommendation types included further monitoring (35.4%), discontinue (17.7%), decrease dose (10.4%), and initiate (10.4%). Of 96 recommendations, 56 (58.3%) were accepted. Of recommendations not accepted, 17.5% had no confirmed review by provider, 12.5% had documented acceptance but no implementation, and 7.5% were deferred to primary provider. Most recommendations not implemented were conditional (82.5%).

Conclusions: CPPs commonly recommended changes to chronic medications, with a majority being accepted. Many recommendations not accepted or implemented may have been discussed but lacked documented response. Omission in documentation may be related to documentation outside of notes, coordination of care, or implied confirmation. Reassuringly, majority of recommendations without acceptance were conditional and not critical to result in change of care plan. Future directions in improving recommendation acceptance include improving communication and follow-up between CLC staff.

B214

What is a "good death"? Clinician perceptions of End of Life Care in a Veterans Administration Intensive Care Unit.

J. Duran,¹ W. Roush III,² A. Mirk,^{1,2} L. Marcewicz,² D. Kavalieratos.¹
 1. *Emory University School of Medicine, Atlanta, GA;* 2. *Atlanta VA Health Care System, Brookhaven, GA.*

Background

Approximately one in five deaths occurs in the intensive care unit (ICU). As such, understanding and improving the quality of end-of-life (EOL) care provided in this setting is a public health concern. This quality improvement (QI) project explores clinician-perceived factors that may affect EOL care within a single Veterans Administration (VA) ICU in Atlanta, Georgia, with the goal of identifying areas for intervention to improve patient and family centered EOL care.

Methods

Semi structured qualitative interviews with 11 multidisciplinary ICU team members (2 Social Workers, 4 Registered Nurses, 2 Respiratory Therapists, 1 chaplain, 1 ICU physician and 1 Palliative Care physician) were conducted virtually by a single investigator trained in qualitative methods, and transcribed verbatim. Interview domains included perceptions of high-quality EOL care, perceptions of EOL care at VA, hand off and post death care, and perceived areas for improvement. Two investigators independently coded and used thematic analysis to identify factors related to EOL care in the Atlanta VA.

Results

Across clinicians of varying disciplines and roles, we heard consistent and recurring themes, which included: lack of communication among clinicians and families, continuity of care affected by change in clinical team caring for patient, operational errors within electronic medical records leading to delayed care, staffing limitations, varying levels of experience in EOL care, and family dynamics and communication. Potential solutions included providing knowledge and awareness of resources for EOL care to clinicians and families. Limitations include the single-site nature of this study, which affects the transferability of these findings to other institutions.

Conclusion

Recurring themes based on clinician perceptions of EOL care within the Atlanta VA system identified multiple factors that may affect EOL care in the ICU in addition to identifying potential solutions to improve and facilitate EOL care for both patients and families. Results will facilitate identification and implementation of discrete QI interventions within this ICU setting.

B215 Resident Presentation**Recheck Blood Pressure? Check! *The Impact of Emphasizing Confirmatory Blood Pressure in a Geriatric Clinic***

K. Murphy,¹ C. Hood,¹ K. Dirisalab,² M. Bowen,¹ R. Vigen,¹ P. Bajaj,¹ J. Voit.¹ 1. *Internal Medicine, The University of Texas Southwestern Medical Center, Dallas, TX*; 2. *Population and Data Sciences, The University of Texas Southwestern Medical Center, Dallas, TX*.

Background:

Checking a confirmatory blood pressure (BP) when the first measurement is elevated helps ensure accurate identification of controlled versus uncontrolled blood pressure. Previous studies have demonstrated that multiple measurements are needed to accurately reflect a patient's true BP. This is especially important for older adults, when overtreatment of hypertension may lead to side effects and reduced quality of life.

Methods:

We conducted a quality improvement project in the Internal Medicine (IM) Department at the University of Texas Southwestern (UTSW). A quality metric for the IM department in fiscal year 2023 included improving confirmatory BP measurement when the initial reading was $\geq 140/90$. An electronic dashboard was created to track confirmatory BP readings across the department of IM, which allowed individual clinics to easily monitor their rates of confirmatory BP. An initial email was sent to clinic leadership in September 2022, with an educational infographic to help staff with workflow as it pertains to repeating BP. Monthly follow-up newsletters were sent to provide performance updates. Our team also conducted intermittent outreach to low performing clinics to improve workflows.

Results:

From September 2022 to August 2023, the Geriatric Care Center (GCC) had a total of 4,008 outpatient encounters with 1,744 of those encounters having an elevated BP on initial check. During the study period, the average monthly confirmatory rate increased from 24.1% to 81.4%. On average, approximately one third of encounters with an elevated BP subsequently had an improvement in BP to less

than $<140/90$ on recheck. The hypertension control rate in the GCC increased from 54.2% in September 2022 to 68.8% in August 2023.

Conclusion:

With the implementation of the department level intervention, the GCC had an increase in confirmatory BP measurements and improvement in hypertension control rates. With more patients reclassified as normotensive, unnecessary pharmacotherapy is potentially avoided, which is especially important in older adults. Overall, this project demonstrates that successful system-level interventions driven by departmental leadership can improve confirmatory BP measurements and control rates in a geriatric medicine clinic.

B216**Methadone Maintenance Therapy and Mortality in Hospitalized Older Adults**

C. Akartuna, R. Amin, S. Yi, R. Lazarus, S. Ajmal, E. A. Nemytova. *New York University Grossman School of Medicine, New York, NY*.

Background: Methadone has been at the forefront of treatment of opioid dependence since the 1960s. Aging inherently alters physiological processes which potentially can affect metabolism of methadone, raising risk of adverse effects in this susceptible population. The potential association between adverse events with methadone use and aging have not been well studied. This study aims to determine the all-cause mortality and cardiac mortality in hospitalized older adults on methadone maintenance therapy (MMT) and to investigate the dose of methadone with incidence of QT prolongation.

Methods: We reviewed the electronic medical records of older adults hospitalized at an urban safety net hospital between the years of 2018 and 2021. We included patients aged 65 and older, who were placed on MMT while inpatient. We conducted a retrospective chart review to find the home dose of methadone, the regimen used while inpatient and to determine the number of patients who died during the admission. Collected data included cardiac events, QT interval and use of other QT prolonging medications.

Results: A total of 173 admissions fulfilled the inclusion criteria, of these 128 (74%) were male and 45 (26%) were female. 110 patients (64%) were aged 65 to 69, 56 patients (32%) were aged 70 to 79, and 7 patients (4%) were older than 80. 102 admissions (59%) had a prolonged QTc that was defined as greater than 440 ms for males and 460 ms for females. Patients with prolonged QTc were on a wide range home methadone doses from 5 mg to 230 mg. All-cause mortality was 6.9% (12/173) while cardiac mortality was 4.1% (7/173). Out of these 7 patients, 5 had prolonged QTc and 3 were on additional QT prolonging medications.

Conclusion: Our study showed hospitalized older adults on MMT had a mortality rate of 6.9%. According to data from the 2010 National Hospital Discharge Survey, hospitalized adults aged 65 and older had an inpatient all-cause mortality rate of 3.9%. Substance Abuse and Mental Health Services Administration panel concludes that there is a casual relationship between methadone and QT prolongation; however, there is no consensus regarding a cut-off dose. Our study suggests a relation between increased mortality and MMT in older adults and future studies should focus on furthering the data in this population.

B217**Beers' list alerts help reduce antipsychotic and benzodiazepine prescribing in hospitalized older adults**

L. McNicoll,^{1,3} k. Chatellier,⁴ J. Monteiro,³ D. McKaig,⁴ J. McCarthy,⁴ A. Kashmanian,⁴ M. Singh.² 1. *American Geriatrics Society, Providence, RI*; 2. *Brown University, Providence, RI*; 3. *Medicine, Brown University, Providence, RI*; 4. *Lifespan Health System, Providence, RI*.

Background: Hospitalized older adults are at high risk of being prescribed Beers' List medications. As part of the Age Friendly Initiative, we identified 2 categories of medications that were being

prescribed at higher-than-average rates using the Vizient database. In this quality improvement study, we analyzed the impact of a clinical decision support tool (CDS) in the electronic medical record (EMR) in a large tertiary hospital on in-hospital prescription rates of antipsychotic (AP) and benzodiazepine (BZD) medications.

Methods: We created alerts that activated when AP or BZD medications were prescribed to hospitalized adults aged 65 or older. The alerts provided rationale for avoiding the medication as well as alternatives for various indications. Alerts were activated in the EMR at a system level in June 2022. In a pre-post design set up and using the Vizient database, we compared overall hospital-wide prescription rates of BZD (including BZD-receptor antagonists (Z drugs)) and AP (typical and atypical) medications between baseline (October 2020 - September 2021) and post intervention (July 2022 -June 2023) periods.

Results: The number of older adults in the baseline and post-intervention periods were 12,580 and 11,870 respectively. For both AP and BZD, the general medicine, neurology, and trauma service lines were most likely to prescribe these medications. Overall rates of in-hospital AP prescriptions decreased from 21.58% (typical 10.12% and atypical 12.67%) to 19.65% (typical 7.28% and atypical 12.38%) representing a 8.9% decrease (p=0.0002). Similar decreases were seen for in-hospital BZD prescription rates with baseline at 23.88% (BZD 22.78% and Z drugs 1.10%) to 21.03% (BZD 19.87% and Z drugs 1.15%) for a 11.9% decline (p<0.00001).

Conclusion: Our study shows that a simple strategy of using Beers' List informed medication alert CDS which remind providers of the potential risks of AP and BZD use is feasible at a system level. Its use along with the Inclusion of alternative safer options can potentially result in a decline in AP and BZD in-hospital prescription rates. Use of the Vizient Potentially Inappropriate Medications report with an EMR based CDS such as ours can help Age Friendly hospitals monitor and benchmark the use of AP and BZD.

B218

Offering Personal Amplifiers to Those with Hearing Impairment in a Geriatrics Outpatient Setting: Patient Satisfaction and Impact on Referrals

A. Flowers, S. Yi, E. A. Nemytova, S. Ajmal. *New York University Grossman School of Medicine, New York, NY.*

Background:

Hearing impairment is common in older adults, with a third of adults over 65 years and half of adults over 75 years affected. Hearing loss has been shown to negatively impact patient-provider communication. Little research has evaluated the outcomes of interventions to address hearing impairment in a geriatric outpatient setting. Offering the use of a portable personal amplifier in a geriatrics clinic was studied to determine the impact on patient satisfaction and referrals.

Methods:

We offered patients the use of a pocket talker, a portable personal amplifier with a microphone and headphones, if they had a history of hearing difficulty or demonstrated hearing impairment during their visit, for a total period of 16 months. Those that used the device completed a post-visit survey which included a question on how they would grade the visit using the amplifier on a 0-10 Likert scale. We then completed chart review to collect demographic data and outcome measures including ENT and Audiology referrals initiated at any point after the visit. Total visit time was used as a balancing measure.

Results: A total of 103 individuals completed the post-intervention surveys at least once in 16 months. The average score on the 0-10 scale of satisfaction with the encounter was 9.0, and 76% of respondents chose this as the score. 53 patients (52%) were referred to audiology, and 31 (30%) were referred to ENT. 48 (47%) patients either already had hearing aids prior to their visit or received them after the visit during which they used a personal amplifier. Total visit time of a regular visit was 123 minutes and total visit time with use of a personal amplifier was 118 minutes. 50% of respondents were Hispanic.

The average age of patients was 82, and 52% were female. The demographics of the patients who used the personal amplifiers in the clinic were similar to the typical patient demographics at Bellevue hospital.

Conclusion: This initiative demonstrated that patients were highly satisfied with use of a personal amplifier, it did not increase total visit time, and after their use of an amplifier in clinic, patients were more likely to have audiology and ENT referrals than prior to their use of the device in clinic.

B219

Development of a Fall Risk Assessment Dashboard using Natural Language Processing

Z. Burningham,^{1,4} J. Leng,^{1,4} J. Bell,^{1,4} C. Callaway-Lane,² S. Wingard,² M. Johnson,² D. A. Ganz,³ J. Douglas,³ J. Kramer.³

1. Informatics, Decision-Enhancement and Analytic Sciences Center of Innovation, Salt Lake City VA Medical Center, Draper, UT; 2. Geriatric Research Education and Clinical Center, Veterans Affairs Tennessee Valley Health Care System, Murfreesboro, TN; 3. Geriatric Research Education and Clinical Center, Veterans Affairs Greater Los Angeles Medical Center, Los Angeles, CA; 4. Internal Medicine, The University of Utah School of Medicine, Salt Lake City, UT.

Background: The Veterans Affairs (VA) Geriatric Scholars Program (GSP) is a national workforce development initiative aimed at improving the quality of care older Veterans receive in VA interdisciplinary primary care settings. The GSP includes intensive didactics, a quality improvement (QI) workshop, and mentorship during completion of a local QI project. Participants are introduced to the American Geriatrics Society (AGS) recommendation that older patients be screened for falls, annually. To meet the need for patient-level data to inform QI implementation by Geriatric Scholars, we developed a Fall Risk Assessment Dashboard (FRAD) using Natural Language Processing (NLP).

Methods: Our NLP approach determines whether a fall screening was performed during a primary care encounter using clinical notes extracted from the VA's Corporate Data Warehouse. We used a word embedding and cosine similarity analysis for text pattern detection, followed by the development of a library of regular expressions that perform classification. Human chart review served as a reference standard to evaluate NLP performance (n=1,060 notes). Positive Predictive Value (PPV), sensitivity, and F-measure were estimated. The FRAD was developed using Microsoft Power BI.

Results: The NLP approach achieved a PPV of 0.961 (0.941-0.976), sensitivity of 0.896 (0.867-0.920), and F-measure of 0.927 (0.911-0.943). The FRAD is supported by an extract, transform, and load (ETL) workflow that applies the NLP generated regular expressions and refreshes the data daily in support of continuous quality improvement. The FRAD displays the proportion of older patients in need of their annual fall screening by panel, with drilldown to the individual level.

Conclusions: We have developed an NLP approach that measures primary care fall risk screening performance. This NLP approach has been integrated into a near-real time clinical dashboard that allows clinical end users the ability to identify patients in need of action.

B220 Resident Presentation

Patterns of Physical and Chemical Restraint Use in Delirium

E. Luterstein,¹ E. Franco Garcia,² R. Gil,¹ S. Levine.²

1. Massachusetts General Hospital, Boston, MA; 2. Geriatric Medicine, Massachusetts General Hospital, Boston, MA.

Background: Physical and chemical restraint use in the setting of delirium in the geriatric population has been associated with negative outcomes including increased length of stay (LOS) and increased mortality. This retrospective analysis of chemical and

physical restraint use on an inpatient medicine unit may help inform future initiatives to both prevent and manage delirium while minimizing restraint use.

Methods: Consecutive patients older than 65 admitted to a single general medicine inpatient unit between January and August of 2023 and found to have a positive Confusion Assessment Method (CAM) score on delirium screening were included in this retrospective patient chart review. This was a small representative subset of an original cohort of nineteen thousand patients. Exclusion criteria included baseline advanced dementia, hepatic encephalopathy, isolated ICU delirium, and delirium in the setting of end-of-life care, and 26 of 51 patients that were CAM positive were ultimately excluded.

Results: 25 patients met inclusion criteria and had an average age of 83 and an average LOS of 13 days. 40% of patients had hyperactive delirium, 20% had hypoactive delirium, and 40% had mixed delirium. Physical restraints were used in 44% of patients, including soft 2 or 4 point, hard 4 point, and lap restraints. A mean of 3 restraint orders was used per patient, averaging a total of 32 hours during admission. Chemical restraints were used in 52% of patients, with multiple agents tried in 24%. A higher than recommended initial dose of antipsychotics was used in 32% of patients (defined as haloperidol >1mg, olanzapine >2.5mg, quetiapine >25mg, or trazodone >25mg). Both chemical and physical restraints were used in 40% of patients. 1:1 observation was utilized in only 4% of cases.

Conclusions: Results show that chemical restraints are used in more than 50% of patients, often with high initial doses; physical restraints are initiated concurrently with chemical restraints in nearly half of patients; and 1:1 observation is underutilized (often due to lack of available personnel). This chart review suggests physical restraint ordering, chemical restraint dosing, and involvement of 1:1 sitters as potential areas for systematic intervention.

B221

Frailty assessment in management protocols of elderly persons admitted from the emergency department to the orthopedic surgery unit for fragility hip fracture at the McGill University Health Centre

C. Pavoni,¹ X. Ji,² T. Stoesz,³ D. Kindrat,¹ L. Rosenthal,⁴ J. Falutz.¹
 1. Geriatric Medicine, McGill University Health Centre, Montreal, QC, Canada; 2. Internal Medicine, McGill University Health Centre, Montreal, QC, Canada; 3. McGill University Faculty of Medicine and Health Sciences, Montreal, QC, Canada; 4. McGill University Health Centre, Montreal, QC, Canada.

Background

Older patients with frailty are at higher risk of post-operative complications, and early frailty identification via rapid screening tools may reduce adverse outcomes¹. The Clinical Frailty Scale (CFS) can accurately assess geriatric-specific perioperative risk². The aim of this study is to 1) evaluate the effect of frailty on patients with fragility hip fractures, and 2) to better assess the interrater reliability (IRR) of CFS scoring between clinicians.

Methods

A retrospective chart review was performed in patients over age 75 requiring emergent hip surgery at the Montreal General Hospital. 3 independent reviewers assigned CFS scores using the Comprehensive Geriatrics Assessment (CGA). Krippendorff's alpha determined the IRR. Adverse outcomes included risk of transfer to long-term care (LTC) determined by Odds Ratio (OR), and the difference in length of stay (LOS) and 30-day mortality between frail and non-frail patients, determined by ANOVA.

Results

88 patients were assessed: 21 non-frail (CFS 1-4), 41 mild to moderately frail (CFS 5-6), and 26 severely frail (CFS 7-8). Krippendorff's alpha was 0.79. The OR for risk of transfer to LTC was

3.56 (p=0.23). There was a non-significant increase in LOS as frailty, but not age, increased. 30-day mortality was highest for those severely frail, with 5 deaths (19%), without significant differences between frailty groups.

Conclusion

Frailty, reliably defined retrospectively using the CFS, may better predict adverse post-operative outcomes in older patients with fragility hip fractures than age. High IRR can be achieved in perioperative CFS scoring. With further data collection ongoing, there is expected an increase in study power and significance.

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B222

Short-term outcomes of patients enrolled in a single center “Home Hospital” program

W. P. Botheju, J. S. Breton. *Department of Geriatrics and Continuum Services, Virginia Commonwealth University Health System, Richmond, VA.*

Background:

Hospitals continue to face challenges with capacity and an overwhelming demand of patient inflow which inevitably leads to a variety of complexities such as missed opportunities for patients requiring higher acuity level care, prolonged stays in the Emergency department or transfers to other hospitals. With approval from the CMS Acute Hospital Care at Home Waiver, a single center hospital facing these challenges launched a “Home Hospital” program in January 2023. The program was designed to provide inpatient level care for low acuity patients in the comfort of their homes with a goal of maintaining patient-centered, high quality safe care. Nationally, costs are 20-30% lower for this at-home inpatient care compared to brick-and-mortar.

Methods:

Data was obtained through EHR-based reports that included various data points and metrics such as patient demographics, primary diagnosis codes, Case Mix Index (CMI), length of stay, and escalation rates. Patient satisfaction scores were assessed via MyChart and Press Ganey surveys.

Results:

Since its implementation in January 2023, the program enrolled 101 patients during the initial 6-month period. Average patient age was 68.6 years. The 3 most common diagnoses encountered were respiratory infections, sepsis and congestive heart failure exacerbations and these accounted for almost 60% of the admissions. The mean length of stay in Home Hospital was 4.2 days, which meant that 424 extra bed days were created in the brick-and-mortar hospital in the first six months of the program. 92.1% of the patients completed their inpatient stay at home without having to return to the brick-and-mortar and those who returned did so for a variety of reasons ranging from clinical instability to planned transfers. CMI for the first 6 months was 1.4. Patient satisfaction surveys were overwhelmingly positive.

Conclusions:

The collaborative and innovative “Home Hospital” can potentially serve as a cost-effective means of providing highly satisfying and safe low-acuity inpatient care for patients in the comfort of their home while increasing brick-and-mortar capacity. As the program continues to expand and mature, there are numerous opportunities to treat nuanced patient populations such as post-operative patients and cancer patients undergoing routine chemotherapy regimens that are usually administered in the inpatient setting.

B223 Student Presentation

Mobility Assessment on Geriatric Patient Movement

L. Shteynman,¹ L. Stewart,² D. Martorana,² S. Abbasi,² L. Strano-Paul.¹ *1. Stony Brook University Renaissance School of Medicine, Stony Brook, NY; 2. Stony Brook Medicine, Stony Brook, NY.*

Background

Prolonged bedrest in hospitalized patients of advanced age contributes to complications including cardiac and musculoskeletal deconditioning, delirium, pressure ulcers, nosocomial infection, and risk of Deep Vein Thrombosis. These issues culminate in increased length of stay and cognitive decline. Bolstering mobilization of patients may prevent deconditioning and adverse outcomes of hospitalization. The purpose of this study is to determine whether assessment of patient mobility using the Bedside Mobility Assessment Tool (BMAT) improves inpatient mobilization frequency of geriatric patients at Stony Brook University Hospital.

Methods

The BMAT scale was used to monitor the mobility of 29 patients on an inpatient Internal Medicine floor with a mean age over 65 and low discharge turnover. Criteria for movement contraindication (cardiac, respiratory, and neurological status) were considered. Daily, nurses assigned each patient a BMAT score from 1 to 4 and logged distance walked or movement performed. Data was tracked May through August 2023. Patient refusal and orders for bedrest were noted. Differences in mobilization frequency among those who did and did not receive scores were quantified via Chi Square test and Odds Ratio.

Results

Distribution of BMAT scores was stable over a 3-month period, indicating reliability and consistent BMAT interpretation. Between 62% and 100% of patients were mobilized daily. May saw an average of 85.27% patients assigned a score, June saw 86.11%, July saw 88.89%, and August saw 86.73%. 58.8% mobilized patients received a score, while 40.7% of mobilized patients did not. A chi-square test ($\chi^2(1) = 5.83, p < 0.0158, \phi = 0.14$) determined a statistically significant association between mobilization and receiving a BMAT score, with odds of mobilization increased by 2.08 times for those receiving BMAT scores.

Conclusion

Because patients who received a BMAT score were more likely to be mobilized, implementation of mobility assessment via scoring may contribute to increased mobilization and minimized bedrest complications. Studies should examine how education can ensure consistency of scoring and regularity of mobilization. Future research should identify barriers of care to achieving daily mobility, such as time constraint. Mobility assessment promotes additional monitoring and therefore may contribute to safe hospital stays and decreased falls.

B224

Chronic Kidney Disease Burden and Impact on Major Bleeding Risk in Older Adults with Atrial Fibrillation

H. O. Abu,⁴ F. Fernandez del Castillo,³ W. Wang,¹ M. Tisminetzky,¹ T. Paul,¹ J. Mehawej,¹ E. Zimmons,⁴ R. Goldberg,¹ C. Kiefe,¹ J. Saczynski,² J. Gurwitz,⁴ D. McManus.¹ *1. UMass Chan Medical School, Worcester, MA; 2. Northeastern University, Boston, MA; 3. Nephrology Division, Reliant Medical Group, Worcester, MA; 4. Geriatric Medicine Division, UMass Chan Medical School, Worcester, MA.*

Background: In patients with atrial fibrillation (AF), comorbid chronic kidney disease (CKD) may increase their bleeding risk. We examined CKD burden in older adults with AF and its impact on major bleeding.

Methods: Patients aged ≥ 65 years with AF were enrolled in a multicenter cohort study from clinics in Massachusetts and Georgia between 2016 and 2018. Renal function was assessed with GFR values

at enrolment: G1: ≥ 90 (normal), G2: 60-89 (mild CKD), G3a/3b: 30-59 (moderate CKD), and G4/G5: ≤ 29 (severe CKD to end stage renal disease (ESRD)). Major bleeding events were derived from electronic medical records and patient interviews at one-year follow up; and defined as symptomatic bleed in a critical area (intracranial, spinal, ocular, pericardial, articular, retroperitoneal, or intramuscular), hemoglobin drop of ≥ 2 g/dL, requiring ≥ 2 units of whole blood transfused, or fatal bleed. The association between CKD and major bleeding risk was examined with stepwise logistic regression adjusted for sociodemographic (age, gender, race, marital and educational status); clinical (AF type, prior ablation, anticoagulation use, antiplatelet therapy, HASBLED score, heart failure, diabetes, cancer, anemia); and geriatric (frailty, depression, social isolation, cognitive impairment) variables.

Results: Patients (n=1,244) mean age was 75 years, 48% were women, and 86% were White. Overall, 25% had normal GFR, 44%-mild CKD, 28%-moderate CKD, and 3%-severe CKD to ESRD. About 8% (n=105) had a major bleeding event. After adjusting for sociodemographic variables, patients with moderate CKD (aOR: 1.87; 95% CI:1.02-3.44) and severe CKD to ESRD (aOR: 4.35; 95% CI:1.53-12.32) had an increased risk of major bleeding than those with normal GFR. After further adjustment for clinical and geriatric variables, only those with severe CKD to ESRD had a significantly higher risk of major bleeding (aOR: 3.38; 95% CI:1.10-10.59).

Conclusions: In managing older adults with AF and comorbid CKD, healthcare providers should be increasingly aware of their major bleeding risk especially with severely impaired renal function and independent of anticoagulation or antiplatelet therapy.

STUDENT & RESIDENT POSTER SESSION C

Friday, May 10

2:45 pm – 3:45 pm

C1 Student Presentation

Once in a Lifetime...Type of rash...

E. Z. Hu,¹ T. Kremmayer,¹ K. Cruz Madrid.² *1. University of Illinois Chicago, Chicago, IL; 2. Geriatrics, Jesse Brown VA Chicago Healthcare System, Chicago, IL.*

Introduction: Geriatric patients who present with a rash can be clinically challenging. The initial approach generally; requires a detailed history and a complete examination. At times, these rashes can mimic common diseases, but can also be related to unusual diagnosis that requires additional testing (laboratories, skin biopsy, etc.)

Case Description: A 66-year-old female with history of T2DM, HTN, diabetic neuropathy, and venous insufficiency, came to the clinic with a two-week-history of lower extremity ulcers; accompanied by a sharp, continuous pain, self-rated as 10/10, that radiated to the rest of her limbs. Labs for vasculopathy and vascular flows were sent and reported within normal limits. Her diabetes and blood pressure were controlled. Wound care and Dermatology were consulted. After two weeks the ulcers had gotten larger, more painful, and the patient was tachycardic, with chills, but no fever. Antibiotics, debridement, and coverage of wounds were added to her treatment, oriented by culture results. Punch biopsy showed: focal evidence of subcutaneous capillary wall mineralization, consistent with localized non-uremic-calciphylaxis (NUC). Also seen: microangiopathy and venous/capillaritis in the upper dermis. During six months she received intensive pain control, Trental, close monitoring of her diabetes and blood pressure with same regimen, and daily wound care. Slowly, the patient's ulcers healed and closed. Although she, has deep scars with palpable calcifications and tenderness to touch, she feels well and follows up with us in geriatrics regularly.

Discussion: Nonuremic calciphylaxis is a very rare diagnosis characterized by non-healing skin ulcers secondary to arterial calcification and thrombosis in patients without end-stage renal disease. NUC has an undefined pathophysiology, a high mortality rate (52%) most often caused by sepsis (50%) and is diagnosed by cutaneous biopsy. Recommended treatment modalities are limited and involve wound care, pain management, infection control, and minimization of risk factors.

C2 Student Presentation

Hypertension Control Complicated by Presence of Pheochromocytoma in an Older Adult

E. C. Chopra, J. Cheng. *VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA.*

Background: Pheochromocytomas are rare neuro-endocrine tumors which typically reside in the adrenal glands (85%), typically benign, and secrete catecholamines. Classically, pheochromocytoma manifests with the following 4 characteristics: headaches, palpitations, diaphoresis, and severe hypertension. Generally, they are diagnosed between the ages of 30 and 50 years of age in equal numbers between men and women, and typically thought to be extremely rare in the geriatric population. In about a third of the cases, pheochromocytomas may be inherited in an autosomal dominant pattern and some inherited cases occur as part of multi-organ, systemic syndromes. Overall, pheochromocytomas are thought to occur in less than 1% of all cases of hypertension, but their true incidence is not known since many cases likely remain undiagnosed.

Methods: A 79-year-old man who underwent a CT enterography for a colitis work-up at the West Los Angeles Veterans Administration Hospital and found to have a left adrenal nodule. His past medical history was significant for long-standing uncontrolled hypertension, type 2 diabetes, and obstructive sleep apnea. He was restarted on amlodipine with improved control of his blood pressure. Lab evaluation demonstrated mildly elevated plasma and 24-hour urine metanephrines. Patient had follow-up imaging with gallium-68 DOTATATE PET/CT which showed intense tracer uptake in the left adrenal nodule favoring the diagnosis of a neuroendocrine tumor.

Results: The patient underwent a left adrenalectomy with pathology confirmed pheochromocytoma. Despite normalization of plasma metanephrine levels after surgery, the patient continued to have elevations in his blood pressure requiring escalation of therapy to three anti-hypertensive medications.

Conclusions: This case illustrates that although rare in the geriatric population, pheochromocytoma should be considered in the differential diagnosis of older individuals with hypertension. Unlike in younger patients who typically experience resolution of their pheochromocytoma related signs and symptoms, our older patient experienced a different course with continued challenging control of his hypertension likely related to age-related arterial wall stiffness. This case reinforces that multimorbidity has a significant role in management of systemic conditions in older adults.

C3 Student Presentation

Hypercalcemia in a sexagenarian—a diagnostic dilemma

N. Rana,¹ S. Rana.² *1. Case Western Reserve University, Cleveland, OH; 2. VA Pittsburgh Healthcare System, Pittsburgh, PA.*

Background: Hypercalcemia, although a relatively common clinical problem, can present a diagnostic challenge in older adults when multiple potential etiologies may come into play and must be evaluated in a systematic manner.

Methods: A retrospective clinical case review.

Results: We present the case of a 60yo woman of South Asian descent who presented for a routine preventative exam, with her last one having been completed 5 years ago without concerns. She had h/o high grade DCIS of the breast resulting in bilateral mastectomy

12 years ago and tubular adenomas of the colon resected earlier in the year, as well as a family h/o osteoporosis and fractures in her mother resulting from surgical menopause. She was otherwise in good health and asymptomatic. She was noted on routine labs to have mild hypercalcemia of 10.8(8.4-10.3mg/dl) in setting of normal albumin levels and mild Vit D deficiency of 27.3ng/ml. Intact PTH was 61.7 pg/ml (11-68pg/ml). She completed an 8-week course of high dose Vit D followed by maintenance dose supplementation. She also underwent breast MRI to rule out the possibility of recurrent malignancy in residual breast tissue, results were not worrisome. Repeat calcium levels reflected continued mild elevation at 10.6mg/dl. DEXA was done and showed osteoporosis. She was referred to Endocrinology, additional workup was completed with repeat calcium levels remaining elevated at 11.1 mg/dl, improved Vit D levels at 45.8 mg/dl, and significantly elevated 24h urinary calcium levels at 451mg/dl (100-250 mg/24h). Although several potential etiologies for hypercalcemia were at play, primary hyperparathyroidism was explored. A thyroid ultrasound was completed which raised suspicion for a left superior parathyroid adenoma and was subsequently confirmed by a parathyroid scan.

The patient underwent successful parathyroidectomy with improvement of her lab profile.

Conclusion: This case is reflective of multiple etiologies that could have contributed to this patient's hypercalcemia, i.e. vitamin D deficiency, malignancy, and primary hyperparathyroidism. Timely evaluation and treatment of hypercalcemia is paramount in avoiding multisystem complications, including osteoporosis as in this case for which the patient was already predisposed.

It is important to consider a comprehensive approach to clinical evaluation and lab abnormalities in an older adult as it is likely that more than one etiology may be contributory as illustrated by our case.

C4 Student Presentation

An Atypical Presentation of Polymyalgia Rheumatica

E. Mullane,¹ P. Coll.^{1,2} *1. University of Connecticut School of Medicine, Farmington, CT; 2. UConn Health Center on Aging, Farmington, CT.*

Background: Polymyalgia rheumatica (PMR) is an inflammatory disease primarily affecting those >50 years of age. Diagnosis relies on clinical signs, symptoms, and lab markers of inflammation such as C-reactive protein (CRP). The most common symptoms include pain and morning stiffness in the shoulder and pelvic muscles, fatigue, fever, and weight loss. While these symptoms represent the typical presentation, several cases have been reported with atypical features. Here we report a case of PMR in an 86-year-old male who initially presented with dizziness.

Case Description: An 86-year-old male with a history of benign positional vertigo (BPV) began to experience significant dizziness. He was evaluated by ENT who noted the "Patient states that when he extends his head posteriorly, he will get some dizziness. He is also complaining of some significant neck pain posteriorly." The patient was referred to neurology. Before that visit, he was seen by his PCP in geriatrics who thought he might have BPV. An Epley maneuver was performed, and a brain MRI was ordered that showed "Nonspecific white matter FLAIR hyperintensities that are probably age-related or chronic microangiopathic in nature." He was then seen by neurology who noted "He describes a constant sensation of lightheadedness and unsteadiness" and referred to PT for vestibular therapy. A month later the patient reported that "Late at night and getting up every morning I suffer from heavy legs, moderate pain in both wrists and arms, and severe stiffness and general weakness. All this goes away during the day, and I feel quite fine in the afternoon/evening." CRP was markedly elevated at 54.9 mg/L. He was started on prednisone 20 mg/day with near-immediate resolution of symptoms. His CRP dropped to ≤ 0.4 mg/L. Subsequently, his prednisone dose has been tapered to 4 mg/day. He remains independent, active, and PMR symptom free.

Conclusion: PMR should be considered when an older adult presents with dizziness and neck pain for which there is no clear cause.

C5 Student Presentation, Encore Presentation
Anifrolumab in Two Elderly Patients with Refractory Discoid Lupus Erythematosus

R. Karagenova,^{1,2} H. Timlin.³ 1. *Medicine, University of Hawai'i at Manoa John A Burns School of Medicine, Honolulu, HI*; 2. *Geriatric Medicine and Gerontology, Johns Hopkins University, Baltimore, MD*; 3. *Rheumatology, Johns Hopkins University, Baltimore, MD.*

Background: Discoid lupus erythematosus (DLE) accounts for 50-85% of cases of cutaneous lupus erythematosus (CLE).¹ Anifrolumab, a human monoclonal antibody against IFNAR1, received FDA approval for systemic lupus erythematosus (SLE) in 2021. We present the response and tolerability of anifrolumab in two elderly patients with DLE. **Methods: Case 1.** A 69-year-old African American woman presented with refractory DLE characterized by scarring alopecia. She failed to improve on hydroxychloroquine, mycophenolate mofetil, methotrexate, azathioprine, betamethasone cream, and prednisone. She required intralesional triamcinolone injections every 2-3 months. The patient started on anifrolumab infusions once monthly. **Case 2.** A 65-year-old African American woman with DLE characterized by scarring alopecia failed treatment with hydroxychloroquine, prednisone, mycophenolate mofetil, and clobetasol cream. The patient started on anifrolumab infusions once monthly. **Results: Case 1.** By the third month of infusions with anifrolumab, the patient's symptoms improved without further hair loss. She had one UTI that resolved with antibiotics. Triamcinolone injections were halted, and she was tapered off prednisone. **Case 2.** Seven months after initiating anifrolumab, the patient is improving well and is tapering off prednisone. Both patients tolerated anifrolumab without severe infections. No adverse effects were reported by either. **Conclusions:** The combination of older age² and SLE³ increases the risk of infections and therapy-related adverse events. We present two cases of DLE patients who failed multiple immunosuppressants but responded to anifrolumab. These patients had no serious infections. Further clinical trials should formally evaluate the response and tolerability of anifrolumab in older DLE patients.

References

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C6 Student Presentation
An atypical case of nonbullous pemphigoid after years of well-controlled classic bullous pemphigoid

S. Parkinson, D. Culton. *Dermatology, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC.*

Background

Bullous pemphigoid (BP) is the most common autoimmune blistering disease that primarily affects elderly individuals and classically presents as pruritic urticarial plaques and tense subepidermal blisters on normal or erythematous skin. In contrast, nonbullous pemphigoid (NBP) is a variant of pemphigoid characterized by intense pruritus in the absence of blisters. NBP without the hallmark bullae is challenging to diagnose and its inconspicuous nature leads to significant delay in presentation and treatment initiation resulting in increased patient morbidity.

Case Report

A 74 y.o. female with a six-year history of classic BP who was well controlled on methotrexate 7.5mg weekly and topical clobetasol 0.05%, presented with two weeks of intense pruritus and "mosquito-like bites". She denied recent vaccines, illness or medication changes. Physical exam was notable for nonspecific skin-colored 1-2mm papules on the hands, arms, legs, and trunk with no appreciable bullous lesions or eczematous patches. Patient was applying previously effective clobetasol without relief. Biopsy was taken for direct and indirect immunofluorescence, showing linear deposits of C3 and IgG at the basement membrane zone and autoantibodies against the epidermal side of the salt split skin at a titer of 1:160. These lab findings in combination with a lack of blister formation supported the diagnosis of NBP. She was started on a 3-week prednisone taper with resolution of symptoms until her pruritus and papules recurred at a tapered dose of 5mg. Prednisone was increased to 10mg daily for two additional weeks and once again, symptoms returned at a tapered dose of 5mg. Throughout this time, she was applying clobetasol multiple times a day. Methotrexate dose was increased to 10mg weekly with subsequent reduction in itch without reappearance of papules.

Discussion

Our case highlights a unique presentation of NBP refractory to previously effective clobetasol and tapered doses of systemic steroids. The near complete resolution of our patient's symptoms with an increased methotrexate dose provides support for it being a beneficial treatment. Ultimately, this case underscores the need for continued heightened awareness for the potential manifestation of NBP after years of well-controlled classic BP and that providers should have high clinical suspicion for NBP in an elderly patient with chronic refractory pruritus.

C7 Student Presentation
A Complex Case of Delirium Due to Pneumococcal Meningitis

Q. Hu,¹ L. Zhong,¹ J. O. Jaeger.² 1. *University of Connecticut School of Medicine, Farmington, CT*; 2. *UConn Health, Farmington, CT.*

Introduction: Delirium is a common disease affecting 14-56% of hospitalized older adults and can have myriad etiologies including infection.¹ Pneumococcal meningitis is a rare, highly fatal disease with variable presentation in older adults and a case-fatality rate of about 17% in the same population.² This is a rare case of pneumococcal meningitis in an older adult with unknown pneumococcal vaccination status presenting with delirium.

Case Description: A 97-year-old community-dwelling cognitively intact mildly frail multimorbid male presented to the Emergency Department (ED) for unresponsiveness. En route, the patient had tonic-clonic movements in all extremities. In the ED, the patient was febrile, lethargic, and delirious with no other neurologic abnormalities. Admission labs included elevated white blood cell count with left shift. CT scan of the head and cervical spine showed no acute findings. Electroencephalogram showed diffuse background slowing without epileptiform discharges. The patient ultimately was diagnosed with *S. pneumoniae* bacteremia in the setting of pneumococcal meningitis based on blood and cerebrospinal fluid cultures. While inpatient, he completed a course of steroids and received IV vancomycin, which was deescalated to ceftriaxone after culture data showed corresponding sensitivity. Over the next 3 weeks, the patient exhibited significant decline and passed away while receiving palliative care.

Discussion: Pneumococcal meningitis is no longer a common disease due to the increase in pneumococcal vaccination rates for all age groups; however, it still poses a threat to vulnerable older adults due to its varied presentation in this population and relatively high mortality rate. This patient had an unremarkable history of neurological problems and unconfirmed vaccination status, which may have influenced disease progression. While delirium is common in older adults, meningitis is an uncommon cause. Promptly considering,

recognizing, and treating this cause of delirium can lead to better patient outcomes. This case highlights the importance of pneumococcal vaccine immunization and to consider bacterial meningitis in the differential diagnosis of older patients presenting with delirium.

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C8 Student Presentation

HICCUP! Atypical Presentation of COVID-19 in an Older Adult: A Case Report

G. Montlouis,^{2,1} C. Kuttner,^{1,2} E. Phung.^{1,2} 1. VA Medical Center Wilmington, Wilmington, DE; 2. School of Osteopathic Medicine, Rowan University, Stratford, NJ.

With the onset of COVID-19 sweeping the nation, there has been numerous reports of rare and unusual presentations of the disease course. Of particular interest, intractable hiccups as a main and only symptom of COVID-19 has been one of those unusual presentations. Hiccups are known to be a spasmodic contraction of the diaphragm and other respiratory organs with a subsequent closure of the glottis. Typically, hiccups resolve within minutes, however intractable or lasting hiccups can last for days or weeks and may require treatment. A 74 year old male with multiple comorbidities presented with 2 episodes of vomiting and then intractable hiccups after a possible COVID-19 exposure. Patient was noted to be COVID positive after a nasal swab.

Throughout the course of his infection, the patient’s main and only symptom was noted to be persistent hiccups. Patient was treated with Omeprazole with no improvement, however after a pharmacology consult decision was made to prescribe a short course of Metoclopramide with complete resolution of hiccups.

Although Metoclopramide has demonstrated glowing success in treating COVID-19 induced hiccups in some case reports, there have been numerous other medications that have also been successful in treatment of this atypical symptom, such as chlorpromazine. Hiccups as a main presenting sign of COVID-19 is rare with unknown etiology, however is manageable with a patient-centered approach when choosing medication. Further observation studies may be indicated to evaluate the effectiveness of Metoclopramide over other pharmacotherapeutic options when treating COVID induced persistent hiccups.

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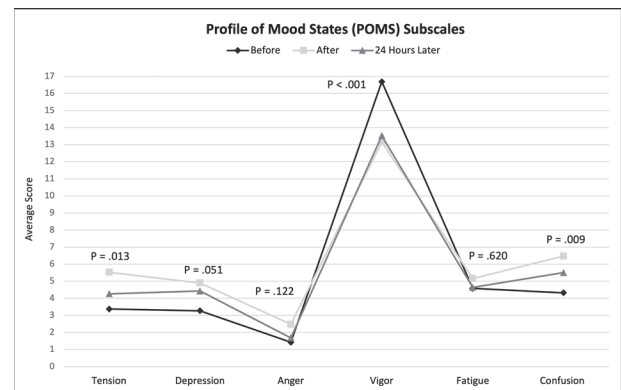
C9 Student Presentation

Effects of the Otago Exercise Program on the mood of older adults.

A. Nagel,¹ J. Pandey,² H. Otani.³ 1. Health Professions, Central Michigan University, Mount Pleasant, MI; 2. Pathology, Central Michigan University College of Medicine, Mount Pleasant, MI; 3. Psychology, Central Michigan University, Mount Pleasant, MI.

The Otago Exercise Program (OEP) is an evidence-based program that works to strengthen muscles and improve balance among the elderly. While the physical benefits of the program have

been extensively studied, little research has been done to evaluate the psychological benefits. The purpose of the present study was to examine (1) whether participation in the OEP produces an enhancement in mood state, (2) whether any effects persist 24 hours later, and (3) the motivational factors for initiating, implementing, and maintaining physical activity behavior. The study utilized five different senior centers where Otago exercise classes were held. This constituted 30 individuals aged 65 and older. The Profile of Mood States (POMS) inventory was used to assess total mood disturbance immediately before and immediately after completing the exercise program. The POMS inventory was also completed the following day while the participants were at home. Analysis indicated a significant beneficial effect of the OEP on mood, particularly tension, vigor, and confusion. 24 hours later, total mood disturbance had not fully regressed to pre-exercise levels. In addition, semi-structured, individual, qualitative interviews were conducted with five participants. Analysis, as suggested by Malterud in Systematic Text Condensation, emphasized that commitment and obligation were motivational in initiating physical activity. This data will contribute to the growing field of exercise-based research. It will also add an additional component to the review of the Otago Program thus informing researchers of the best practices for implementing and encouraging physical activity.



C10 Resident Presentation

Electroconvulsive Therapy, Ketamine Pre-Medication, and Concurrent Transdermal Selegiline with Risperidone for Severe Treatment-Resistant Depression: A Case Discussion

K. M. Bui,¹ N. Godbole,¹ A. Godbole,³ G. Sullivan,² P. Chatham.² 1. Psychiatry, University of South Florida, Tampa, FL; 2. Psychiatry, James A. Haley Veterans Hospital, Tampa, FL; 3. Nova Southeastern University School of Osteopathic Medicine, Davie, FL.

Background: Electroconvulsive therapy (ECT) is a standard treatment for treatment-resistant depression (TRD). A series of electrical stimuli to the cortex ECT releases neurotransmitters among other proposed mechanisms. Selegiline selectively inhibits MAO B. Its transdermal system is a favorable administration route for higher blood levels with lower side effects and a quicker onset than most antidepressants. Ketamine is a NMDA receptor antagonist shown to almost immediately provide an antidepressant and anti-suicidal effect. Selegiline is more commonly a maintenance medication, although ECT and ketamine have been used as such. This case study discusses the first patient with severe recurrent psychotic TRD who was successfully treated with ECT using ketamine premedication with transdermal selegiline and risperidone.

Case: A 75-year-old Caucasian patient with long history of severe major depressive disorder with psychotic features and combat PTSD who presented with depression and suicidality. He was stable on bupropion XL 300mg and quetiapine 300mg after 2017 ECT until significant stressors triggered mood and functional decline. After severe deterioration during medication adjustments, he started ECT

specifically with ketamine premedication and risperidone, then after a washout transdermal selegiline titrated to 12mg daily. No anesthesia or ECT adverse effects occurred. Marked improvement in mood symptoms, nihilistic delusions, delusions of guilt, and suicidality occurred.

Methods: A PubMed search was performed for “ECT”; “Transdermal Selegiline”; “Ketamine” and “Treatment Resistant Depression” in combination.

Results: Montgomery-Asberg Depression Rating Scale (MADRS) at the start of ECT = 56/60, and at conclusion after ECT # 13 = 6/60. Higher is more severe.

Conclusions: Given the faster onset of efficacy with selegiline patch, ECT, and ketamine, with the potency of risperidone, the combination should be considered for patients with severe TRD.

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C11 Resident Presentation

Language Variant of Atypical Alzheimer’s Disease: A Case Study

M. Pokhriyal, B. Niknejad, H. R. Okhravi. *Eastern Virginia Medical School, Norfolk, VA.*

Atypical presentations of Alzheimer’s Disease (AD) make up less than 10% of total AD cases. Of these, the language variant of atypical AD can appear similar to a subtype of frontotemporal dementia (FTD) called primary progressive aphasia. Using CSF biomarkers to confirm a diagnosis of AD is important for treatment options.

Case:

A 76 year-old Caucasian male presented to our memory center for 18 months of progressive difficulty with word finding, comprehension, spelling, multitasking and short term memory loss. He required supervision to ensure timely bill payments, but otherwise was independent with IADLs and ADLs. Family history was notable for mother and maternal uncle developing dementia in their early 80s. Physical exam was notable for significant level of anomia.

Administration of a 90-minute neuropsychological test revealed deficits in attention, executive functioning, verbal fluency and processing speed, fine motor skills and memory recall. The clinical diagnosis was consistent with dementia with mild intensity. Brain MRI with volumetric studies showed moderate white matter disease, significant (more on left than right) bilateral temporal and frontal atrophy, and hippocampal volume loss. Clinical presentation and imaging suggested probable FTD as the most likely diagnosis. After discussion of the differential diagnosis and possibility of atypical AD, the patient and his wife decided to proceed with spinal tap for biomarker confirmation.

CSF biomarkers were consistent with a biological diagnosis of AD. The patient was started on donepezil, with subjective improvement in cognition reported after a few months. He also qualified for Lecanemab therapy and will soon begin the infusion regimen.

Conclusion:

This case emphasizes the value of using biomarker diagnostic methods in atypical presentations, where AD is a potential diagnosis. Advanced techniques such as CSF analysis can refine the biological diagnosis, providing additional therapeutic options, including disease-modifying agents, for our patients.

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C12 Resident Presentation

The Importance of Geriatric Assessment in Taboo Topics: A Case of sGC Stimulator-Induced Incontinence

E. Luterstein, V. Ton, W. Backman. *Massachusetts General Hospital, Boston, MA.*

Background: Soluble guanylate cyclase (sGC) stimulators have garnered significant interest for their broad clinical applications, including pulmonary hypertension (pHTN), heart failure, scleroderma, and most recently achalasia. This case study is the first to report fecal incontinence as an adverse effect of sGC stimulators.

Case Presentation: We saw a 77-year-old male for geriatric evaluation in a multidisciplinary advanced heart failure clinic (geriatrics and cardiology). He had heart failure with reduced ejection fraction due to non-ischemic cardiomyopathy, severe chronic obstructive pulmonary disease, and pHTN. Invasive cardiopulmonary exercise testing determined that the pHTN was predominantly pre-capillary. The patient had been taking riociguat to improve dyspnea. Upon review of systems, he reported fecal incontinence ongoing for approximately one year. He was embarrassed and concerned about his spouse’s potential reaction. Upon review of his medication list, we noted that riociguat was initiated around the time that his fecal incontinence started. We postulated that the incontinence was caused by reduced internal anal sphincter (IAS) tone due to the smooth muscle relaxing effect of riociguat. After shared decision-making with his cardiologist, riociguat was gradually stopped, with marked improvement in fecal incontinence and no apparent worsening of his dyspnea related to the riociguat discontinuation.

Discussion: Prior studies of riociguat commonly reported gastrointestinal effects including diarrhea and gastro-esophageal reflux disease, thought to be secondary to smooth muscle effects; sGC stimulators have also been proposed as a treatment for achalasia and increased sphincter tone. To our knowledge, however, fecal incontinence related to sGC stimulators has not been reported. Though incontinence is common in older adults, it is never considered a normal part of aging – it can significantly affect quality of life, but patients may not report it and clinicians may not ask about it. This case emphasizes the importance of comprehensive geriatric assessment, which can identify adverse medication effects that may otherwise go undiagnosed. This case also highlights a hitherto unreported adverse effect of riociguat and possibly other sGC stimulators.

C13 Resident Presentation

Long Standing Systemic Kappa Light Chain Amyloidosis with Cardiac, GI, and Renal Involvement in an Older Patient

D. McKinnon, L. M. Nash, K. Leman. *UPMC, Pittsburgh, PA.*

Background: Systemic kappa light chain amyloidosis is caused by the deposition of fibrils composed of fragments of monoclonal light chains that are produced by dyscrasic plasma cells. The deposition of these fibrils leads to organ damage. This disease is more prevalent than previously thought with poor overall prognosis. The median survival without treatment is estimated at 3.5 years after diagnosis.

Case: 86 yo F with systemic kappa light chain amyloidosis diagnosed in 2010 with cardiac, GI tract, and renal involvement maintained on long term bortezomib therapy presented with dyspnea found to be in Afib with RVR with pulmonary edema. Throughout admission, patient developed worsening renal function and increasing dyspnea despite monitoring of fluid status and converting to sinus rhythm. Echocardiogram revealed a new right atrial mass thought to be an amyloidoma and pericardial effusion which progressed to tamponade. Patient was emergently transferred for pericardiocentesis. Patient ultimately decided to choose hospice care over continued interventions. She was discharged home on hospice and died one month later.

Discussion: Cardiac amyloidosis presents as a restrictive cardiomyopathy resulting in heart failure, arrhythmias, or rarely infarction. Amyloidosis has been considered a rarer cause of heart failure, but

there is growing evidence that it is more common than previously suspected. This is significant as the traditional medications are not effective. Some key features that suggest amyloidosis include bilateral carpal tunnel, EKG with low voltage, and left ventricular hypertrophy. New therapies are improving all-cause mortality and reducing CV related hospitalizations. Bortezomib is a proteasome inhibitor, which works to reversibly inhibit activity at the 26S subunit of the enzyme complex which leads to activating signaling pathways and then apoptosis. As discussed during this case, the patient survived longer than anticipated with bortezomib therapy. These new therapies are improving prognosis and impacting long term care for patients with cardiac amyloidosis.

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C14 Resident Presentation

Diagnosing delusions: a case of new-onset psychosis and behavior change

D. Boccaccio,¹ K. Mournighan.² 1. *Internal Medicine, University of North Carolina System, Chapel Hill, NC*; 2. *Geriatrics, The University of North Carolina at Chapel Hill, Chapel Hill, NC*.

Case: A 79-year-old woman with a history of hypothyroidism, sicca, pernicious anemia, and primary biliary cirrhosis presented with starvation ketosis in the setting of one week of minimal oral intake, stupor, and staring. For three months, she exhibited personality changes and expressed odd beliefs to her spouse, including delusions of parasitosis and fear that certain vegetables would vine throughout her body. She also had progressive weight loss over the last year. She had no prior history of mental illness. Initial workup was notable for mild global cerebral atrophy on MRI brain and mildly elevated GAD65 antibody in CSF. Cognitive screening evaluation suggested mild cognitive impairment with visual spatial and executive function deficits. Her symptoms seemed to improve with trials of risperidone and lorazepam though the symptoms fluctuated and made it difficult to identify a pattern. Given her autoimmune history and equivocal GAD65 antibody, empiric treatment with IVIG for autoimmune encephalitis was administered without improvement. She was ultimately transferred to the geropsychiatry unit for electroconvulsive therapy and antipsychotic titration to treat catatonia.

Discussion: Distinguishing behavioral changes in neurocognitive impairment from primary psychotic disorders is challenging, particularly when both are largely clinical diagnoses and treatment for one could be detrimental to the other. This patient received trials of benzodiazepines and steroids for possible catatonia or autoimmune encephalitis respectively. Behavioral variant frontotemporal dementia can be challenging to diagnose and was considered in this case, but psychotic features are not typical. Overlap between neurocognitive impairment and late-onset primary psychiatric illness is rare but described in the literature.

Conclusion: This case highlights the diagnostic challenges of differentiating between neurocognitive impairment, primary psychiatric disease, and other medical causes when delusions and weight loss predominate. After one month of ECT, she has had a modest treatment response to catatonia, but remains functionally dependent in instrumental activities of daily living and questions remain about where to go from here with her care. Patient and family education and support are paramount for preserving functional status and adjusting to a difficult new reality.

C15 Resident Presentation

Hereditary Transthyretin-mediated Amyloidosis Masquerading as Diabetic Neuropathy and Lumbar Radiculopathy

K. Horiuchi,¹ C. Hortelano,² J. Fogel.² 1. *Department of Medicine, Icahn School of Medicine at Mount Sinai, Mount Sinai Beth Israel, New York, NY*; 2. *Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY*.

Background

Hereditary transthyretin-mediated (hATTR) amyloidosis is a rare disease caused by mutations in the transthyretin (TTR) gene, resulting in extracellular deposits of amyloid fibrils in various organs. This commonly presents as a multisystem condition involving neurological, cardiovascular, renal, and gastrointestinal manifestations. Despite the importance of early diagnosis, they are frequently misdiagnosed as other more common conditions.

Case

A 67-year-old man presented to the clinic for progressive weakness of the lower extremities and shortness of breath. Symptoms began five years prior and gradually worsened over time, eventually requiring a walker and, finally, a wheelchair. He had a past medical history of type 2 diabetes with neuropathy, bilateral carpal tunnel syndrome, and lumbar stenosis. On physical exam, he had bilateral lower extremity weakness with decreased muscle mass, decreased sensation below the knees, and decreased deep tendon reflexes all consistent with diabetic neuropathy complicated by lumbar stenosis with radiculopathy. However, considering the rapid progression of neuropathy, further diagnostic studies were pursued. Nerve conduction studies revealed severe predominantly axonal sensory motor polyneuropathy. A sural nerve biopsy revealed amyloid accumulation with marked loss of myelinated and unmyelinated axons, suggestive for amyloidosis. Genetic testing confirmed V50M mutation in the gene encoding TTR. Transthoracic echocardiogram revealed a thick left ventricular wall with concentric remodeling, concerning for cardiomyopathy secondary to amyloidosis. He was treated with an RNA interference therapeutic agent patisiran, and physical therapy.

Conclusion

Early recognition of hATTR amyloidosis is crucial as the prognosis is reported to be around 10 years, thus, requiring treatment and advanced care planning. The presence of carpal tunnel syndrome, peripheral neuropathy, and cardiomyopathy were all systemic manifestations of the disease. When clinicians encounter a patient with disproportionately progressive neuropathy, it is important to search for signs of multi-organ manifestations of amyloidosis to maximize the chance of early diagnosis and improve patient quality of life.

C16 Resident Presentation

Imitation Game: Not All Erythema is cellulitis

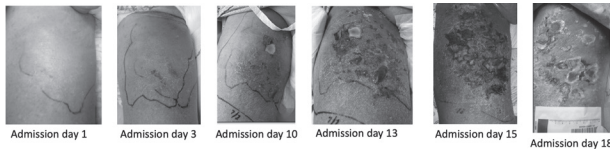
H. S. Wu. *Internal Medicine, WellSpan Health, York, PA*.

Unilateral limb erythema is a common presentation treated frequently in the hospital and in the outpatient setting. Differential diagnosis is broad, but typically cellulitis, DVTs and contact dermatitis are the most seen. Although much less common, cutaneous lymphomas can also cause unilateral erythema and swelling and, in a patient with a history of lymphoma, should be considered more closely. We summarize the hospital course of a 90-year-old male with a history of Non hodgkins lymphoma presenting with unilateral right thigh erythema that initially mimicked infectious cellulitis but was later discovered to be an uncommon presentation of diffuse large B cell lymphoma.

Our patient is a 90-year-old Caucasian male with past medical history significant for Hodgkin's lymphoma treated 30 years ago. He initially presented to Urgent care for evaluation of right thigh erythema and edema. A diagnosis of uncomplicated cellulitis was made based on appearance of the lesion. He was treated with oral Keflex. The lesion failed to improve and leg edema worsened. He was admitted for

a course of IV. His blood cultures remained negative. Shortly after his initial discharge he was readmitted for worsening symptoms. By this time, necrotic appearing bullae started to emerge over the involved area. A CT of the leg showed a soft tissue mass. Infectious disease was consulted and recommended treatment with IV piperacillin and vancomycin. Treatment with antibiotics was started. However, due to this patient's history of lymphoma, lack of improvement with antibiotics and the CT findings, a soft tissue and skin biopsy of the affected region was performed. Pathological evaluation of the sample revealed Cutaneous Large B Cell Lymphoma. After diagnosis the patient was evaluated by Oncology and started chemotherapy.

In the setting of a patient with a history of lymphoma presenting with unilateral localized limb erythema, cutaneous lymphoma should remain on the differential. In the setting of failed broad spectrum antibiotic therapy and clear blood cultures, earlier skin/soft tissue biopsy may be warranted to prevent delay in initiation of aggressive chemotherapy.



C17 Resident Presentation
Refractory Hypoglycemia in a Geriatric Patient with End-Stage Renal Disease: A Case Report

S. Lahud Cuadra, Z. Haque. Internal Medicine, MacNeal Hospital, Berwyn, IL.

INTRODUCTION

Hypoglycemia is a well-recognized risk in individuals with both ESRD and diabetes. Certain populations are particularly susceptible to experiencing it. Regrettably, there exists a minority of cases where hypoglycemia does not respond to treatment. Octreotide and nifedipine have been used in managing hypoglycemia associated with hyperinsulinemia. In this report, we present the case of a 68-year-old female patient who exhibited recurrent hypoglycemia unrelated to hyperinsulinemia, which ultimately responded to treatment with octreotide and nifedipine.

CASE PRESENTATION

A 68-year-old female patient with a complex medical history, including end-stage renal disease and type 2 diabetes, who in the emergency department, diagnostic workup revealed a serum glucose level of 38 mg/dl. She was admitted for close monitoring.

On the first day of her hospitalization, her blood glucose level of 26 mg/dl, leading to the initiation of a dextrose 10% infusion. Numerous attempts were made to discontinue the dextrose drip. Regrettably, she continued to experience recurrent episodes of hypoglycemia. One dose of intravenous octreotide (50 mg) was administered, followed by another dose of 100 mg the following day. Additionally, nifedipine (30 mg) was initiated.

DISCUSSION

Hypoglycemia is a well-recognized risk in individuals with both end-stage renal disease and diabetes. Improper insulin dosing, poor nutrition, and kidney dysfunction are common causes.

The treatment for hypoglycemia depends on the severity of the condition. Octreotide, as a long-acting somatostatin analog, its mechanism of action involves inhibiting insulin secretion from the pancreas, thereby preventing the occurrence of prolonged hypoglycemia. Nifedipine has been used in pediatric patients for hypoglycemia related to hyperinsulinemia.

Our patient was not prescribed hypoglycemic medications. The likely causes contributing to her hypoglycemia were multiple factors like ESRD and reduced oral intake. Despite ruling out hyperinsulinemia as a cause, the administration of nifedipine and octreotide successfully alleviated the patient's symptoms.

Hypoglycemia is a potentially life-threatening condition. In some cases, persistent hypoglycemia may be attributed to improper insulin dosing, poor nutrition, kidney dysfunction. We achieved successful treatment of persistent hypoglycemia unrelated to hypoglycemic medications by employing octreotide and calcium channel blockers.

C18 Resident Presentation
Beyond the Prescription: Medication Adherence Challenges in Self-Managed Older Adults and Value of Interdisciplinary Collaboration

C. Kim, T. Gurvich, Y. Youssef, S. Sehgal. UCI Medical Center, Orange, CA.

Background: This case report explores challenges in attaining optimal health outcomes as an older adult manages multiple chronic conditions. Despite appropriate therapy, poor outcomes persisted due to non-compliance, medication mishandling, and difficulty adapting to therapy changes. Other factors played a role, emphasizing the need for improved support and strategies to empower older adults in self-management and independence. Interdisciplinary collaboration plays a pivotal role in addressing these challenges effectively.

Medications: atorvastatin 80mg daily, dulaglutide 0.75mg weekly, insulin glargine 38 units daily, metformin 500mg BID, duloxetine 60mg daily, felodipine 10mg daily, HCTZ 12.5mg daily, losartan 100mg daily, metoprolol succinate 25mg daily, levothyroxine 175mcg daily, mirtazapine 15mg nightly, mirabegron 50mg daily, pantoprazole 40mg daily, aspirin 81mg daily, ibuprofen 400mg PRN, various supplements

Assessment: We present an older adult with a poorly managed medication regimen. Despite frequent office visits and therapy adjustments, the patient faced persistent challenges in managing diabetes, hypertension, and hypothyroidism over the past year. The interdisciplinary consultation unveiled multifactorial explanations, including mixed dosages in prescription vials and inaccurate pillbox use. Other issues included decreased mobility, psychological barriers, limited social activities and assistance, and poor nutrition.

Outcomes: Employing a comprehensive strategy, we addressed various facets of care. Initial cognitive assessments showed no impairment, but further testing explored additional dimensions. Prioritizing optimal hearing, vision, and balance were also crucial steps. A home visit by a pharmacist and social worker provided insight into living conditions and consolidated medications. A formal recommendation suggested the patient relocate to a senior living community, ensuring managed medications, meals, and access to enriching social activities.

Discussion: This case highlights the intricate layers that contribute to achieving optimal health outcomes in older adults, extending beyond the confines of routine office visits. Embracing an interdisciplinary healthcare model can draw us closer to realizing these outcomes.

C19 Resident Presentation, Encore Presentation
Bone Marrow Biopsy Assists in Goals of Care Discussion

J. Nagamoto,¹ S. Eivaz Mohammadi.^{1,2} 1. GME, Riverside Community Hospital, Riverside, CA; 2. Internal Medicine, University of California Riverside, Riverside, CA.

Introduction:

High quality goals of care (GOC) communication is critical to delivering goal concordant, patient-centered care to hospitalized patients with life-limiting illness. However, implementation of GOC discussions remain an important shortcoming in many health care systems. Goals of care help to align current health care treatment decisions to a person's goals and values. It requires the person and their families to have a clear understanding of the medical condition. There is no consensus on the process or components of GOC, or on tools to be used to inform and guide discussions. Complexity can also be increased if the person does not have a clear understanding of their condition and if family members and/or healthcare providers are not in agreement with the goals set.

Case Presentation:

A 64 year old male with new stage 3 anal cancer, cirrhosis, and splenomegaly initially presented after a fall. In the past 3 months, he had several hospitalizations requiring multiple blood. Presently, he was found to have acute compression fractures of T11 and L1 and a chronic T12 compression fracture. He was also pancytopenic requiring daily blood transfusions. Oncology was consulted and laboratory results were concerning for new leukemia or myelodysplastic syndrome. Patient exhibited signs of hepatic encephalopathy so a goals of care discussion was pursued his wife. She felt his medical problems came on too suddenly and she was not ready to transition him to comfort care despite recommendations from the oncology and primary teams. Bone marrow biopsy was offered to confirm the diagnosis of leukemia and provide further prognostication. His wife was amenable and the biopsy results demonstrated acute myelogenous leukemia. Goals of care was again discussed and the patient's wife agreed with comfort focused care, knowing the patient had a poor prognosis and no definitive treatment was possible. He was transferred to inpatient hospice and expired soon after.

Discussion:

When there is uncertainty of GOC, further diagnostic testing can provide clarity. In this case, the sudden onset of severe pancytopenia and rapid decline of the patient was overwhelming and was difficult to clarify GOC. Despite united recommendations from the medical team, a final diagnosis with a bone marrow biopsy was necessary for the family to accept that the patient was nearing the end of life.

C20 Resident Presentation**Iatrogenic B12 Deficiency manifesting as orthostatic hypotension, pancytopenia, and unintentional weight loss following nitrous oxide exposure in the elderly: A Case Report**

S. M. Hlaing. Family Medicine, Rio Bravo Family Medicine Residency Program, Bakersfield, CA.

Introduction: Nitrous oxide is a common general anesthetic used in surgery. It causes irreversible oxidation of Cobalt rendering the cobalamin inactive and disrupting integral biochemical reactions leading to debilitating neurogenic adverse effects. Elderly patients have higher prevalence of vitamin B12 deficiency, and it often goes unrecognized or misdiagnosed due to non-specific clinical presentations.

Purpose: We present a case of a 68-year-old Hispanic man who is non-alcoholic, non-vegan or vegetarian, without significant past medical history except BPH presented with dizziness, orthostatic hypotension, multiple near-syncope episodes, paresthesia in fingers and toes and unintentional 35-pounds weight loss, recent fall with loss of consciousness. Patient had notable surgical histories in the past fifteen years including ex-lap, vasectomy, two hernia repairs and transurethral resection of the prostate (TURP) three months prior to presentation. On admission, imaging studies were normal, except he was pancytopenic, severe vitamin B12 deficiency, significantly elevated MCV and decreased levels of vitamin B1, B9 as well as D. Patient was found to be borderline deficient in Vit B-12 prior to his first hernia repair more than ten years ago but no intervention was given. Subsequently, his B12 deficiency worsened after his TURP procedure. After treatment with high-dose B-12, patient's neurological symptoms significantly improved within 48 hours.

Discussion: Vitamin B 12 is an important cofactor needed for Methionine synthase, an enzyme responsible for forming Methionine and Tetrahydrofolate. Both are critical pathways for Thymidine formation which is an essential base in DNA, RNA and Myelin. Nitrous oxide oxidize cobalt ion leading inactive vitamin B12 causing irreversible inhibition of Methionine synthase. This eventually leads to demyelination in the central and peripheral nervous system. Repeated nitric oxide exposure may lead to exponential decline in B-12 levels, if unrecognized or misdiagnosed can lead to irreversible neurological deterioration rendering the patient permanently disabled.

Conclusion: Iatrogenic vitamin B12 deficiency by nitrous oxide is preventable by screening and prophylactic loading for the elderly and high risk patients with vitamin B12 prior to any surgical and dental procedures that utilize Nitrous oxide as anesthesia.

C21 Resident Presentation**Late presenting ST-elevation myocardial infarction complicated by left ventricular thrombus in a patient with dementia**

K. Horiuchi,¹ R. Wijesinghe,³ T. Uemura,² Y. Kanei.³ 1. Department of Medicine, Icahn School of Medicine at Mount Sinai, Mount Sinai Beth Israel, New York, NY; 2. Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY; 3. Division of Cardiology, Department of Medicine, The Heart Institute at Beth Israel Medical Center, New York, NY.

Background

Late-presenting ST-elevation myocardial infarction (STEMI) is generally defined as patients presenting at greater than 12 hours from symptom onset. Revascularization is not recommended in stable patient after 24 to 48 hours due to unclear mortality benefit. Patients with significant dementia has a major diagnostic challenge in clarifying onset, since detailed history taking is not always possible.

Case

A 74-year-old woman presented with chest pain. Onset of her symptoms were not clear due to her cognitive decline. The patient was a never-smoker, and had a past medical history of dementia, type 2 diabetes, hypertension, hyperlipidemia, and non-obstructive coronary artery disease. On arrival, she appeared non-distressed with unremarkable vital signs and physical exams. Her initial electrocardiogram showed anterolateral Q waves with ST elevations and T-wave inversions suggestive of late presenting STEMI. Transthoracic echocardiogram revealed a large thrombus along the left ventricular (LV) wall, with decreased ejection fraction to 25% and akinetic segments. Considering her high-sensitivity troponin of 30 ng/L on presentation, left heart catheterization was deferred initially, and she was managed conservatively with aspirin, statin, and heparin. Cardiac magnetic resonance imaging (MRI) revealed a true LV aneurysm with large burden of mural thrombus stretched widely across the LV wall. Left heart catheterization performed later revealed obstructive right coronary artery disease with occlusion of mid left anterior descending artery. Percutaneous coronary intervention was deferred as the potential benefit of reperfusion was low due to late onset. Patient was discharged on maximum medication.

Conclusion

Our case with late-presenting STEMI was complicated by LV thrombus, characterized by its mural morphology. This morphology may be an underrecognized feature indicating a longer time course since the onset of STEMI, and be an additional information to determine the onset for patients with difficult history taking.

C22 Resident Presentation**When taking care of others makes you forget about yourself:****A case report**

A. Zbyrko, D. Mohess. Bridgeport Hospital, Bridgeport, CT.

Polypharmacy, using five or more medications, poses risks for adverse health outcomes in older adults, including falls, morbidity and mortality. Aging individuals, especially those with multiple chronic conditions, are susceptible to polypharmacy. The presented case underscores the impact of caregiver burden as well, compounding risks for adverse health outcomes.

BD, a 74 year old female was seen for geriatric assessment due to worsening memory issues and caregiver burden as the primary caretaker for her sister. She faced challenges with diabetes and depression, struggling to recall her medications. Her diabetes regimen included dulaglutide, basal insulin, and metformin, while for hypertension, she took amlodipine, chlorthalidone, and lisinopril. Escitalopram

was prescribed for depression, and donepezil for dementia without a formal diagnosis. Despite her best efforts to be adherent, BD was unaware that donepezil and dulaglutide had been discontinued after medication reconciliation.

BD is at severe risk due to polypharmacy, treating diabetes with three agents and a total of 14 medications, none of which she recalled. In a study of patients over age 75 with Afib, 52% experienced polypharmacy, linked to higher major bleeding (HR 1.16; 95% CI 1.12–1.20) and heart failure (HR 1.33; 95% CI 1.29–1.36) [1]. Geriatric patients often receive medications from the same class without proper reconciliation, leading to unintended discrepancies in 53.6% of cases, with 38.6% having potential for discomfort or clinical decline [2]. The case also highlights caregiver burden, as BD lacked time for personal care, had worsening depression and cognition, with difficulty managing her own illnesses. A recent study on caregiver burden, particularly sibling care, reveals significantly increased depression scores in both genders, indicating a strong linear correlation with adverse effects [3].

Interventions to reduce polypharmacy, provide psychiatric and caregiver support may allow BD to have improved health outcomes.

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C23 Resident Presentation

Advance Care Planning in Residency Clinics

A. Alam. *Internal Medicine Residency Program, Washington State University, Pullman, WA.*

Background:

Residency clinics have a pivotal role in enhancing the quality of care for geriatric patients with a specific emphasis on the integration of advance care planning (ACP) to prevent avoidable hospitalizations. Although often overlooked in medical education, including residency, ACP training is imperative to well-rounded healthcare. This case report highlights the importance of early dialogue, aligning medical interventions with individual wishes, and promoting patient autonomy with a dignified approach to end-of-life care.

Case:

Mrs. C is a 84-year-old woman with a past medical history of chronic kidney disease, diabetes mellitus and atrial fibrillation on anticoagulation. Before this hospitalization, Mrs. C had engaged in ACP discussions with her resident provider, expressing her desire to avoid aggressive interventions that might lead to a burdensome hospitalization.

Upon admission, her advance care directives were reviewed. The patient's living will clearly outlined her preference for a focus on comfort care rather than invasive procedures with limited benefits.

Given the advance care planning in place, the medical team collaborated with Mrs. C's family to develop a care plan aligned with her wishes. The treatment approach emphasized symptom management, pain control, and emotional support, ensuring that her goals of care were respected.

Discussion:

Through the integration and preparation of ACP into the decision-making process, Mrs. C's hospitalization was tailored to meet her specific needs and preferences. The focus on comfort care, coupled with a reduction in aggressive interventions, not only avoided unnecessary suffering for the patient but also minimized the physical, emotional, and financial burdens associated with prolonged hospital stays.

Conclusion:

This case report emphasizes the importance of advance care planning training early in medical education. By incorporating early didactics, residents will gain the skills necessary for respecting patient autonomy, promoting a more compassionate and patient-centered healthcare experience.

C24 Resident Presentation

Thirst Never Ages: Misleading Case of Hyponatremia Results in Hospitalization and Waste of Medical Resources

D. Nguyen. *Riverside Community Hospital, Riverside, CA.*

Authors: Dustin Nguyen, DO¹, Huy Truong, DO¹, Sahar Eivaz Mohammadi, MD, FACP¹

¹Riverside Community Hospital-University of California-Riverside, Riverside, California

Introduction: Polydipsia is defined as the excessive fluid intake greater than 3 liters per day and is often overlooked cause of hyponatremia. The balance of sodium in the body is controlled via multiple regulatory systems. Failure in any of those mechanisms can lead to changes in plasma sodium causing neurologic changes such as altered mental status, seizures, osmotic demyelination, cerebral edema and even death.

Case Presentation: 87 y/o female with history of HTN and asthma who presented to the ED with progressively worsening leg swelling and dyspnea for the past 2 weeks. She was recently seen by her primary doctor and was prescribed Lasix for suspected heart failure, but her symptoms continue to worsen. She experienced bilateral leg pain, shortness of breath with ambulation and lying flat, and no longer able to perform her ADLs independently. On admission, BNP was 179.6, Na of 117, ECHO showed LVEF 70-75% with mild diastolic dysfunction. CXR showed mild pulmonary vascular congestion and she was started on Lasix for suspected new onset heart failure. On day 2 her Na⁺ decreased and diuretics were held. Urine study showed low urine & serum osmolarity and she was placed on fluid restriction. The following day her sodium continued to decline and multiple gallons of water were discovered at bedside and psychogenic polydipsia was suspected, nursing and family were informed not to allow any more fluid intake. However, patient continued to drink excess water and developed altered mental status with Na⁺ of 111, transferred to ICU for hypertonic saline.

Discussion: Hyponatremia occurs in about 10% of patients with psychogenic polydipsia. There are many causes of hyponatremia and a complete history and physical is crucial in diagnosing and determining the treatment. In this case, it is important to consider that our patient was highly functioning older adult and was able to drink water herself. Her case of polydipsia was not considered during initial history and instead she was continued on diuresis which caused worsening sodium levels leading to a potentially fatal need for ICU admission.

Conclusion: Obtaining a complete history and physical is an essential part of medicine, especially in the geriatric population to prevent waste of medical resources and to practice high value care

C25 Resident Presentation

Language Barriers in Elderly Patients with Cognitive Impairment: A Critical Case Study

M. Badheeb,¹ A. Zbyrko,¹ D. Mohess.² *1. Internal Medicine, Bridgeport Hospital, Bridgeport, CT; 2. Geriatric Department, Bridgeport Hospital, Bridgeport, CT.*

Background: Language barriers pose significant challenges to healthcare delivery, impacting quality of care, clinical outcomes, patient satisfaction, and exacerbating healthcare disparities. Older adults, particularly those with polypharmacy, limited social support, and cognitive impairments, are a vulnerable group often overlooked [1].

Case Presentation: A 67-year-old Haitian female with a history of hypertension, hyperlipidemia, ischemic stroke, and obstructive

sleep apnea presented with memory decline. Haitian-Creole was identified as her only written and spoken language. She reported difficulty in managing appointments and medications and was concerned about being a burden to her family. All of her medication instructions were in English only, which posed a comprehension and adherence challenge. Moreover, navigating her CPAP therapy was difficult with the English instructions. MMSE testing revealed mild cognitive impairment, and the Geriatric Depression Screen was suggestive of depression. On examination, gait instability and elevated blood pressure (170/90) were noted. Despite her well-kept appearance, she was dysphoric and tearful, disoriented to time, during our evaluation. Despite the utilization of interpretation services, after-visit summaries are only available in English or Spanish, which posed another challenge for patients to comprehend their management plan.

Discussion: Care for older adults with cognitive impairment can be complicated by communication barriers, leading to poor health outcomes. Overlooking language differences can lead to under-recognition of comorbidities, hindering optimal patient care. Ensuring appropriate language concordance for medical care and engaging patients in their treatment can reduce healthcare disparities [2]. Our concerns were raised to the clinic leadership.

Conclusion: Integrating resources to address language differences is essential to managing patients as we strive to decrease health inequities. This case emphasizes the necessity of comprehensive care, considering linguistic needs, providing psychological support, and tailoring management plans for these patients.

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C26 Student Presentation

Strategies for Improving Diversity in Recruitment of Older Adults for Virtual-Based Interventions

G. S. Olelewe,^{2,1} S. Win,¹ C. H. Shirazipour,¹ A. Mays.¹

1. Cedars-Sinai Medical Center, Los Angeles, CA; 2. Touro College of Osteopathic Medicine Harlem Campus, New York, NY.

Background: The advancements in virtual-based interventions have the potential to increase accessibility to research opportunities for older adults. Despite this prospect, many racial/ethnic groups remain underrepresented in research. The purpose of the study is to conduct a literature review exploring racial/ethnic diversity in virtual-based interventions for older adults.

Methods: We conducted a literature review of research that included (a) virtual interventions, (b) focused on or included older adult populations (individuals ≥ 65 years of age), and (c) published in English. Articles were retrieved from PubMed and Google Scholar. For each study reviewed, we extracted data on age, racial/ethnic demographics, and recruitment methods. This literature review took place between May - July 2023.

Results: In our literature review, a total of 22 articles described older adult participation in virtual-based interventions. However, a majority of study populations were predominantly composed of white participants. Furthermore, details on recruitment methods were not provided for several studies.

Conclusions: The findings from this literature review support the value of a systematic review that looks deeper into recruitment strategies that may foster diversity within virtual-based interventions targeting older adults. Moreover, our findings highlight the need for greater racial/ethnic diversity in research. Our next step is to perform a systematic review using the PRISMA framework. Future studies should aim to look at other sociodemographic characteristics (i.e. gender, educational history) beyond race/ethnicity.

Type of Article

Type of Article	Total (n= 22)
Systematic review	n= 7
Scoping review	n= 3
Literature review	n= 3
Meta analysis	n= 1
Clinical trial/Intervention	n= 7
Focus Group	n= 1

C27 Student Presentation

Subliminal negative perception society has with older adults:

A Scoping Review

L. M. Sadlowski, A. Stevens, J. Pandey. *College of Medicine, Central Michigan University, Mount Pleasant, MI.*

Background

Recently the aging population (65+) has had the largest ten-year increase to date based on the 2020 census and the World Health Organization has called for a reform on healthy aging and six initiatives were identified that directly address this among older adults. We conducted a comprehensive literature search of the sixth initiative: Addressing inaccurate perceptions each community has toward its elderly members. Our aim was to determine the extent of action/interventions being taken worldwide and what is needed to combat these negative perceptions.

Methods

Of 335 articles, 21 English language articles from 2010-onward fulfilled our inclusion criteria covering perceptions/ageism towards seniors. Exclusion criteria were pre-2010 articles, non-English, or lacking relevance. Included were 11 cross-sectional studies, 4 case studies, and 6 longitudinal studies.

Results

We identified ten underexplored themes including modifying elder perceptions through product adjustment and social media, Student Health Professionals Related Studies, Health Professional Perceptions, Caregiver perceptions, Studies involving Mental Health, Marijuana Perception, Place of Care Preference, Centenarian and Self-Perception, Older Adult Perception of Medical Conditions and Intergenerational Focused Studies. Proposed interventions ranged from consistent school programs nurturing positive youth views of aging to periodic anti-ageism workshops for healthcare workers to remove subliminal biases.

Conclusions

While some efforts improved attitudes, further research and initiatives are urgently needed targeting healthcare professionals, caregivers, and youth. Reframing mentality through evidence-based education programs could positively impact perceptions of older adults in the long-term. As elderly populations expand, reducing prejudice by better understanding unique needs and increasing community connections is crucial for enabling healthy, dignified aging.

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C28 Student Presentation

Feasibility of a Remote Lifestyle Intervention Program Among Older Adults with Mild Cognitive Impairment

K. Kerwin,¹ K. Brown,² A. Kulshreshtha,² H. Kim.¹ *1. Epidemiology, Emory University, Atlanta, GA; 2. Emory University, Atlanta, GA.*

Background: More than half of the patients with Mild Cognitive Impairment (MCI) will develop dementia within five years. The goal of PRISEM (Program to Improve Stress-levels and Enhance Memory) is to examine if a multi-component lifestyle intervention program can improve chronic stress, vascular measures, and executive function among African Americans and White patients with MCI. Our study also aimed to determine the feasibility and acceptability of a remote lifestyle intervention program.

Methods: In 2023, seventeen group intervention sessions over a period of 6 months were conducted through Zoom with a Diabetes Prevention Program (DPP) certified lifestyle coach. The evidence based DPP intervention curriculum was adapted for improving lifestyle for better brain health. Attendance was tracked by our study team, and Google surveys were distributed weekly to obtain participant feedback. Satisfaction of the sessions was measured using a Likert Scale, with 1 being “strongly disagree” and 5 being “strongly agree”.

Results: Our intervention study enrolled 15 participants. The average age was 77, 73% were female, 80% were White, and 33% had some college education. Ten participants (66.7%) completed the intervention. The average attendance rate was 88%. An average of 5 participants responded to the survey each week. When asked, “I found this session to be helpful”, participants rated the session 4/5. When asked, “I felt the session material was relevant to my health needs and goals 4.1/5. Participants commented that the most useful parts of the session included hearing from other group members, discussing newly published research, and becoming inspired to pay attention to their exercise and dietary habits. Participants did keep track of their health goals and weekly activity levels. Participants stated that some of the DPP information pertaining to nutrition was not relevant to their daily lives, so new research was incorporated into the curriculum.

Conclusion: Our results suggest that a DPP based remote lifestyle intervention programs is both feasible and potentially beneficial for older adults with Mild Cognitive Impairment.

C29 Student Presentation

Assessing Cognitive Function: The Role of the Memory Alteration Test in Predicting Stroop Color-Word Performance within the Self-Management Program for Brain Health

A. Aboutaj, M. Soto, S. E. Ross. *University of North Texas Health Science Center, Fort Worth, TX.*

Background: The Self-Management Program for Brain Health is designed to empower participants to make lifestyle changes that enhance cognitive function and potentially delay dementia onset. This study investigates the predictive relationship between the Memory Alteration test and Stroop Color-Word (Stroop CW) performance in these participants, aiming to contribute valuable insights to the complex interplay between memory and executive processing abilities.

Methods: Cognitively healthy adults (n = 21, age range 56–90) participated in the study, meeting inclusion criteria and undergoing vital sign assessment, Memory Alteration, and Stroop CW tests. The Memory Alteration test, a reliable screening tool, employed a cut-off of < 40 for cognitive impairment. Stroop CW raw scores were age-corrected, and T-scores were obtained. Statistical analyses included correlation coefficient (r) and p-value calculations.

Results: A statistically significant positive correlation (r = 0.55, p = 0.009) between Memory Alteration and Stroop CW scores was observed. Subgroup analysis confirmed the hypothesis, revealing a consistent correlation pattern for those scoring below (mean Memory

Alteration 37.86±0.55, Stroop CW 48.43±2.32, r = 0.88, p = 0.009) and above (mean Memory Alteration 44.93±0.85, Stroop CW 50.79±1.89, r = 0.67, p = 0.009) the normal Memory Alteration cut-off of 40.

Conclusions: The study supports the predictive ability of the Memory Alteration test on Stroop CW performance in cognitively healthy adults. It underscores the clinical relevance of the Memory Alteration test as a reliable screening tool for early cognitive impairment and processing speed changes. Clinicians are encouraged to become familiar with the Memory Alteration test, considering its inclusion as an additional cognitive screening tool. By adding this brief and non-invasive assessment into routine practice, healthcare professionals can enhance their ability to identify subtle cognitive changes early on, facilitating proactive interventions and contributing to improved patient outcomes. Limitations include sample size and variability, suggesting the need for larger, more diverse samples in future research. The ongoing Self-Management Program for Brain Health presents an opportunity to address these limitations and advance our understanding of cognitive assessment and brain health.

C30 Student Presentation

Tumor Characteristics and Event-free Survival in Older and Younger Patients with Breast Cancer

S. Kodikara,¹ A. M. Deal,² A. Page,³ H. Muss,⁴ K. Nyrop.⁵ *1. The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 2. The University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, Chapel Hill, NC; 3. The University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC; 4. Geriatric Oncology Program, Director, The University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, Chapel Hill, NC; 5. Geriatric Oncology Program, Deputy Director for Research, The University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, Chapel Hill, NC.*

Background: Age, menopausal status, body mass index (BMI), breast density, race, parity, health behaviors, tumor characteristics, and treatment regimen are associated with breast cancer (BC) risk. This study analyzes associations of these risk factors and 5-year event free survival (EFS) in patients aged 65 or older as compared to under age 65.

Methods: Events included BC recurrence, second primary, metastases, and survival. Patients were stratified by age for analysis, and outcomes were censored at 5 years post chemo. Survival was estimated using the Kaplan-Meier method and compared using a Cox proportional hazard model.

Results: In a sample of 731 women treated with chemotherapy for early BC, mean age at diagnosis was 53 years (78% age <65, 22% age 65 or older, 75% White, 23% Black). BC stage among women <65 was I (15%), II (54%) or III (31%) and for women aged 65 or older stage I (28%), II (48%), or III (25%) (p=.0007). Younger women had larger tumor size (3.3 vs 2.7) (p=.0005) and higher breast density (p=.01). For 27 events in women <65 age group, significant variables for EFS were tumor subtype (p=.05) and triple negative (p=.01). For 19 events among women 65 or older, significant EFS variables were tumor subtype (p=.03), triple negative status (p=.008), and receipt of radiation treatment (p=.002).

Conclusions: In our sample, there were no significant survival differences by race, BMI, smoking history, alcohol use, parity, T or N stage, positive test for genetic marker, nodal status, breast density, or type of chemotherapy regimen.

C31 Student Presentation
What Do Older Adults Want to Learn and What Should They Learn about Medication Safety?

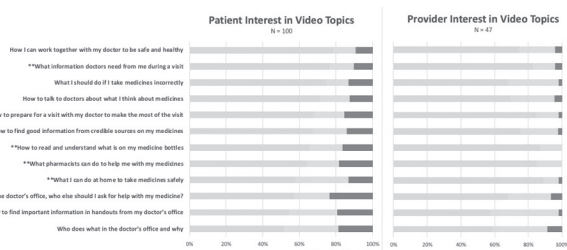
N. Hendrix, K. M. Daniel, Y. Xiao. *College of Nursing and Health Innovation, The University of Texas at Arlington, Arlington, TX.*

Background: Primary care visits are opportunities for older adults to learn about how to work with professionals to improve medication safety. Although deficiencies in self-care and communication contribute to harmful adverse drug events, topics for learning are inadequately defined suitable for patients to learn during office visits.

Methods: A set of 12 educational topics were selected based on interviews and literature. Primary care physicians, advanced practice nurses and physician assistants (providers) were recruited from family medicine clinics in North Texas. Adults were recruited among patients visiting 2 academic, safety-net clinics in North Texas. Provider participants were asked about importance (“would you want your patients to watch short videos about the following topics while waiting in the exam room at your clinic?”). Patient participants were asked preference (“would you watch short videos about the following topics while waiting in the exam room at your doctor’s visit?”).

Results: A total of 100 patients (65-89 years old: 19) and 47 providers (physician: 35) responded (Figure). Provider and patient respondents agreed on the majority of the topics and differ on 5 topics (X2 tests, $p < 0.05$). All topics received at least 50% of agreement for learning during an office visit. The most preferred topic for patients was “how I can work together with my doctor to be safety and healthy”, while the most important topic judged by the providers was “What I can do at home to take medicines safely”.

Conclusions: Patients and providers agree the topics that the patients are interested in learning about medication safety through watching short educational videos, although the relative rankings of importance and preference were different. Intentional deployment of patient education videos during office visits may be guided by considering patient preferences, which may be different from those of the professionals.



Comparison of Survey Results of Patients and Providers

C32 Student Presentation
How to Make a TUG Fall

J. Huang,² H. Lander,¹ I. Anesthesiology, University of Rochester, Rochester, NY; 2. University of Rochester, Rochester, NY.

There is a great need to develop preoperative programs that provide high-quality care and prehabilitation for geriatric populations before surgery. We share the experiences of a patient who participated in a pilot outpatient perioperative anesthesia program that assesses preoperative risk factors to identify and refer high risk patients to presurgical physical therapy (PT).

An 85 yo female presented with symptomatic aortic stenosis for evaluation prior to transcatheter aortic valve replacement. The patient underwent comprehensive perioperative risk assessment, including assessment of falls, Edmonton frailty risk, mentation, medication, and nutrition. She was found to be frail and at increased risk for falls, postoperative delirium, and malnutrition. As part of perioperative optimization, she was referred to preprocedural PT. Expedited referral was possible due to program-specific reserved appointments for frail

patients. At the patient’s first PT session, baseline functional performance outcome measures were established. She was provided a home exercise plan and complementary education regarding fall prevention and mobility improvement. The patient underwent successful transcatheter aortic valve replacement without postoperative complications. She followed with PT for ten weeks as part of her post-operative recovery plan.

The patient’s changes in functional performance are shown in Figure 1. The patient had substantially improved physical function over her PT course; TUG time improved by 11.68% after 6 weeks and by 44.92% after 10 weeks.

The direct perioperative anesthesia evaluation to PT pipeline is efficacious and streamlines interdisciplinary communication. The association between preoperative frailty and postoperative morbidity necessitates dedicated workflows for care adjustment over the post-operative course.

This case represents successful implementation of a pilot program to formalize perioperative risk management of mobility for frail geriatric patients, placing greater emphasis on interdisciplinary contributions to enhance care and improve postoperative outcomes for these patients.

Timeframe:	Baseline	Post-Op Week 6	Post-op Week 10
TUG*	42.12 sec	37.47 sec	26.67 sec
30 sec chair rise*:	4 reps, Bilateral UE assist	4 reps, Bilateral UE assist	5 reps, Bilateral UE assist
Gait Speed	Deferred	0.42 m/s	0.54 m/s
Romberg:	30 seconds	30 seconds	30 seconds
½ Sharpened Romberg	25 sec – R LE leading	30 sec – R LE leading	30 sec – R LE leading
Sharpened Romberg	2 sec – R LE leading	5 sec – R LE leading	25 sec – R LE leading

C33 Resident Presentation

Primary care provider barriers, facilitators and needs to deprescribe benzodiazepines and other sedatives in older adults: a mixed methods study

O. Hürlimann,¹ D. Alers,¹ N. Hauri,¹ P. Leist,¹ N. Rodondi,^{1,2} C. Aubert.^{1,2} 1. General Internal Medicine, Inselspital Universitätsspital Bern, Bern, Switzerland; 2. Institute of Primary Health Care (BIHAM), Universität Bern, Bern, Switzerland.

Background: Benzodiazepines and sedative hypnotic drugs (BSHs) are frequently prescribed for sleep problems, but cause substantial adverse effects, particularly in older adults. Improving knowledge on barriers, facilitators and needs of primary care providers (PCPs) to BSH deprescribing can help implement it.

Methods: Mixed methods study (February-May 2023) including a survey, semi-structured interviews and focus groups with PCPs of the French- and German-speaking parts of Switzerland. We assessed barriers, facilitators and needs of PCPs to BSH deprescribing. Quantitative data were analyzed descriptively, qualitative data deductively and inductively using the Theoretical Domain Framework (TDF). Quantitative and qualitative data were integrated using meta-interferences.

Results: The survey was completed by 126 PCPs (53% female) and 16 PCPs participated to a focus group or individual interviews. TDF domains and constructs identified during coding are displayed in the table. Main barriers included lacking knowledge on BSH effects and side effects for patients and PCPs, patient lack of motivation, PCP lack of time, limited access to cognitive behavioral therapy and absence of public dialogue on BSHs. Facilitators included using side effects to motivate patients to discontinue BSHs and start of deprescribing during a hospitalization.

Two-thirds of PCPs preferred online (rather than in-person) training. Main PCP needs were practical recommendations for pharmacological and non-pharmacological treatment of sleep problems (88%) and deprescribing schemes (68%). Patient brochures were wished by 69% of PCPs. As content, PCPs wished explanations about risks and

benefits (89%), sleep hygiene (80%) and sleep physiology, alternative treatments (79%), discontinuation process (75%) and tapering schemes (73%).

Conclusions: The barriers and facilitators as well as PCP needs and opinions on patient material we identified can be used to develop PCP training and patient material on BSH deprescribing, which should be evaluated in further studies.

TDF domains and constructs used for coding

Domains	Knowledge	Skills	Beliefs about capabilities	Beliefs about consequences	Motivation and goals	Environmental context and resources	Social influences	Emotion	Behavioral regulation	Nature of behaviors
Constructs	Knowledge about conditions/causes/symptoms; Schemas + attitudes + illness representations; Procedural knowledge	Competency/ability/skill assessment; Practical skills development	Perceived competence; Self-confidence/professional confidence	Outcome expectations; Consequences; Unrealistic optimism	Goal appraisals; Goal priority; Intrinsic motivation; Translational model and stages of change	Resources/material resources (availability and management)	Social support; Social/group norms; Social pressure; Inter-group conflict; Social comparison	Affect; Anticipated regret; Fear; Anxiety/depression	Goal/target setting; Self-monitoring; Moderators of intention-behavior gap; Barriers and facilitators	Routine/automatic habits; Breaking habits; Direct experience; Representations of tasks

C34 Student Presentation

Iyengar Yoga for Older Adults with Prolonged Grief Disorder: Randomized Controlled Trial Feasibility

B. Lia Braaten,^{1,2} T. McAuliffe,³ A. Webber,³ C. F. Reynolds,^{5,6} K. R. Hainsworth,^{1,2} J. S. Goveas,^{3,4} *1. Anesthesiology, Medical College of Wisconsin, Milwaukee, WI; 2. Jane B. Pettit Pain and Headache Center, Children's Hospital and Health System Inc, Milwaukee, WI; 3. Medical College of Wisconsin Department of Psychiatry and Behavioral Medicine, Milwaukee, WI; 4. Institute for Health and Equity, Milwaukee, WI; 5. Geriatric Psychiatry, UPMC, Pittsburgh, PA; 6. Behavioral and Community Health Sciences, University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA.*

Approximately 10% of older bereaved adults develop Prolonged Grief Disorder (PGD), a psychiatric condition with substantial adverse repercussions. Yoga, particularly styles incorporating Iyengar Yoga (IY) elements, shows potential for improving mental and cognitive health in late-life neuropsychiatric disorders. Yoga has demonstrated preliminary efficacy in mitigating grief among younger bereaved women. Our objective was to assess interim feasibility of a 10-week randomized controlled trial (RCT) comparing IY with an active control (i.e., health education [HE]) group in older PGD adults. Over 25 months, 26.4% of those screened signed consent (n=42), with an accrual rate of 1.7 participants per month. Of the 42 enrolled, 9 dropped out pre-randomization, 19 were randomized to the IY arm, 13 to the HE arm, and 1 is awaiting randomization. Among those randomized, 17/19 in the IY and 9/11 in the HE arms have completed the study, with 2 actively participating in the HE group. Mean age was 62.9 years, 90.0% were female, and 96.7% White. Attendance, expectancy, safety, and retention did not differ between study groups. Neither group preferred nor expected more of one intervention type over the other at study entry. The combined mean attendance rate was 78.0%. 90.6% of all IY home practice logs were completed, with an average duration of 67.0 minutes practiced per week. At completion, the IY group compared to HE gave slightly higher ratings of benefit ($p = 0.023$, 2.23 [95%CI 0.37, 4.10]) and leader quality ($p = 0.012$, 1.10 [95%CI 0.31, 1.89]) on an 11-point Likert scale. There were no significant adverse events in either arm. All participants except one (i.e., 96.3%) were highly satisfied with study participation. Of all IY classes, 91.3% met 100% of the fidelity benchmarks. An RCT of this nature in older adults with PGD appears acceptable and feasible. We anticipate equal numbers of participants in both arms, and study enrollment to be complete by the presentation.

C35 Student Presentation

Effect of Socioeconomic Position on Success with an Affordable, Accessible Hearing Care Intervention: Secondary data analysis from the HEARS RCT

J. S. Sohmer,¹ J. Betz,² E. Garcia-Morales,² J. Suen,² J. Trumbo,² N. Marrone,³ H. Han,² C. Nieman,² *1. Florida Atlantic University Charles E Schmidt College of Medicine, Boca Raton, FL; 2. Johns Hopkins University, Baltimore, MD; 3. Banner - University Medical Center Tucson, Tucson, AZ.*

Hearing loss impacts 64% of Americans above 70. Disparities exist in access and use of hearing care differing by socioeconomic position (SEP). Strategies to address existing disparities in hearing care may include leveraging over-the-counter (OTC) hearing devices and partnering with community health workers (CHW). The objective of this study was to assess whether education level, as proxy for SEP, modified the effect of hearing care intervention delivered by CHW with OTC hearing technology within the HEARS randomized clinical trial.

Participants were randomized to either the immediate treatment or 3 month waitlist control group. The primary outcome was change from baseline in HHIE-S score at 3 months. In a secondary analysis, participants were categorized by educational level. The average treatment effect of the intervention in each stratum was computed using doubly robust weighted least squares.

Of 151 participants for the initial HEARS study (mean age 76.7 [SD 8.0 years; 101 [67.8%] women), 136 (90.1%) were assessed for the primary outcome. 42 (27.8%) participants self-identified as below high school education (HS), 42 (27.8%) as at HS, and 67 (44.4%) as above HS.

Of those with less than HS, treated individuals demonstrated a 14.3-point greater improvement in communication on the HHIE-S at 3 months (95% CI: -22.3, -10.0) compared to controls, with similar changes noted in those with HS or equivalent (-11.4, 95% CI: -14.9, -3.9) and greater than HS (-12.8, 95% CI: -18.1, -7.4).

The largest difference in treatment effect between education was a difference of -2.9 points (95% CI: -13.3, 3.5) between those with less than HS and those with HS or equivalent, and no pairwise difference reaching statistical significance (lowest p-value = 0.27).

SEP did not modify the effect of the intervention. Participants experienced comparable improvements in communication function regardless of SEP compared with control. Hearing care interventions with low-cost OTC hearing technology and the support of CHW may be a promising approach to address disparities in hearing care.

C36 Student Presentation

Acceptability and feasibility of a comprehensive, multidimensional nutrition delivery program for older adult trauma patients

T. Sytsma, P. Wischmeyer, J. Molinger, C. Cox, S. Agarwal, K. Schmader, K. Haines. *Duke University School of Medicine, Durham, NC.*

Background

Malnutrition in older adult trauma patients bears profound clinical consequences, including increased morbidity and mortality and reduced likelihood of discharge home. Yet this population routinely experiences inadequate nutrition delivery in the ICU and post-discharge. We hypothesized that employing indirect calorimetry (IC)—the gold standard for determining energy requirements—to tailor nutritional interventions would enhance their resilience, leading to the development and pilot trial of the Structured Nutrition Delivery (SeND Home) program. Using an iterative design, the SeND Home program was crafted and trialed for feasibility and acceptability in a formal pilot study.

Methods

Our pilot randomized controlled trial assessed the SeND Home program versus standard of care in ICU patients over 60. Following a 3:1 randomization, the intervention group received tailored nutrition based on IC assessments starting at 72 hours post-admission. Once deemed appropriate for a full liquid diet, patients received tailored nutrition interventions including oral nutrition supplements (ONS) until discharge and for 4 weeks post-discharge, paired with follow-up calls from a registered dietician (RD). The design was iterative, allowing protocol adjustments from stakeholder feedback, enhancing acceptability.

Results

The study enrolled 32 patients in 10 months, 59% of whom were female, showing feasibility. Of 23 patients randomized to the intervention group, 20 patients completed IC, with one mortality and no withdrawals. Acceptability was tested through initial adherence to ONS during admission, which was recorded at 75%, with a post-discharge adherence rate of 70%, as verified through dietitian follow-ups. Additionally, 100% of discharged patients completed a minimum telephone follow-up. Acceptability of the SeND Home protocol was confirmed through interviews, and the program's feasibility was enhanced by implementing virtual follow-ups for functional measures and questionnaires.

Conclusions

The SeND Home pathway is acceptable and feasible and should be transitioned into a larger randomized controlled trial to establish a solid correlation between pathway interventions and their impact on recovery and long-term functional, physical, and quality of life outcomes in older adults suffering trauma.

C37 Student Presentation Evaluating the Role of Arterial Stiffness on Amplitude of Cerebral Blood Flow Oscillations

K. Lal, K. Davis, G. K. Anderson, N. A. Bhuiyan, C. A. Rickards.
Department of Physiology and Anatomy, University of North Texas Health Science Center, Fort Worth, TX.

Background: Changing the pattern of cerebral blood flow by forcing oscillations in arterial pressure and blood flow at 0.1 Hz (10-second cycle) can limit reductions in cerebral tissue oxygenation during a condition of reduced cerebral perfusion. This method of inducing 0.1 Hz hemodynamic oscillations is called Pulsatile Perfusion Therapy (PPT). Sympathetic activation can increase the amplitude of 0.1 Hz hemodynamic oscillations, and acutely increase arterial stiffness. The impact of increasing carotid arterial stiffness on the magnitude of 0.1 Hz cerebral blood flow oscillations has not been examined. We hypothesize that with the application of 0.1 Hz PPT during a condition of cerebral hypoperfusion, 1) the subsequent increase in sympathetic activity will acutely increase carotid arterial stiffness, and; 2) greater carotid artery stiffness will result in a higher amplitude of oscillations in cerebral blood flow.

Methods: 10 healthy participants (8 males, 2 females) were exposed to 10-min of oscillatory lower body negative pressure (OLBNP) at 0.1 Hz, which induced both a state of cerebral hypoperfusion and 0.1 Hz hemodynamic oscillations. Middle cerebral artery velocity (MCAv), internal carotid artery (ICA) diameter and beat-to-beat arterial pressure were measured. ICA stiffness was determined using the beta-stiffness index, incorporating ICA diameter and arterial pressure measurements. The amplitude of 0.1 Hz MCAv oscillations was assessed via fast Fourier transformation.

Results: While OLBNP increased MCAv 0.1 Hz oscillations ($36.1 \pm 24.2 \text{ cm/s}^2$ vs. $812.4 \pm 668.0 \text{ cm/s}^2$; $P=0.01$), ICA beta stiffness was not different between the baseline and OLBNP conditions ($12.3 \pm 4.9 \text{ au}$ vs. $13.2 \pm 5.7 \text{ au}$; $P=0.56$). There was no relationship between ICA stiffness and the amplitude of MCAv oscillations during OLBNP ($r=0.17$, $P=0.68$).

Conclusions: Contrary to our hypothesis, ICA stiffness did not increase during 0.1 Hz OLBNP, and there was no correlation between ICA stiffness and the magnitude of MCAv oscillations induced at 0.1 Hz. These data suggest that ICA stiffness may not determine the magnitude of induced oscillations in cerebral blood flow. Future studies will examine these effects in older adults to determine the potential beneficial application of PPT for the treatment of low cerebral perfusion conditions (e.g., Alzheimer's disease, stroke).

C38 Student Presentation The Impact of Belatacept for Improving Delayed Graft Function Rates in Kidney Transplant Recipient

N. Garapaty,¹ J. Kim,² N. Ali.² *1. Nova Southeastern University, Fort Lauderdale, FL; 2. New York University Grossman School of Medicine, New York, NY.*

Background: Increasing human longevity has led to an increasing number of organ recipients. As a result, organ shortages and older kidney transplant recipients have been associated with worse overall and graft survival rates. Furthermore, suboptimal organs are used more frequently. This has led to greater risk of delayed graft function (DGF) in kidney transplant recipients. Belatacept, an immunosuppressive drug in high-risk kidney transplants may be used more frequently, however its impact on DGF is unknown. This study aims to determine the impact of belatacept on DGF in kidney transplant recipients.

Methods: We conducted an interim analysis of kidney transplants from 2021 and 2022 at NYU Langone Health using a retrospective chart review. Belatacept-treated recipients and non-belatacept (tacrolimus)-treated patients were compared by recipient factors (demographics, dialysis history, DGF risk factors), donor factors (demographics, DGF risk factors, biopsy characteristics, Kidney Donor Profile Index (KDPI) and terminal kidney function), post-transplant function (DGF based on dialysis treatments and estimated Glomerular Filtration Rate (eGFR)).

Results: Belatacept-treated patients (n=47) experienced DGF for an average of 7.13 days, while non-belatacept patients (n=64) experienced DGF for an average of 5.05 days. Belatacept-treated patients presented with a lower eGFR, when compared to non-belatacept treated patients, at 30, 90, 180, and 365 days. These differences were not statistically significant. In this study, the donor kidneys used in the belatacept group had a higher mean percentage of glomerulosclerosis and a higher percentage of interstitial fibrosis. A higher percentage of belatacept-treated recipients had a history of coronary artery disease.

Conclusions: Belatacept-treated patients may experience DGF for a longer period and have worse kidney function than non-belatacept treated patients; however, the influence of belatacept remains inconclusive. This study was limited by selection bias as high-risk transplants are often given Belatacept as an immunosuppressive agent. A larger patient sample is needed to address these biases.

C39 Student Presentation Predictors of Multidrug-Resistant Organisms (MDRO) contamination in Nursing Homes: focus on sex and diabetes mellitus

M. Saab, H. Hua, G. Vijayasiri, M. Cassone. *University of Michigan Michigan Medicine, Ann Arbor, MI.*

Background and Objectives: We aimed to assess the qualitative and quantitative relationships between diabetes mellitus with patient colonization with Multidrug-resistant organisms (MDROs), among other clinical and demographic characteristics. Furthermore, we sought to investigate the extent and role of contamination in the patient's environment.

Methods: Secondary data analysis of prospective cohort study of 896 nursing home patients over 2,437 visits. MDROs related outcomes of interest for this analysis where patient and environmental contamination with methicillin-resistant *Staphylococcus aureus*

(MRSA), vancomycin-resistant enterococci (VRE), and resistant gram-negatives (rGNBs), as well with any one or more of the above listed organisms. Diabetes as a risk factor for each of the outcomes was assessed along with demographic and clinical covariates as well as patient functional status (physical self-maintenance score - PSMS) using logistic regression analysis.

Results: Univariable analysis indicated a potential association of diabetes mellitus with patient, as well as environmental contamination with any MDRO, driven by VRE (odds ratio (OR) of environmental contamination: 1.252, 95% CI: 1.035-1.514 for MDROs, 1.339, 95% CI 1.110-1.614 for VRE). No association was found between diabetes mellitus and MRSA, nor rGNBs. Interestingly, male sex was also associated with MDRO contamination (OR: 1.505, 95% CI 1.257-1.803). Multivariable analysis confirmed the independent association for diabetes and sex, as well as other risk factors previously established in healthcare settings, although understudied in the post-acute care (Table).

Conclusions: This study offers novel insights pointing to a relationship between diabetic status, as well as male sex, and environmental contamination with MDROs (potentially driven by VRE) in the post-acute care setting. Such risk factors should be considered when identifying patients that may benefit from enhanced contact precautions and environmental cleaning protocols, as well as potentially single room assignment.

Variable	Odds ratio	95% CI	P value
Diabetes mellitus	1.252	1.035-1.514	0.0206
Male sex	1.505	1.257-1.803	<0.0001
Antibiotic use	1.435	1.179-1.745	0.0003
Open wound	1.474	1.138-1.909	0.0033
Functional dependence	1.083	1.018-1.153	0.0120
Length of previous hospital stay	1.028	1.007-1.050	0.0099

C40 Student Presentation

Assessing Stakeholder Perspectives on the Texas No Wrong Door System for Long-Term Services and Supports

E. Anaab, S. Murphy, R. Yockey, J. Severance. *University of North Texas Health Science Center, Fort Worth, TX.*

Background: The No Wrong Door (NWD) System is a state-wide network to support the growing number of older Texans needing long-term services and support (LTSS), yet many older adults do not have access to such services. As an offshoot of the person-centered planning movement, the NWD System is premised on ensuring that no matter where individuals first interact with the system, they are guaranteed comprehensive information, assessment, and services.¹ The primary goal of this work is to identify strategies to optimize coordination between and awareness of the entry points of this system.

Methods: To derive understanding from experiences with the NWD System, we launched a statewide survey from September to December 2023. The survey will help the Health and Human Services Commission (HHSC) create a consumer-driven, cost-effective, and efficient system. Survey target audiences included people with disabilities, veterans, adults aged 50 and over, family caregivers, and LTSS providers. Both an English and Spanish format of the survey were distributed. Several methodological tools (e.g., telephone, mail, and Internet) were utilized for increased accuracy and response rate.

Results: From November’s preliminary data of 3,036 survey respondents, 52% of respondents identified as adults 50. Overall, 71% of respondents were unaware of the NWD System; 2% don’t know. Of the 27% aware, 37% felt very or somewhat uninformed about it in their community. Ease of applying for services, reasonability of time spent applying for services, and timeliness of services were among the lowest scoring statements. The top three concerns related to accessing LTSS included a confusing system, not knowing where to get help, and long wait times for services.

Conclusion: Our results form the blueprint for facilitating access to care at the community and agency levels throughout Texas to ensure

vulnerable populations obtain a high quality of life. Recommendations for the NWD system include effective community outreach and streamlined application processes for services and supports.

References

1. Reinhard SC, Kassner E, Houser A, Ujvari K, Mollica R, Hendrickson L. Raising Expectations, 2014: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers. Published online 2014.

C41 Student Presentation

Atopic Dermatitis as a Risk-Factor for Total Joint Arthroplasty Surgical Site Infections

Y. Halezeroglu,^{1,2} B. Chiang,¹ A. Chattopadhyay,¹ J. Barry,¹ K. Abuabara.¹ *1. University of California San Francisco, San Francisco, CA; 2. University of California Berkeley, Berkeley, CA.*

Background

As the number of total joint arthroplasties (TJA) performed steadily grows amidst an aging population, the global burden of post-TJA surgical site infections (SSI) continues to rise in parallel. Skin bacteria, including *Staphylococcus aureus* (*S.aureus*), are the leading causes of orthopedic SSIs. Patients with atopic dermatitis (AD) are more likely to be chronically colonized with bacteria like *S.aureus*. Our objective is to determine the association between atopic dermatitis and post-TJA SSIs.

Methods

This matched case-control study was performed utilizing the population-based UK Biobank cohort. The primary exposure, atopic dermatitis, was identified via diagnoses and prescriptions for AD in linked primary health records. The outcome, post-TJA SSIs was defined by relevant Office of Population Censuses and Surveys (OPCS-4) codes (W40-42 for knee, W37-39 for hip) and ICD-9 and 10 codes (ICD-9: 9983, ICD-10: T81.3, T81.4 for superficial, ICD-9: 9966, ICD-10: T84.5 for deep).

Out of 18,327 eligible subjects with TJA surgery, 399 cases who developed a TJA SSI were identified from linked primary care records. Non-infected TJA controls were matched in a 1:4 ratio based on sex, age group (in six equal categories from 30-85), primary vs revision TJA, and joint (hip or knee). A logistic regression model was adjusted for the matching variables and covariates including BMI, smoking status, diabetes, and socioeconomic status measured by Townsend Deprivation Index.

Results

1,995 patients (399 SSI cases, 1596 controls) with a mean age of 67 years were included. Of 399 SSI cases, 281 were deep, 111 superficial, and 7 mixed SSIs. Prevalence of AD was higher in SSI cases compared to controls (8.0% vs 4.4%, p= 0.005). Multivariate regression models showed an 80% increase in the odds of all SSIs for patients with AD (OR 1.80 95% CI 1.15, 2.77). In the subgroup analyses, the association between AD and superficial SSI (OR 2.36 95% CI 1.05, 5.08) was stronger compared to deep SSI (OR 1.70 95% CI 0.98, 2.85).

Conclusion

Within this large, population-based study in the UK, there was an association between atopic dermatitis and TJA infections, especially superficial SSIs. Future work should evaluate whether additional preventative treatments could reduce the risk of SSIs among patients with AD.

C42 Student Presentation

Variation in Vancomycin Resistant *Enterococcus faecalis* and *faecium* prevalence and ratio in VA Community Living Centers

A. Naif, K. Gibson, M. Cassone. *University of Michigan Michigan Medicine, Ann Arbor, MI.*

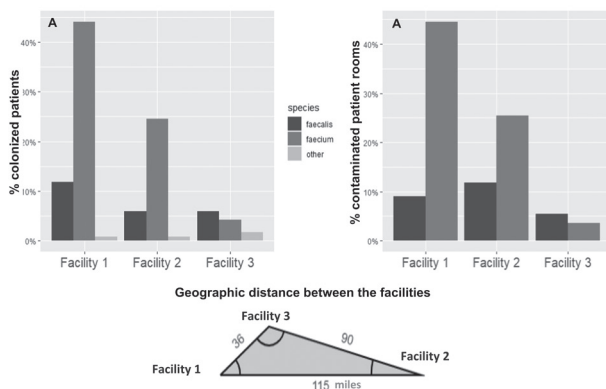
Background: The predominant species of Vancomycin resistant *Enterococcus* (VRE) in hospital associated infections are *Enterococcus faecalis* and *Enterococcus faecium*. Historically, *E. faecalis* has a higher prevalence, however *E. faecium*, which is more often antibiotic resistant, is now on the rise. We aimed to describe the epidemiology of VRE *faecalis* and *faecium* in three VA Community Living Centers (CLCs).

Methods: Ongoing prospective cohort study of MDRO colonization in VA CLCs. Non-redundant VRE strains obtained from patients and their room were identified to the species level (*E. faecalis*, *E. faecium*, or other) using selective and differential plates. The prevalence of each species was compared in VA-CLCs in different locations, for both patient and environmental isolates.

Results: 507 samples (229 room, 258 patient) were collected from three VA CLCs (141 distinct patients). Most samples were positive for *E. faecium* (214 vs. 44 *E. faecalis*, p-value <0.001; 131 vs. 36, p-value <0.001; and 40 vs. 31, p-value 0.046, respectively). Facilities 1, 2 showed higher colonization with *E. faecium*: 52 (77.61%) and 29 (78.38%) patients, respectively, and 42 (83.05%) and 28 (68.29%) rooms, respectively. Facility 3 had more patients and rooms colonized with *E. faecalis*, with only 5 (35.71%) patients and 4 (40%) rooms having *E. faecium* colonization (p-values vs. facility 1 and 2 of 0.0051, 0.01, respectively) (Figure).

Conclusions: Among VRE, the proportion of *E. faecium* samples to *E. faecalis* samples differed significantly, indicating that unique patient or facility characteristics could be driving different epidemiological trends.

Figure: Patient (A) and Environmental (B) contamination with VRE species in the three study facilities



C43 Student Presentation

Prevalence of CVD in patients with dementia: NACC data

H. Kim, A. Kulshreshtha, L. De Wit. *Emory University School of Medicine, Atlanta, GA.*

Background:

Cardiovascular diseases (CVD) and CVD risk factors such as hypertension and diabetes lead to cognitive decline and dementia. Several mechanisms have been suggested including atherosclerosis and ischemic lesions that affect neuronal networks. Few studies have compared dementia prevalence in different CVD subtypes as well as related cardiac interventions.

Methods:

We conducted a retrospective cross-sectional analysis using data from the National Alzheimer’s Coordinating Center (NACC) to examine the association of CVD subtypes with dementia (Variable name: DEMENTED) at the baseline visit (September 2005 - March 2023).

CVDs and CVD procedures were classified into seven categories: 1) heart attack/cardiac arrest, 2) atrial fibrillation, 3) congestive heart failure, 4) angioplasty/endarterectomy/stent, 5) pacemaker and/or defibrillation, 6) cardiac bypass procedure, 7) stroke, 8) transient ischemic attack and 8) others. We compared the prevalence of dementia in patients with and without CVD subtypes calculating prevalence ratios (PR) from log-binomial regression results adjusting for sex, age, race, years of education, diabetes, hypertension, and dyslipidemia.

Results:

In a total of 44,400 participants aged 50 and older (age mean= 72, SD=9.3), 80 % were Whites, 14% Blacks, 57% were women, 34% had dementia and 29% had CVD. In the unadjusted analyses, dementia was associated with CVD (PR, 1.1, 95% CI, 1.07-1.13). After adjusting for demographics and CVD risk factors, the PR of dementia was 1.03 (PR%, 1.00-1.06). The prevalence of dementia differed by CVD subtypes; stroke (PR, 1.30, 95% CI, 1.25-1.35), pacemaker/and or defibrillator (PR, 1.18, 95% CI, 1.12-1.26), transient ischemic attack (PR, 1.11, 95% CI, 1.05-1.17), congestive heart failure (PR, 1.10, 95% CI, 1.02-1.18), heart attack/ cardiac arrest (PR, 1.06, 95% CI, 1.00-1.11), cardiac bypass procedure (PR, 0.99, 95% CI, 0.93-1.03), angioplasty/endarterectomy/stent (PR, 0.98, 95% CI, 0.93-1.03), and atrial fibrillation (PR, 0.94, 95% CI 0.90-0.99).

Conclusions: The prevalence of dementia differs by type of CVD and cardiac procedures. Future studies may assess whether types of CVD may affect need for screening for cognitive impairment.

C44 Student Presentation

Lipid Trends Among Older Adults in New York City in Context of the COVID-19 Pandemic (2017-2022)

N. F. Ali,¹ S. Conderino,² M. Weiner,³ R. Vedanthan,² L. Thorpe,² J. Dodson.² *1. Georgetown University School of Medicine, Washington, DC; 2. NYU Langone Health, New York, NY; 3. Weill Cornell Medicine, New York, NY.*

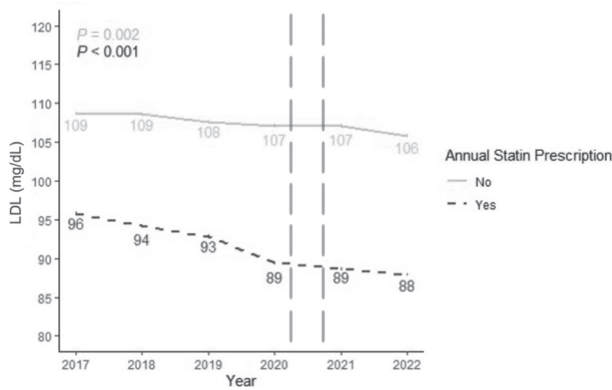
Background: The COVID-19 pandemic disrupted ambulatory care for millions of older Americans with multiple chronic medical conditions. We asked whether this disruption affected control of dyslipidemia by analyzing longitudinal electronic health record (EHR) data from New York City (NYC), the epicenter of the first wave.

Methods: We analyzed EHR data from the NYC-INSIGHT Network (5 NYC academic medical centers), standardized to a common data model, from 2017-2022. We included all patients age ≥50 years with ≥2 comorbidities (e.g., diabetes, heart failure) and at least one ambulatory LDL value. We examined trends from 2017-2022 in patients with and without statin prescriptions. We used a trend study analysis, looking at data from each year discretely.

Results: Patients (n=362,500) in the sample had a mean age of 68.6 years; 58.5% were women and 43.7% non-white. There was a steady decline in LDL over the study period among both statin users and non-users, with no discernible reversal of this trend after the COVID-19 acute pandemic shutdown (Figure). Statin users had lower LDL values in all years. Overall, a higher proportion of the population was prescribed statin therapy in 2022 compared with 2017 (57.5% vs. 49.3%, P<0.001).

Conclusions: Among a large, diverse cohort in NYC, LDL levels steadily declined from 2017-2022 with no discernible reversal after the acute COVID-19 pandemic shutdown. Reasons for LDL decline may include lifestyle changes among statin non-users, more intensive dosages among statin users, and food industry changes in the use of saturated fats.

LDL in NYC-INSIGHT Network, 2017-2022, with acute phase of pandemic (3/7/20-7/9/20) indicated.



C45 Student Presentation
Investigating the Role of Socioeconomic Status Measures in Adults with Knee Osteoarthritis Receiving a Diet and Exercise Intervention

J. Moon,² R. Cleveland,¹ L. Callahan.¹ 1. Department of Medicine, Division of Rheumatology, Allergy, and Immunology, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC.

Background: Knee osteoarthritis (KOA) is one of the most common disabling joint disorders worldwide with greater prevalence and morbidity in older adults and individuals with lower socioeconomic status (SES). While clinical treatment guidelines recommend diet and exercise to improve health outcomes, the impact of SES on lifestyle intervention outcomes is unknown.

Methods: This was a secondary analysis of Weight-Loss and Exercise for Communities with Arthritis in North Carolina (WE-CAN), a pragmatic, 3-center, randomized clinical trial. We evaluated WE-CAN participants randomized to the diet (low-calorie recipes and meal replacements) and exercise intervention (aerobic walking and resistance training) with baseline and 18-month follow-up assessments (n=335). Outcomes included Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain and physical functional limitation measures. Predictor variables included individual-level SES measures (education [college degree or not], occupation [professional or not], income [\geq \$50k or $<$ \$50k]) and block group-level SES measures (% female head of household with dependents under 18 years old in block group [quartiles]). Repeated-measures mixed linear regression models were used to analyze mean change in WOMAC pain and function according to SES measures, adjusted for baseline outcomes, age, sex, race, BMI, and site.

Results: Participants (72% White, 77% women, mean age 65 years) demonstrated less improvement in pain (1.47 [0.60, 2.33], $p < 0.001$) and physical functional limitation (3.49 [0.59, 6.40], $p = 0.019$) among those with a non-professional versus professional occupations. Education, income, and percentage of female heads of household with dependents under 18 years old in the block group were not associated with changes in pain or functional limitation.

Conclusion: Occupation was shown to be associated with pain and physical function changes following a diet and exercise intervention in older adults who are overweight or obese with KOA. Our findings suggest that SES, among other predictors, may influence pain and physical function outcomes in diet and exercise interventions for older adults with KOA.

C46 Student Presentation
Global and United States Trends of Immune Mediated Inflammatory Diseases in Older Adults

A. Gelabert-Mora,^{1,2} K. Abuabara.² 1. Escuela de Medicina San Juan Bautista, Caguas, Puerto Rico; 2. Dermatology, University of California San Francisco, San Francisco, CA.

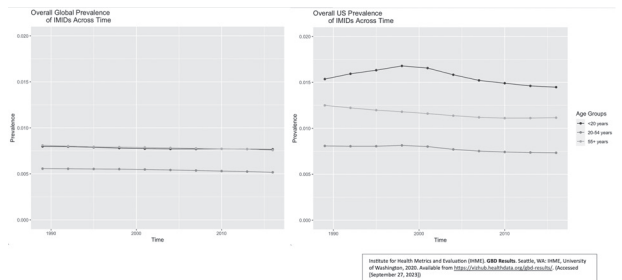
Immune-mediated inflammatory diseases (IMIDs), including psoriasis (Pso), atopic dermatitis (AD), multiple sclerosis (MS), inflammatory bowel disease (IBD) and rheumatoid arthritis (RA) are diseases that have a chronic course with sporadic flares. Data on trends in the epidemiology are limited, especially in older adults. Our study sought to describe and compare trends in the global and United States (US) prevalence of IMIDs across age groups, sex, and sociodemographic index (SDI) over time.

We estimated global and US IMID prevalence using data from the Global Burden of Disease Study, a living database hosted by the Institute of Health Metrics Evaluation at the University of Washington. We plotted prevalence data from 1990-2018, and assessed predictors for IMIDs as a group and individually (AD, Pso, RA, MS and IBD) by age group, sex, region (global, US, SDI) and across time, using logistic regression models.

The mean prevalence of aggregate IMIDs from 1990-2018 was 0.70% globally and did not change significantly across time. Prevalence was higher among high SDI countries (1.19% vs 0.30% among low SDI), and among females (0.80% vs 0.60% for males globally). When comparing age groups, rates were highest among older adults, and children and adolescents (0.78% for <20 years and 55+ years, Figure 1). Multivariable models identified female sex, higher SDI, and ages <20 or >55 as predictive of higher IMID prevalence. While trends were similar among individual IMIDs, age >55 years was not predictive of AD.

Compared to global rates, IMID prevalence was higher in the US (1.16% and 1.14% among adults age 55+). Temporal and sex differences were similar to global patterns.

We found stable but high rates of IMIDs among older adults. Although some IMIDs like AD and IBD are traditionally described in younger populations, it is important for clinicians to recognize that they are also very common among older adults.



C47 Student Presentation
Heart failure caused by hypertensive heart disease in geriatric population within the United States from 1990-2019: A burden and trend analysis.

R. Cortorreal Javier, M. Luis Sierra. UNIBE medical school DR, Santo Domingo, Dominican Republic.

Background

In the United States, 70% of adults ≥ 65 years have hypertension. Chronic hypertension induces left ventricular hypertrophy which will lead to heart failure. The aim of this study is to assess the trends and burden of hypertensive heart disease induced heart failure in the United States.

Methods

Data was extracted from Global Burden of Disease Study 2019. Prevalence and Years Lived with Disability (YLDs) were analyzed by

age, year and location from 1990-2019 in the population 70+ years. To analyze the burden trend, annual percentage change (APC) was used.

Results

In USA from 1990-2019, heart failure caused by hypertensive heart disease had a prevalence APC of 1.33(95%UI:0.95-1.86), from 371,841(95%UI:231,857-574,612) in 1990 to 865,638(95%UI:566,211-1,267,087) in 2019; the location with the highest prevalence per 100,000 habitants was District of Columbia with an APC of 0.22(95%UI:-0.01-0.57), from 2,887(95%UI:1,762-4,450) in 1990 to 3,523(95%UI:2,343-5,147) in 2019; the higher APC prevalence was in Massachusetts with 1.75(95%UI:1.27-2.40). Regarding YLDs, the trend APC was 1.32(95%UI:0.95-1.85), from 33,461(95%UI:17,726-57,638) in 1990 to 77,733(95%UI:42,973-128,581) in 2019; the location with the highest YLDs per 100,000 habitants was District of Columbia rising from 258(95%UI:138-440) in 1990 to 316(95%UI:175-513) in 2019 and an APC of 0.22(95%UI:-0.01-0.59); the location with the highest APC of YLDs was Nevada with 5.67(95%UI:4.07-8.63). The age group with the greater prevalence and YLDs burden was 70-74 years, females with a higher burden than males.

Conclusions

Hypertensive heart disease is an important cause for heart failure with a concerning rising trend, as the primary disturbance is a modifiable etiology, addressing it is the key to improve the outcomes and quality of life. Further research should be focused on improving sex related differences outcomes.

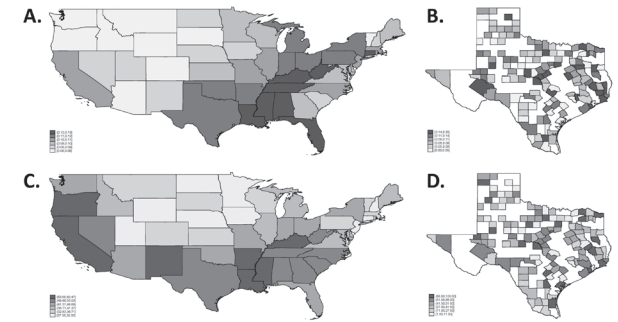
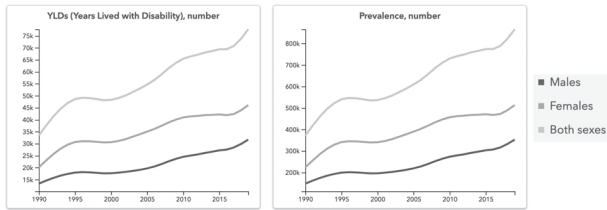


Figure 1. Frailty Prevalence and Social Determinants Index (SDI) Mapping of Medicare Beneficiaries (≥65) by State and County Level. (A) Frailty prevalence by state level*. (B) Frailty prevalence by county level in Texas. (C) SDI by state level*. (D) SDI by county level in Texas. *Hawaii, Alaska, and US territories not shown in map but included in analysis

A. Temporal Trend Differences of heart failure caused by hypertensive heart disease in The US From 1990-2019, +70 years old.

C48 Student Presentation
Mapping Frailty Prevalence and Social Deprivation in the United States

L. Zhong,^{1,3} S. M. Sison,^{2,3} M. Cheslock,⁴ Y. Liu,³ N. Newmeyer,³ D. H. Kim.³ 1. University of Connecticut School of Medicine, Farmington, CT; 2. University of Massachusetts Chan Medical School, Worcester, MA; 3. Hebrew SeniorLife, Boston, MA; 4. VA Bedford Healthcare System, Bedford, MA.

Background: It is unclear how geographic location and social determinants of health correlate with frailty prevalence in the United States.

Methods: We used a 5% random sample of Medicare fee-for-service beneficiaries 65 years and older whose claims-based frailty index (CFI) and social deprivation index (SDI), a measure of area-level social determinants of health, were available. We created frailty prevalence (frailty defined as CFI ≥0.25) and SDI heat maps, and estimated Spearman’s correlation coefficient between frailty prevalence and SDI by county and state levels.

Results: The overall sample size was 1,207,323 (mean age: 76, female: 56%). Overall frailty prevalence in the United States was 10.3%. Mean SDI was 43.9 out of 100. Examples of frailty prevalence and SDI maps by state and county level are shown (Figure 1). There was modest correlation between areas of high social deprivation and frailty prevalence (p=0.28 by county; 0.38 by state).

Conclusion: This study identifies regions of the United States that may be most vulnerable to poor health from frailty and social deprivation. This information lays a foundation for assessing combined effects of frailty and SDI on mortality and health care utilization.

C49 Student Presentation
Body Mass Index and Trajectories of Muscle Strength and Physical Function Over Time in Mexican American Older Adults: Sex Differences

A. Davis,¹ S. Al Snih.^{2,3} 1. The University of Texas Medical Branch at Galveston School of Medicine, Galveston, TX; 2. Population Health and Health Disparities, The University of Texas Medical Branch at Galveston School of Health Professions, Galveston, TX; 3. Geriatric/IM, The University of Texas Medical Branch at Galveston, Galveston, TX.

Background: Worldwide there has been an increase in the prevalence of individuals who are considered overweight or obese according to body mass index (BMI) categories. This trend is prevalent among those ≥ 65 years of age. We aim to examine the relationship between BMI and muscle strength and physical function among Mexican American older adults over 23 years of follow up.

Methods: Participants (N= 1975) were from the Hispanic Established Population for the Epidemiological Study of the Elderly (1993/94-2016). Measures included socio-demographics, medical conditions, depressive symptoms, pain, disability, cognitive function, BMI, short physical performance battery (SPPB), and handgrip strength (HGS). Participants were divided by BMI category: <18.5 kg/m2, underweight; 18.5–24.9 kg/m2, normal weight; 25–29.9 kg/m2, overweight; 30–34.9 kg/m2, class I obesity, and BMI ≥ 35 kg/m2, class II/morbid obesity. Linear mixed models estimated the population average change in SPPB and HGS as a function by BMI.

Results: Male participants in the overweight category (β = 0.56; SE = 0.29; p-value=0.0535) and class I obesity (β=1.08; SE=0.39; p-value=0.0062) scored higher in HGS than those with normal weight. Female participants in the overweight category (β=0.65; SE=0.18; p-value=0.0003) and class I obesity (β=0.92; SE=0.22; p-value=0.0001) scored higher in HGS than those with normal weight. Male participants in the overweight category (β=0.46; SE=0.11; p-value=0.0001), class I obesity (β=0.43; SE=0.15; p-value=0.0037), and class II/morbid obesity (β=0.66; SE=0.29; p-value=0.0246) scored higher in the SPPB than those with normal weight. Female participants in the overweight category (β=0.49; SE=0.10; p-value=0.0001) and class I obesity (β=0.32; SE=0.11; p-value=0.0047) scored higher in the SPPB than those with normal weight.

Conclusion: Participants with a BMI categorized as overweight or class I obesity experienced a slower decline in muscle strength and physical function. The results of our study suggest the protective effect of overweight and obesity category I against decline in muscle strength and physical function in Mexican American older adults.

C50 Student Presentation
Association Between Diabetic Retinopathy and Self-Reported Diabetes in the 60+ Population in the “All of Us” Research Program

D. Doustmohammadi,¹ R. Talebi,² A. Coleman,² A. Santana,² F. Yu,² V. Tseng.² *1. California Northstate University College of Medicine, Elk Grove, CA; 2. Department of Ophthalmology, UCLA Jules Stein Eye Institute, Los Angeles, CA.*

Background

Understanding of diabetes mellitus (DM) diagnosis is assumed to be essential in an individual’s ability to manage their diabetes. This study investigates the association between self-reported DM and diabetic retinopathy (DR) among participants aged 60+ with DM in electronic health records (EHRs) in the National Institutes of Health “All of Us” (AoU) Research Program.

Methods

The study population included AoU participants aged 60 and above with DM1 or DM2 on EHRs. The exposure was self-reported DM based on survey responses that were categorized as “Yes” for self-reported DM, “No” for denied DM, and “Skipped” for no responses to the question. The outcome of interest was DR diagnosis. Multivariable logistic regression models were used to examine the association between DR and self-reported DM status, adjusting for age, sex at birth, race and ethnicity, income, education, health literacy, and ophthalmoscopy screening.

Results

Of the 29,587 participants in this study, 7,250 (24.5%) were in the “Yes” group, 5,432 (18.4%) in the “No” group and 16,905 (57.1%) in the “Skipped” group. The “Yes” group had the highest DR prevalence (16.2%) followed by the “Skipped” (14.2%) and the “No” groups (3.9%). The proportion of those who had Current Procedural Terminology codes for ophthalmoscopy was 25.0% in the “Yes” group and 21.8% and 22.4% in the “No” and “Skipped” groups respectively. The “Skipped” group had the highest proportion of non-Whites (52.7%), less than high school education (17.6%), <10k income (13.7%), and lowest health literacy with 10.2% “always” or “often” having difficulty reading healthcare information. The “No” group (adjusted odds ratio [aOR]: 0.20; 95% confidence interval [CI]: 0.17-0.23) and the “Skipped” group (aOR:0.76; 95% CI: 0.70-0.83) had lower odds of having DR than the “Yes” group.

Conclusions

Among AoU participants with DM, those who skipped self-report had different demographics, fewer eye exams than those who self-reported DM, and had the second highest prevalence of DR as well as risk of being diagnosed with DR. These differences should be further examined to improve participation in healthcare initiatives.

C51 Student Presentation, Encore Presentation
Demographic Changes Among Patients Presenting for PCI; Evidence of A Rapidly Changing Patient Population

R. S. Patel,¹ D. Kalil,² Z. Yu,² J. S. Rossi.² *1. Drexel University College of Medicine, Philadelphia, PA; 2. The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background:

There have been significant advances in the ability to treat calcified coronary artery disease by percutaneous coronary intervention (PCI), and the >75 patient population in the United States has been growing. We hypothesize that significant demographic shifts in the United States, coupled with these technological innovations in PCI, have changed the demographics of the patient population presenting for PCI.

Methods:

Data from 11,906 PCI procedures at two large tertiary centers were retrospectively analyzed. Two cohorts were established: patients undergoing PCI between July 2009 and June 2012 (Cohort A, N = 3743)

and between July 2019 and June 2022 (Cohort B, N = 8163). Statistical analyses included Analysis of Variance, Chi-squared tests, and Kruskal-Wallis rank sum tests.

Results:

Results indicate that Cohort B had a higher mean age (67.01 vs. 64.30, $p < 0.001$) and a greater proportion of patients over 70 years old (43.9% vs. 34.2%, $p < 0.001$) compared to Cohort A. Cohort B also exhibited higher mean weight (89.13 kg vs. 87.88 kg, $p < 0.001$) and a marginally significant increase in BMI (29.88 vs. 30.10, $p = 0.048$). While gender and dialysis history showed no significant differences, active smoking decreased significantly (24.6% vs. 18.7%, $p < 0.001$) in Cohort B. Notably, patients with coronary artery bypass graft history decreased (18.2% vs. 16.0%, $p = 0.003$), whereas those with PCI history increased (41.5% vs. 43.6%, $p = 0.028$). Noteworthy increases were observed in patients with diabetes (44.4% vs. 38.6%, $p < 0.001$) and congestive heart failure (35.1% vs. 12.2%, $p < 0.001$) in Cohort B.

Conclusion:

This study highlights a substantial demographic shift in PCI recipients over the decade, aligning with the aging US population. Furthermore, patients receiving PCIs displayed an increased prevalence of comorbidities such as diabetes and congestive heart failure. Future research should investigate the clinical implications of these trends and their effects on procedural outcomes.

C52 Student Presentation
Healthcare Utilization for Balance Problems in the United States

S. Kapur, K. S. Sakyi, J. Haworth, D. J. Goble. *School of Health Sciences, Oakland University, Rochester, MI.*

Background

Balance disorders, highly prevalent in the elderly, can result in fatal or debilitating falls. Despite the availability of effective fall prevention interventions, falls and related injuries are on the rise. This study investigates the factors associated with healthcare utilization for balance problems in community-dwelling adults in the United States (US).

Methods

Study design: Epidemiological survey analysis.

Survey data: National Health and Nutrition Examination Survey 2001-2004, which is a nationally representative sample of noninstitutionalized civilian resident population of the US.

Population: Adults over the age of 40 years who reported having balance problems in the past 12 months.

Measures: The outcome measure was whether the individual ever saw a doctor or other health professional for balance, dizziness, or light-headedness problems. Selection of predictors was based on a literature review, guided by the Andersen Healthcare Utilization Model.

Analyses: All analyses were adjusted using probability sampling weights. Binary logistic regression was used to estimate adjusted odds ratio (AOR) and 95% confidence interval (CI) of using healthcare for balance problems.

Results

A total of 1834 adults, who reported having balance problems were included in the study. About 62.26% were females, with 76.77% being Non-Hispanic Whites, 9.37% Non-Hispanic Blacks, 8.81% Hispanics; 45.35% had more than high school education, and 58.81% were married/living with a partner. Annual family income was above \$20,000 for 65.29% of the participants. About 25.84% of the individuals with balance problems reported having falls in the past year. Mean age was 60.08 years (0.457 standard error). Out of the individuals who reported having balance problems, only 32.13% sought healthcare services for balance problems. Predictors that were significantly associated with increased utilization of healthcare services for balance problems were: falls in the past year (AOR 1.29; 95% CI, 1.03-1.61; $p = 0.03$),

age (AOR 0.98; 95% CI, 0.97-0.995; p =0.009), having access to healthcare provider in the past year (AOR 2.47; 95% CI, 1.20-5.09; p =0.02), and having health insurance (AOR 1.93; 95% CI, 1.18-3.14; p =0.01).

Conclusions

The study findings can inform screening and education efforts to promote the use of health services and timely management of balance problems, resulting in improved patient outcomes.

C53 Student Presentation

Factors associated with self-reported usability of a virtual reality vision test in older adults with glaucoma

Q. Porter,² n. de la Osa,³ M. T. Christensen,³ G. Treadwell,² J. B. Bond,² A. C. Thompson.¹ 1. *Ophthalmology; Geriatrics and Gerontology, Wake Forest Baptist Medical Center, Winston-Salem, NC;* 2. *Ophthalmology, Atrium Health Wake Forest Baptist, Winston-Salem, NC;* 3. *Wake Forest University School of Medicine, Winston-Salem, NC.*

Background: Glaucoma is a leading cause of blindness and requires frequent clinical monitoring of vision which can be burdensome for older adults. New portable virtual reality (VR) systems are quick and accurate and may be able to facilitate remote vision monitoring. This study assessed the usability of a VR headset for visual function testing in older adults with glaucoma diagnoses. Methods: Cross-sectional pilot of 67 adults age 65+ years with glaucoma diagnoses who completed ETDRS visual acuity (VA) and Pelli Robson contrast sensitivity (CS) tests. Participants were instructed on how to use a VR headset to perform a 24-2 visual field test and vision battery. They then answered a 10-item questionnaire about the usability of the VR system. Results: Participant mean age was 73.9+/-5.6 years; 46% were female (N=31), 34% were black (N=23), 83.6% had glaucoma (N=56) and 16.4% were glaucoma suspects (N=11). More than 83.5% of participants agreed they would “like to use the system” and 77.6% agreed the “system was easy to use”. However, participants with worse log CS (p=0.007), worse logMAR VA (p=0.015), and older age (p=0.0112) were less likely to agree that the VR “system was easy to use.” Those with older age (p=0.014) were also more likely to indicate they “would need the support of a technical person to be able to use” the VR system. Participants with worse logMAR VA (p=0.036) were more likely to disagree that the “various functions in the system were well integrated.” Those with worse log CS (p=0.0229) and logMAR VA (p=0.037) were more likely to disagree that “most people would learn to use this system very quickly.” There were no differences in the responses on the usability questionnaire by sex or race. Conclusions: A majority of older adults with glaucoma diagnoses said they would like to use a VR based platform for vision testing. However, those with worse vision and older age expressed more reservation about the usability of the system and were more likely to require technical assistance. Such systems will need to address the concerns of older adults with visual impairment in order to be effectively integrated into the home-based or clinical care of older adults.

C54 Student Presentation

Rheumatic heart disease in geriatric population: Trends and burden in United States, 1990-2019.

R. Cortorreal Javier, M. Luis Sierra. *Medical School, Universidad Iberoamericana UNIBE, Santo Domingo, Dominican Republic.*

Background

Rheumatic heart disease is a complication of rheumatic fever that leads to valve damage. It is commonly associated with the younger population, but the elderly can also be affected. The aim of this study is to assess the burden and trends of Rheumatic heart disease in the elderly.

Methods

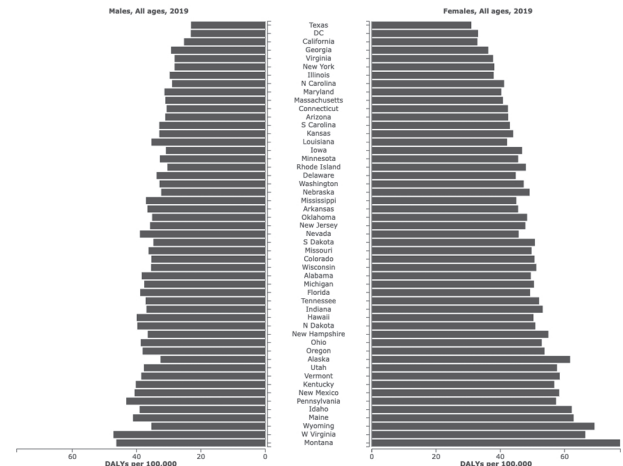
Data is extracted from Global Burden of Disease Study 2019. Rates per 100,000 of prevalence and disability-adjusted life years (DALYs) were analyzed by age, year and state from 1990-2019 in the United States in the population +70 years. To analyze the burden trend, annual percentage change(APC) was used.

Results

From 1990-2019, prevalence per 100,000 of rheumatic heart disease in adults +70 years went from 965(95%UI:755-1,195) in 1990 to 1,156(95%UI:1,030-1,289) in 2019; females had a prevalence rate from 1,015(95%UI:790-1,255) in 1990 to 1,196(95%UI:1,069-1,337) in 2019 and an APC of 17.88%(95%UI:1.00-41.91), males went from 884(95%UI: 691-1,099) in 1990 to 1,104(95%UI:976-1,235) in 2019 and an APC of 24.90%(95%UI:7.29-51.72). Geographically, In 1990 the highest prevalence rate was in New York with 1,215(95%UI: 968-1,471), in 2019 the highest burden was in Florida with a rate of 1,755(95%UI:1,576-1,954); highest APC prevalence rate was Tennessee with 50.78% (95%UI:31.83-78.63). Age group with highest prevalence was the 95+ age group with a rate of 2,276(95% UI:1,930-2,722) in 2019.

Conclusion

Rheumatic heart disease in the elderly had an upward trend over-time with higher burden in females, but with a most significant growth per year in males, the prevalence and DALYs rate differences should be a call for further research.



C55 Student Presentation

Falls as a cause of death or injury in the geriatric population within the United States from 1990-2019: A burden and trend analysis.

M. Luis Sierra, R. Cortorreal Javier. *UNIBE medical school DR, Santo Domingo, Dominican Republic.*

Background

The geriatric population has a greater tendency to fall for different reasons, which sadly, increase their chances of severe injuries and/or premature death. The aim of this study is to assess the quantity of falls as a cause of death or injury within the geriatric population in the United States between 1990 and 2019.

Methods

Data was extracted from Global Burden of Disease Study 2019. Incidence, prevalence, number of deaths and DALYs (Disability-Adjusted Life Years) were analyzed by age, year and location from 1990-2019 in the geriatric population 70+ years. To analyze the burden trend, annual percentage change (APC) was used.

Results

In the United States of America from 1990 to 2019, the falls as a cause of death or injury exhibit an incidence APC of 53% (95% UI: 47-59), with a rate of 7,377(95% UI: 5,711-9,310) in 1990 to 11,717(95% UI: 9,231-14,832) in 2019. The prevalence demonstrates an APC of 30% (95% UI: 27-32), with a rate of 34,347(95% UI: 29,882-39,332) in 1990 to 44,654(95% UI: 38,998-50,669) in 2019. On other means, the number of deaths had an APC of 131% (95% UI: 122-141), from 10,424(95% UI: 9,203-11,060) in 1990 to 35,870(95% UI: 30,866-38,793) in 2019 and the location with the highest number of deaths was Florida, with an APC of 209% (95% UI: 183-237), from 559(95% UI: 483-608) in 1990 to 3,002(95% UI: 2,434-3,490) in 2019. Regarding the DALYs, these exhibit an APC of 70% (95% UI: 63-78) with a rate of 1,972(95% UI: 1,550-2,517) in 1990 to 2,980(95% UI: 2,413-3,707) in 2019. At last, Florida had the highest incidence and prevalence rates between 1990-2019. The incidence rate goes from 6,519(95% UI: 4,999-8,283) in 1990 to 11,980(95% UI: 9,306-15,106) in 2019, with an APC of 73% (95% UI: 59-88). The prevalence rate goes from 32,682(95% UI: 28,565-37,523) in 1990 to 46,476(95% UI: 40,644-52,668) in 2019.

Conclusion

Falls as a cause of death or injury have shown a concerning upward trend amongst the geriatric population. Addressing the direct causes of these falls could be the key to improving the outcomes and quality of life for elders.

C56 Student Presentation

Adaptation of a Environmental Distress Scale for Older Immigrant Communities

A. Kuang,^{1,2} S. C. Kwon,² Y. Tan,² S. S. Yi,² L. Doan.²

1. Georgetown University School of Medicine, Washington, DC;

2. Department of Population Health, Section for Health Equity, New York University Grossman School of Medicine, New York, NY.

Background: Residence in ethnic enclaves has been associated with high levels of noise and air pollution; chronic exposure is associated with poor health outcomes and long-term, adverse health disparities. Two large-scale construction projects started in 2023 in Manhattan Chinatown and the Lower East Side, New York – neighborhoods with a high proportion of low-income and limited English proficient (LEP) communities. The purpose of this study is to evaluate the usability and acceptability of the cultural adaptation of the validated Environmental Distress Scale (EDS) for use by community-based organizations and researchers.

Methods: The EDS cultural adaptation and translation process was guided by the participatory cultural adaptation framework for implementation research. The adaptation process included: 1) iteratively gathering feedback on cultural and linguistic adaptations from expert consultations; 2) a scoping review to examine the populations where the EDS has been administered and environmental exposures assessed; 3) interviews to test the EDS relevancy for cultural meaningfulness and equivalency (n=8); and 4) pilot testing the adapted EDS in simplified and traditional Chinese among older adults (n=20).

Results: Adaptations to the EDS included modifying and adding questions for relevancy to local environmental exposures; translation and backwards translation for accuracy of translations; review for idioms and expressions, cultural/conceptual equivalence, and content clarity and understanding. We reviewed 21 articles that administered the EDS. The EDS has been administered in international/rural settings and among varied populations; only one study adapted the EDS for an Inuit population.

Conclusions: Ongoing evaluation of the comprehensiveness and usability of the EDS is being conducted via cognitive interviews and pilot administration of the adapted EDS. This study highlights a community-engaged and robust framework for adaptation of a validated measure for local context and for LEP, low-income older adults with low digital literacy.

C57 Student Presentation

Acute air pollution exposure is associated with poor sleep quality in older US adults

C. Egwudo, H. Scussiato, K. Wroblewski, J. Pinto. *The University of Chicago Medicine, Chicago, IL.*

Background & Aims: Air pollution may affect sleep quality, but data on temporal effects is sparse. We analyzed whether short-term PM_{2.5} exposure is associated with actigraphy-recorded sleep quality metrics in older adults.

Methods: We analyzed cross-sectional data from the National, Social Life and Aging Project (NSHAP), a nationally representative study of older US adults living at home. Estimates of PM_{2.5} exposure levels were computed using previously validated spatiotemporal models. Actigraphy-recorded sleep quality metrics (sleep fragmentation, sleep duration) were treated as dichotomized variables. We performed multivariable logistic regressions to measure the association of PM_{2.5} and these sleep quality metrics, controlling for age, gender, ethnicity, education level, BMI, other health conditions, cigarette smoking, and alcohol consumption.

Results: Mean PM_{2.5} exposure 1-, 7-, and 14-days prior to actigraphy was 8.2, 8.1, and 8.0 µg respectively. PM_{2.5} exposure 14-day prior was associated with greater sleep fragmentation (OR 1.29, 95% CI: 1.02-1.64) with similarly positive trends for shorter exposure windows. Short term PM_{2.5} exposure was also associated with increased sleep duration (1-, 7-, and 14-day prior: OR 1.23, 95% CI: 1.05-1.44; OR 1.34, 95% CI: 1.02-1.77, OR 1.42, 95% CI: 1.01-1.99).

Conclusion: Acute PM_{2.5} exposure is associated with impaired sleep quality in older US adults.

C58 Student Presentation

Role of Patient-Provider Relationship in Overall Health and Well-being of Older LGBTQ Adults

J. Hwang, M. Neelamegam, R. Nhpang. *Texas College of Osteopathic Medicine, Fort Worth, TX.*

Background: LGBTQ aging encompasses the experiences and challenges encountered by lesbian, gay, bisexual, transgender, and queer individuals as they progress through life. LGBTQ individuals face unique obstacles related to their sexual orientation, gender identity, and the historical context in which they have lived. To effectively meet the specific needs of LGBTQ older adults, it's crucial to offer culturally sensitive healthcare and social support within nurturing healthcare communities. We aim to explore how the doctor-patient relationship impacts the overall well-being of LGBTQ seniors.

Method: A secondary analysis of the AARP survey titled “Maintaining Dignity: Understanding Challenges of Older LGBT Americans,” was done. The online survey was conducted between October 27 and November 12, 2017, among adults aged 45 and older who identified as LGBTQ. Data analysis was conducted on SAS statistical analysis software. Descriptive statistics were completed to determine survey participant characteristics. Logistic regression was conducted to assess the association between the patient-provider relationship and overall health after adjusting for demographics and chronic health conditions.

Results: Participants were predominantly white (67.08%), between ages 45-54 years (34.6%) and 55-64 years (34.1%). The majority of the participants self-identified as gay (43%) or lesbian (43%). Most participants described their overall health as “good” or better (85.5%), 71.93% informed their physician about their sexual identity (71.93%) and described their physician-patient relationship as open and honest (71.43%). The patient-provider relationship influenced the overall self-reported health status in our study population. Compared to those who had open and honest discussions with their healthcare providers, individuals with difficult relationships with their providers were less likely to have good overall health (OR 0.098, 95% CI 0.032, 0.298).

Conclusion: In conclusion, the well-being of older LGBTQ adults is significantly influenced by the quality of their relationship with their healthcare providers, emphasizing the crucial role of fostering supportive patient-provider connections and highlighting the imperative for healthcare professionals to be knowledgeable and compassionate in their care of LGBTQ patients.

C59 Student Presentation

Determining Optimal Diet/Exercise Treatment for Patients with Symptomatic Knee Osteoarthritis Using Baseline Gait Forces

A. M. Kostic,³ L. Arbeeva,¹ X. Jiang,¹ Y. M. Golightly,¹ S. P. Messier,² R. F. Loeser,¹ J. E. Borgert,¹ D. De Marchi,¹ J. S. Marron,¹ M. R. Kosorok,¹ A. E. Nelson.¹ *1. The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Wake Forest University, Winston-Salem, NC; 3. Rutgers New Jersey Medical School, Newark, NJ.*

Background: Gait features have been studied as potential mediators of knee osteoarthritis (KOA) progression, but their role in treatment response is not as extensively studied. We examined whether precision medicine models (PMMs) to determine the optimal treatment (diet (D), exercise (E), D+E) for participants in an 18-month trial for KOA could be improved by the addition of baseline gait forces.

Methods: We used a subset of 286 out of 399 participants in the Intensive Diet and Exercise for Arthritis trial, with an average age of 66 years and BMI of 33 kg/m². We selected baseline features to input into four machine learning models, including clinical features and gait ground reaction forces. Models were used to develop individualized treatment rules (ITRs) for change in seven outcomes: weight, WOMAC pain/function/stiffness, tibiofemoral compressive forces, IL-6, and SF36 physical component score. We obtained ITRs using both selected clinical and gait features, as well as selected clinical features alone. Each ITR's performance was evaluated using the estimated value function. We selected the model with the optimal ITR for each outcome and compared its estimated value to that of the optimal fixed treatment model (zero order model, ZOM) as well as the optimal model excluding gait forces, using two-sample z-tests.

Results: We found no statistically significant differences between estimated values of any ZOMs and optimal PMMs with gait, nor between optimal PMMs with and without gait. The only outcome for which the PMM with gait resulted in a higher estimated value than both the ZOM and the PMM without gait was WOMAC function change. This PMM, a reinforcement learning tree, resulted in 92% of individuals being assigned to D+E, 7% to D, and 1% to E.

Conclusions: Our precision medicine models exhibited no statistically significant differences in estimated values for 18-month change in outcomes when including ground reaction forces beyond the optimal ZOM or including only clinical characteristics. However, this exploratory analysis was underpowered to detect differences in estimated values. The utility of ground reaction forces in predicting optimal diet/exercise treatment assignment for individuals with obesity and symptomatic KOA is unclear.

C60 Resident Presentation

Health literacy and other factors associated with self-medication in older people

F. Aviña-Del Pozo,² J. Negrete-Najar,¹ J. Ríos-Nava,² R. Rangel-Tapia,² R. Figueroa-García,² A. Navarrete-Reyes.² *1. Geriatrics, Instituto Mexicano del Seguro Social, Ciudad de Mexico, Mexico; 2. Geriatrics, Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, Ciudad de Mexico, Mexico.*

Self-medication (SM), defined as the use of any medication without the prescription of a licensed health professional, is associated to higher adverse events and polypharmacy, it is common in older adults. In Mexico, there is little information regarding the prevalence of SM in older adults, as well as regarding associated risk factors.

Health literacy (HL) could play a role for this practice. Our aim was to describe the association between the level of HL and SM in older adults in a tertiary center in Mexico. This was a cross-sectional study including 143 participants. Self-medication was defined by self-report in the last 6 months. HL was measured using SAHLSA-50 and HLS-Q16 (the higher the score, the better the literacy). Mean age was 81.2, 76.2% were women, 21.7% of the participants had inadequate HL, and 38.5% reported SM. No association was found between the presence of SM and inadequate HL (p=0.652). Nausea, fatigue, and disability in instrumental activities of daily living were significantly associated with SM. The multivariate binary logistic regression analysis showed that lower education (OR 2.64, 95% CI 1.21-5.76, p=.014) and having a caregiver (OR .329, 95% CI .140-.771, p=.011) were independently associated with SM. These results invite the generation of education strategies for patients with low-medium education with a view to reducing the appearance of the phenomenon of self-medication.

C61 Student Presentation

Aging in Place Among Formerly Homeless Older Veterans Living in Permanent Supportive Housing: Perspectives and Experiences of Veterans and VA Staff Members

M. R. Maitra,^{1,2} K. Su,³ A. Peeples,⁴ O. Goodman,⁴ R. Brown.^{5,4} *1. University of Georgia, Athens, GA; 2. Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA; 3. Cornell University, Ithaca, NY; 4. Corporal Michael J Crescenz VA Medical Center, Philadelphia, PA; 5. University of Pennsylvania Perelman School of Medicine, Philadelphia, PA.*

Background: Aging in place, defined as the ability to live comfortably, safely, and independently in one's own home and community, is a priority for many older adults and a growing focus of research and policy efforts. However, little is known about perspectives on aging in place among the growing population of older Veterans with experiences of homelessness, whose experiences may differ from adults in the general population.

Methods: We conducted qualitative interviews with 21 formerly homeless veterans aged 50 and older living in U.S. Department of Housing and Urban Development-VA Supportive Housing (HUD-VASH) and focus groups with 13 HUD-VASH staff members. We explored their perspectives on aging in place for older veterans in HUD-VASH, including barriers and facilitators, and used rapid qualitative analysis to identify themes.

Results: Interviews and focus groups revealed three main themes: (1) the influence of experiences of homelessness on Veterans' perceptions of aging in place, including the ability to appreciate what is truly important as one ages; (2) the struggle to balance Veterans' desires to be self-reliant with their need for social support and help with daily activities; and (3) the challenges in addressing social factors that influence the ability to age in place, such as limited access to transportation.

Conclusions: These findings provide insight into the unique experiences and challenges of aging in place for formerly homeless older Veterans as well as evidence to guide interventions to enhance aging in place for this growing population.

C62 Student Presentation

A Comparison of State Advance Directive Revisited (2002 vs. 2022): Has Anything Changed?

J. S. Sohmer, D. Peters, S. Fridman, M. Jacomino, G. Luck. *Florida Atlantic University Charles E Schmidt College of Medicine, Boca Raton, FL.*

Background: Advance directive (AD) documents are based on state-specific statutes that vary in structure, terminology, prerequisites, and options. For over thirty years, there have been appeals in the literature across professional disciplines to create a "universal"

document with a uniform framework and simple language to increase completion rates and avoid the possibility of not honoring the wishes of individuals who complete an AD in one state but receive end of life (EOL) care in another. Has anything changed? To examine this, investigators revisited a 2002 article that examined the commonalities and variations in structure and content between ADs.

Methods: ADs from all fifty states and the District of Columbia (51 entities) were searched for seven “key issues”: Proxy, Life Sustaining, Terminal Illness, Artificial Sustenance, Persistent Vegetative, Long-term care (LTC), and Alzheimer/Dementia. The type of documents and key issues were compared to the 2002 study.

Results: There has been a threefold increase in combining LW and durable power of attorney for health care (DPAHC) into a single document. Of the issues, only LTC increased significantly (181%). Despite the increase in Alzheimer’s disease in the US, only 12% of states included the term in 2022.

Conclusion: There has been minimal change since 2002. There continues to be variability in AD structure and terminology. With an increasing mobile population, the inconsistent terminology and structure in ADs can lead to confusion for the family, and healthcare team to ensure EOL wishes are met. We suggest that the Uniform Law Commission reconvene with hospice/palliative physicians and geriatricians to update the Uniform Act for Advance Directives that will address the changing landscape of end of life care and complicated confusing legalese.

C63 Student Presentation

Examining Older Adults’ Views on Healthy Aging and the Service Coordinator Role in Affordable Senior Housing

A. Abiad, J. Graupner, R. Kroplewski, L. J. Gleason, K. Thompson. University of Chicago Division of the Biological Sciences, Chicago, IL.

Background

Low-income older adults face barriers to healthy aging, including managing the burden of housing costs. Publicly subsidized rental units designated for older adults are an affordable housing option; these often have a service coordinator (SC) who helps tenants access resources in their community. Our study aimed to explore how older adults living in affordable senior apartment buildings perceive the relationship between SCs and healthy aging.

Methods

Focus groups were conducted with residents of three affordable senior apartment buildings in medically underserved areas in Chicago. Participants were asked about barriers to healthy aging, resources for healthy aging, and what role, if any, SCs play in supporting healthy aging. Constant comparative analysis was used to identify broader themes emerging from the data.

Results

48 people, all of whom were Black, participated in five focus groups. Participants described many assets for healthy aging, while emphasizing the difficulty of navigating these assets alone. Across focus groups, participants highlighted that SCs can play a crucial role in helping residents overcome challenges to healthy aging by helping them connect with health-related assets. They also expressed a desire for future opportunities to make their voices and suggestions heard.

Conclusions

Older adults view SCs as a key resource for healthy aging. SCs are important and under-recognized collaborators for older adult health and can help provide links between healthcare professionals and community supports.

C64 Student Presentation

ACE Unit Patient Narratives on What Matters Most

M. J. Hatcher,¹ M. Kwak,² D. Giza,² N. Amjad,² R. E. Jantea,² E. Onyema,² R. J. Flores.² 1. The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 2. Geriatric medicine, The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX.

Purpose: This study aims to discover “what matters most” to older adults, how their healthcare team can alter treatment to fit patients’ goals better, and identify which care aspects support their values in an inpatient hospital setting. The study intends to promote autonomy for older adults by establishing a platform for them to open these discussions. By asking, “What matters most to you?” providers can give more patient-focused and tailored care. Most importantly, in patients with many comorbidities, providers can focus on the specific aspects of care that align best with “what matters most” to their patients.

Methods: Participants were inpatients over 65 admitted to the Acute Care for Elderly (ACE) unit at Memorial Hermann Hospital. Participants completed The Saint Louis University Mental Status Examination (SLUMS), UCLA Loneliness Scale, Patient Health Questionnaire, 1-item self-rated Health, and activities of daily living (ADLs) and instrumental activities of daily living (iADLs) assessments. Interviews were done face to face and audio recorded.

Results: Study participants included 15 males and 13 females, ages 66 to 90, with a mean age of 76. The SLUMS scores ranged from 20 to 30, with a mean score of 26. The Loneliness score ranged from 0 to 32 with a mean of 6. The ADLs ranged from 1 to 6 with a mean of 5, and the iADLs ranged from 2 to 8 with a mean of 6. Of the 28 participants, 50% explicitly expressed that family mattered most, while 57% included family in their responses. When asked how healthcare teams can improve care, 21% emphasized enhanced collaboration among healthcare team members. Overall, 50% of patients expressed satisfaction with their healthcare team.

Conclusion: According to our study, “what matters most” to older adults is family. Acknowledging that each patient’s goals and desires are distinct, and patient-centered care should align with what matters to the individual. By asking “what matters most,” providers can enable patients to engage more in what values are significant to them. Further analysis of other specific themes is yet to be explored in a more qualitative analysis of the recordings.

C65 Student Presentation

The Effects of Social and Built Environment of Refugee Camps on Cognitive Aging Among Refugees

N. Amani,¹ R. Behnam,² J. Kaduthodil,² N. Kadri,³ K. Watson.⁴ 1. California Northstate University College of Medicine, Elk Grove, CA; 2. University of California San Diego, La Jolla, CA; 3. Western University of Health Sciences, Pomona, CA; 4. Georgetown University, Washington, DC.

Background: Various features of the social and built environment of urban areas have been shown to influence cognitive aging, but there is a lack of research exploring whether this is the case in refugee camps as well. San Diego, a major refugee resettlement hub, is home to many refugees who have spent substantial time in refugee camps in the Middle East, Asia, and Africa before resettling in America.

Materials/Methods: 35 Arab refugees were recruited through ethnic community-based organizations in San Diego. 43% of these refugees had lived in refugee camps. Interview and focus group transcripts were coded using inductive thematic analysis and analyzed through The Active Aging Framework developed by Lak et al., 2021.

Results: The mean age of the sample was 40.50 (SD = 13.13). The participants’ ages ranged from 20-63 years. 60% were women and 40% were men. Participants mentioned aspects of the social and built environment of the refugee camps being subpar, including 1.

place-related factors such as housing, neighborhood disorder, safety, and climate, 2. health-related factors such as access to healthcare, mental health, trauma, physical health, health literacy, family history, and subjective cognitive health, 3. personal characteristics such as level of education and past medical history, 4. socio-economic factors such as employment, social support, loneliness, policing, poverty, and quality of life, as well as 5. refugee-specific factors such as privacy, nutrition, access to basic needs, loss of self, and perceived discrimination. Participants also reported how they felt that these factors increased their risk of developing dementia in the future.

Conclusion: The severe consequences of trauma and poor living conditions in refugee camps accelerate the perceived and reported cognitive aging and decline of refugees years after they are resettled in the United States. It is imperative that healthcare providers assess and monitor cognitive health of refugee patients over time. The Active Aging Framework should also be expanded to consider the unique circumstances associated with forced migration and displacement. Additionally, public health interventions in refugee camps should prioritize efforts to improve the social and built environment.

C66 Student Presentation

Implementing Person-Centered Technology for Older Adults: Benefits, Limitations and Considerations in Design and Use

P. Mallu,¹ P. D. Sloane,² S. Zimmerman,³ S. Fazio.⁴ *1. Case Western Reserve University School of Medicine, Case Western Reserve University School of Medicine, Cleveland, OH, US, academic/medsch, Cleveland, OH; 2. Family Medicine, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 3. Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 4. Alzheimer's Association, Chicago, IL.*

Background: Technology is ubiquitous in healthcare and used widely by people who provide care to older adults. Much literature exists about innovative technology that can support older adults and their life goals, but little of that research focuses on whether technology achieves person-centeredness, meaning the ability to serve an individual's interest, values, goals and needs. The extent to which technology is developed with a person-centered lens is important if it is to maximize quality of life.

Methods: A total of 51 individuals participated in think-tank meetings: staff who provide care for assisted living residents (n=12), industry leaders of organizations that provide services for older adults (n=30), and two virtual meetings with experts in technology design and aging-related healthcare (n=9). All discussions used prompts related to person-centeredness in technology, and thematic analyses discerned key themes.

Results: Three key themes were identified. First, technology can facilitate or impede person-centeredness depending on its adaptability and the manner in which it is used. Second, co-designing technology with older adults, caregivers, family members and clinicians is critical to eliciting person-centered processes and goals from the end-user. Third, the current digital equity divide prevents technology from reaching a vast proportion of older adults.

Conclusion: Results indicate that end users must be included in technology design, that technology must be adaptable and used in a purposeful manner to promote person-centeredness, and that technology must be more widely available to assure equity. Therefore, nursing homes, assisted living communities, and other settings that care for older adults should train staff in person-centeredness before implementing a new technology, and states using federal funding to bridge the digital divide should be cognizant of older adults who are without broadband access.

C67 Student Presentation

"Who's gonna take care of my babies?" The Impact of Children on Treatment Decisions for Women with Metastatic Breast Cancer: A qualitative analysis

K. E. Tomczik,^{1,2} L. A. Coombs.³ *1. University of North Dakota, Grand Forks, ND; 2. The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 3. School of Nursing, The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Few studies have explicitly examined the impact that children—and grandchildren—have on treatment decisions in metastatic breast cancer (mBC). This qualitative study examined how being a parent or grandparent influences treatment decisions for women with metastatic breast cancer.

Methods: A qualitative sub-analysis with a purposive diverse sample of thirteen women with mBC in the Southeastern United States. Semi-structured interviews were conducted to explore treatment decision making, clinician-patient communication, and patient values relevant to treatment decisions. Transcribed interviews were analyzed, and thematic analysis was used to identify recurrent themes by three independent coders.

Results: Nearly 50% of participants were women of color, 12 had children. Important factors for treatment decision-making involved 7 themes; 5 participants identified children and grandchildren as crucial to their cancer care decisions. Other common factors included side effects (54% of participants) and quality of life (46% of participants). Among participants who identified children as their priority expressed concern about "looking sick". Participants who identified grandchildren as their priority, being able to watch them grow up was important in decision making. For women who identified side effects and quality of life as important, children either provided supportive care or were too young to provide support.

Conclusions: The presence of children and their relationship with participants was important in making treatment decisions for their cancer, rivaling other factors such as quality of life and side effects of treatment. Future tools should integrate questions about family and children, and how these considerations may impact treatment decisions.

C68 Student Presentation

Serious Illness Experiences as a Supplement to Hypothetical Scenarios in Advance Care Planning Among Persons with Cognitive Impairment

G. Thai,¹ V. Hanna,² P. Zhang,³ C. Mulholland,² D. Echavarría,² J. Wolff,² M. Saylor.² *1. Case Western Reserve University School of Medicine, Cleveland, OH; 2. Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD; 3. University of Maryland School of Social Work, Baltimore, MD.*

Background

Eliciting values is crucial to advance care planning (ACP), however contemplating hypothetical scenarios is difficult for persons with cognitive impairment. We explore responses to serious illness experience-based questions during ACP conversations in a trial of older adults (mean age 88 years) with cognitive impairment and their care partners.

Methods

Deductive coding and thematic analysis were performed on transcribed ACP conversations among 88 persons with cognitive impairment and their care partners enrolled in an ACP trial, Sharing Healthcare Wishes in Primary Care (NCT04593472). ACP readiness scores (range: 0-30, higher values indicate greater readiness) were collected from care partners at baseline and 6-months. Cognitive impairment of older adults was categorized as mild/moderate versus severe based on the Modified Telephone Interview for Cognitive Status.

Results

Serious illness experiences in the group with severe cognitive impairment (n=31, mean baseline ACP readiness score=26) commonly involved serious disablement of a relative, sometimes as their surrogate. Most experiences in the severe group increased prioritization of projected quality of life and strengthened preference for comfort care. Serious illness experiences in the group of persons with mild or moderate cognitive impairment (n=13, mean baseline ACP readiness score=24.2) involved inaccurate prognoses, surviving due to life-sustaining procedures, and experience with risk-benefit analysis in surrogate decision-making, mostly increasing prioritization of risk aversion and hesitation toward comfort care during ACP. Care partner-reported readiness to engage in ACP increased more notably for older adults with severe cognitive impairment (p=0.01) and was less notable for the group with mild or moderate impairment (p=0.07).

Conclusion

Serious illness experiences may be a useful framework for value elicitation in the context of cognitive impairment.

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C69 Student Presentation

Testable End of Life Ethics Content and Care of Older Adults

S. W. Youssef,¹ D. J. Doberman,² L. E. Berninger.² 1. *The University of Arizona College of Medicine Tucson, Tucson, AZ*; 2. *The Johns Hopkins University School of Medicine, Baltimore, MD*.

Background: As our population grows older, the likelihood of needing to offer care through a palliative lens, especially for older adults with multiple comorbidities, increases.¹ Despite the significant intersection between geriatrics and palliative medicine, few studies show the integration of geriatric palliative care in practice.¹ A comprehensive understanding of end of life (EOL) ethics is imperative to provide high quality EOL care. The essence of EOL communication stems from understanding modern bioethical principles and how they relate to topics such as informed consent, advance directives, DNR, surrogate decision-making, decision-making capacity, advance care planning/goal setting, withdrawing life-sustaining treatment, and artificial nutrition and hydration.² Hospice and Palliative Medicine (HPM) fellowship training involves teaching fellows relevant ethics topics, acclimating them to discuss and address ethical dilemmas with cultural humility and gain the perspectives of involved stakeholders.³ While HPM arguably provides the standard in EOL ethics training, we sought to understand how similar fields (Internal Medicine, Family Medicine, and Geriatrics) caring for older adults compare.

Methods: This study reviewed EOL ethics content tested by board certification exams and analyzed relative frequencies of EOL ethics categories across and within Internal Medicine (IM), Family Medicine (FM), Geriatrics, and HPM.

Results: The relative frequencies of categories across IM, FM, and Geriatrics were 17% advance directives; 33% surrogate decision-making; 33% decision-making capacity; and 17% advance care planning/goal setting. The relative frequencies of categories within specialties were 16.7% FM; 33.3% IM; and 50% Geriatrics. Compared to HPM at a control of 100%, the EOL ethics content in FM was 25%, IM 50%; and Geriatrics 75%.

Conclusions: Our findings indicate that end-of-life ethics content tested on these board certification exams vary across specialties. Given this variance, standardizing EOL ethics training presents an opportunity for educational improvement and enhancing optimal care of older adults.

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C70 Student Presentation

Ethical Analysis of For-Profit Market Competition and its Impact on Live Discharge from Hospice

Z. Nylund, K. Costello. *Albany Medical College, Albany, NY*.

Background: Live Discharge from hospice occurs when a patient is discharged from hospice prior to their death. A surge in for-profit market competition has increased the number of for-profit hospices in the U.S., along with worse outcomes related to live discharge. For-profit hospice organizations are seen to have a narrower range of services, fewer nursing visits, and higher rates of live discharge, hospitalizations and emergency room visits. De-certification, an act of declaring someone no longer terminally ill, revokes the ability for patients with ambiguous end of life timelines to stay in hospice. This form of live discharge, while seeking to foster a just utilization of resources, may unfairly deprive beneficiaries of the model of care that best aligns with their goals. This paper explores how the for-profit market competition that drives hospice enrollment and discharge criteria may promote injustice to vulnerable populations.

Methods: It is proposed that for-profit market competition in hospice promotes injustice through de-certification because it unfairly impacts vulnerable or marginalized groups and denies patients' right to quality care. These two premises are presented, along with other perspectives synthesized in relation to current literature.

Results: This analysis of live discharge from hospice reveals a complex ethical dilemma involving the principles of justice, beneficence, patient rights, and autonomy. While de-certification may attempt to allocate resources effectively, it often disproportionately affects marginalized groups, specifically those with ambiguous timelines such as patients with Alzheimer's disease and dementia.

Conclusion: De-certification not only denies access to quality end of life care, but also violates fundamental principles of justice and beneficence. Overall, we need to critically examine profit-driven motives within end-of-life care, emphasizing an importance in reforming hospice practices to ensure equitable access to quality care for all patients, regardless of prognosis or financial concerns.

C71 Resident Presentation

Music Therapy Group Pilot in Primary Care for Veterans with Mild Cognitive Impairment or Dementia

J. Sharninghausen,^{1,2} D. Palese,³ R. Blake,³ R. Brienza.^{1,2} 1. *Yale University Department of Internal Medicine, New Haven, CT*; 2. *General Internal Medicine, VA Connecticut Healthcare System, West Haven, CT*; 3. *Recreation and Creative Arts Therapies, VA Connecticut Healthcare System, West Haven, CT*.

Background: Group music therapy improves loneliness and depressive symptoms among institutionalized older adults. There is a pressing need for music therapy for community-dwelling older adults with mild cognitive impairment (MCI) or dementia, who are at risk of social isolation. We developed a music therapy group pilot at a VA medical center, with goals to 1) build a partnership between Music Therapy and Primary Care, and 2) understand the effect of music therapy on Veterans' mood and loneliness.

Methods: Recruitment through clinic flyers and staff referrals focused on outpatients with MCI or dementia, though no formal diagnosis was required. A total of 8 weekly, hourlong sessions were led by a Board-Certified Music Therapist. Sessions included active music making and reflective conversations. To assess program effectiveness, brief surveys and semi-structured interviews were completed at various time points.

Results: 5 Veterans and 1 spousal caregiver participated. Veteran mean age was 74 (range: 67 - 79); male gender 80%, non-binary 20%; non-Hispanic White race 60%, Black 20%, Hispanic 20%; dementia diagnosis 40%, unknown 60%. Physical impairments included legal blindness (20%) and use of walker or wheelchair (80%). From first to last session, there was a significant decrease in average score on the

6-item DeJong Gierveld Loneliness scale from 4.4 to 2.6 ($P=0.02$), with most improvement seen in the emotional loneliness domain. Favorite instruments included bongo drums, HAPI drum, and xylophone. Common themes emerged from interviews: camaraderie, accessing a range of emotions and memories, and finding musical expression that's not tied to any prerequisite. A highlight was when the group set to music a member's original poem about difficult wartime experiences. 100% of Veterans enjoyed participating, recommended music therapy to others, and wished to participate again.

Conclusions: A music therapy group for outpatient Veterans with memory issues or dementia reduced loneliness and facilitated authentic connections. Policy change is needed to integrate Music Therapists into primary care geriatrics teams. Future research should describe best practices for music therapy program expansion among older Veteran and civilian populations.

C72 Student Presentation

Immunoprofiling across the lifespan of female BALB/c mice during mammary carcinogenesis

T. Akbarzadeh,² E. Franco,^{2,1} M. de la Concha,² L. Ma,² W. Chou,² M. Barcellos-Hoff.² 1. *The University of Texas Rio Grande Valley School of Medicine, Edinburg, TX*; 2. *Radiation Oncology, University of California San Francisco, San Francisco, CA*.

Background

Aging is linked to immunosuppression that heightens vulnerability to infections, cancer, and autoimmunity. In older individuals, myeloid cells are more prevalent in the immune system than lymphocytes. Lymphocytes are essential in anti-tumor immunity. Ionizing radiation is also thought to quicken aging by triggering inflammation, contributing to carcinogenesis. We conducted a comprehensive analysis of the immunological consequences of radiation as a function of age at exposure to test the hypothesis that radiation induced inflammation accelerates aging and carcinogenesis.

Methods

Cohorts of pre-pubertal, pubertal, young adult, and mature mice were sham-irradiated or irradiated with a low dose (50 cGy) prior to transplantation with *Trp53* null epithelium, which has a high frequency of transforming to carcinomas. To reduce inflammation, aspirin was given to half of each group for 6 months. Four mice / group were sacrificed at 4, 8 and 18 months to collect blood. The remaining mice were monitored until a tumor formed or until termination at 550 days post-transplant. Blood samples were immunostained with a panel of cell markers and analyzed via flow cytometry. Our gating process on FCS Express distinguished our distinct cell types. Graphs were generated using Prism and a clustered heatmap using SRplot.

Results

Immune cell populations were compared between control mice and mice irradiated at 10 weeks of age after 4 months, 8 months and 18 months. Compared to 4 months, mice at 8 months post treatment had more B cells and fewer T cells, whereas NK and dendritic cells were increased at 18 months. At 4 months, mice that had been irradiated had more B cells, similar to those at 8 months, and increased dendritic cells and classical dendritic cells. At 18 months, irradiated mice bore more activated dendritic cells, proliferating CD8 and proliferating CD4 T cells, which are markers of immune system activation.

Conclusion

Irradiation of young mice compounded several effects of aging in mice and increased proliferation of B cells earlier on in development. Dissecting the complex interplay within aging and radiation in terms of the effects on immune system may enable interventions that decrease cancer incidence.

C73 Student Presentation

Investigating the signaling role of β -Hydroxybutyrate in regulating protein synthesis

S. D. Houman,¹ B. Eap,² J. Newman.^{2,3} 1. *College of Osteopathic Medicine, Touro University California, Vallejo, CA*; 2. *Buck Institute for Research on Aging, Novato, CA*; 3. *University of California San Francisco, San Francisco, CA*.

Background: The ketone body, β -Hydroxybutyrate (BHB), is thought to contribute to the extension of lifespan and healthspan as both a source of non-glucose energy as well as via signaling mechanisms that interact with biological aging pathways. For example, BHB covalently modifies proteins, a process known as BHBylation. Our preliminary proteomic data found that cytosolic ribosomes are targets of BHBylation. However, it is unknown whether this post-translational modification affects the activity of ribosomes.

Methods: BHB effect on ribosome activity was assessed in vitro using the HEK-293T cell-line and the Click-iT HPG Alexa Fluor 488 Protein Synthesis Assay Kit. Cells were grown in 96 well plates and upon reaching 70% confluence, 16 wells were given a 24 hour pretreatment with media containing 10mM sodium R-BHB, and 16 wells were given standard DMEM media as control. Cells were then incubated for 30 minutes with fluorescent methionine substitute HPG. Wells with mitochondrial and cytoplasmic ribosomal inhibitors were included as additional controls. The 30 minute HPG incubation was followed by fixation with 4% PFA. Wells were then imaged on a Zeiss Inverted LSM 780 confocal microscope and analyzed via image J for fluorescence intensity.

Results: Fluorescence intensity was not statistically significantly different between cells pretreated with sodium R-BHB and control cells given regular DMEM media. Among the controls, mitochondrial ribosomal inhibitors had minimal impact on fluorescence, while the cytoplasmic ribosomal inhibitors showed a severe reduction in fluorescent signal as expected.

Conclusion: The similar levels of fluorescence intensity between the BHB treatment and media-only control group suggest that there was a similar rate of production of newly synthesized peptide strands regardless of the presence of BHB. The primary limitation was the small sample size of this preliminary experiment. Future experiments may include a cell-free, coupled transcription and translation assay, in which chemical agents directly BHBylate ribosomes in order to measure the effects on translation activity. We also intend to use rapamycin in addition to ribosomal inhibitors as a more physiologic control for inhibition of protein synthesis.

C74 Student Presentation

Characterization of the Molecular Cargo and Function of Serum-Derived Extracellular Vesicles Isolated from Young versus Aged adults

A. Mohammed,¹ R. Ayilam Ramachandran,² N. Saraf,¹ M. Cao,² D. Robertson.² 1. *Medical School, The University of Texas Southwestern Medical Center Medical School, Dallas, TX*; 2. *Department of Ophthalmology, The University of Texas Southwestern Medical Center, Dallas, TX*.

Background: Autologous serum eye drops are widely used as a mainstay of treatment for dry eye, an age-related ocular surface eye disease. Serum contains proteins, growth factors, vitamins, antioxidants, and electrolytes known to have supportive effects on the corneal epithelium and promote wound healing; however, in clinical practice, it has mixed efficacy. Extracellular vesicles (EVs) are heterogenous lipid-bound vesicles secreted by a variety of cell types and are present in serum. Our prior studies have shown that serum-derived EVs retain the wound healing capacity of serum with a reduced pro-inflammatory cytokine load compared to whole serum. More recently, it has been reported that the functional effects of serum-derived EVs may be associated with age. The purpose of this study is to characterize differences

in the molecular composition and wound healing properties of EVs derived from human serum of young versus old adult subjects.

Methods: EVs were isolated from human serum using size exclusion chromatography. Serum samples were obtained from male and female human subjects and divided into two different groups. The first group consisted of adults aged 20-25 years, grouped as the young cohort. The second group consisted of adults aged 65-70 years and were grouped as old. EVs were characterized using nanoparticle tracking analysis, transmission electron microscopy, and western blotting for known EV markers. Characterization of the inflammatory cytokine profile between EV samples was quantified using a microarray, with further characterization defined via proteomics, metabolomics and functional wound healing assays.

Results: Mean particle size of EVs was 100–200nm. Western blotting confirmed the presence of known EV markers. The presence of EVs was further confirmed using TEM. Differences in cytokine, proteomic and metabolomic profiles were seen in EVs derived from aged serum.

Conclusions: Identification of the pro-wound healing components in serum-derived EVs from young versus old subjects has important therapeutic implications for the treatment of age-related inflammatory ocular surface diseases.

C75 Student Presentation

DNA damage in chondrocytes as a potential feature of both aging and joint trauma

O. B. Hansen,^{1,2} J. Shine,¹ N. B. Allen,³ S. B. Adams,³ B. Diekman.^{1,4}
 1. *Thurston Arthritis Research Center, The University of North Carolina at Chapel Hill, Chapel Hill, NC;* 2. *Medical School, The University of North Carolina at Chapel Hill, Chapel Hill, NC;*
 3. *Orthopaedic Surgery, Duke University School of Medicine, Durham, NC;* 4. *Joint Department of Biomedical Engineering, University of North Carolina and North Carolina State University, Raleigh, NC.*

Background. Aging and joint trauma are two of the strongest risk factors for the development of osteoarthritis (OA) and chondrocyte senescence has been implicated in both settings. Prior studies have shown that chondrocytes from the cadaveric joints of aged individuals exhibit levels of DNA damage that are sufficient to induce senescence, but it is unclear whether trauma also causes a similar level of DNA damage. Given that synovial fluid from fractured ankle joints has been shown to cause chondrocyte dysfunction, the goal of this study was to determine whether exposure of normal chondrocytes to synovial fluid drawn from an ankle joint post fracture would lead to DNA damage.

Methods. Synovial fluid-fracture hematoma (SFFH) was obtained from patients 3 to 9 days after intra-articular ankle fracture. Primary human chondrocytes were isolated from macroscopically normal ankles of two cadaveric donors with no clinical history of joint disease. SFFH or a PBS control was added into serum-free media at 10% or 50% of the final volume for treatment of chondrocytes in suspension culture for 4 hours. Acute DNA damage was assessed using the alkaline comet assay, a single cell gel electrophoresis technique in which strand breaks and other forms of damage in DNA cause unwinding and faster migration.

Results. A 4-hour exposure to 50% SFFH resulted in substantial DNA damage in chondrocytes from both donors.

Conclusion. Exposure to SFFH increases the level of DNA damage in primary human chondrocytes. The extent of this damage is similar to levels seen during physiological aging and in response to senescence-inducing stimuli. Further study is needed to replicate this effect and determine whether the SFFH is sufficient to induce senescence. If the accelerated progression to OA after joint trauma proves to be mediated at least in part by DNA damage and senescence, it will be worth investigating whether enhancing DNA damage repair or targeting senescent cells for clearance would be beneficial in slowing or preventing post-traumatic OA.

C76 Student Presentation

GeriKit Workshop: Teaching First-Year Medical Students Core Geriatric Assessment Skills

C. Woo, N. Blachman. *New York University Grossman School of Medicine, New York, NY.*

Background: The aging of the U.S. population has made it imperative that medical students gain early exposure to geriatric medicine and develop competency in performing a comprehensive geriatrics assessment. We developed a workshop for first-year medical students featuring the GeriKit app, a mobile health tool designed in 2020 at NYU Langone Health to help trainees and practicing clinicians conduct geriatric screenings across eight domains (cognition, depression, function, strength, medication, falls, nutrition, and advance care planning). Geriatrics faculty and fellows facilitated the two-hour workshop.

Methods: The workshop consisted of a brief faculty-led introduction to the 5M's framework (Mind, Mobility, Medications, Multi-complexity, Matters Most) and a discussion on the importance of screening for geriatric syndromes. Next, students participated in a group OSCE where they had the opportunity to practice using the GeriKit app to evaluate a standardized older adult patient who reportedly suffered from memory loss. Students were required to download the free GeriKit app, and were each pre-assigned to review how to conduct an assessment of one specific domain. 106 first-year medical students participated in the workshop. Afterwards, participants completed a post-workshop evaluation.

Results: 91% of surveyed participants found that the workshop created a positive learning environment, and all surveyed participants felt that the workshop discussions encouraged learning. Students also wrote that they found the GeriKit app instructive and straightforward to use.

Conclusions: We developed an interactive workshop featuring a group OSCE to introduce early medical trainees to geriatric medicine. The use of the GeriKit app in a pre-clinical workshop provides an innovative and accessible method for teaching first-year medical students fundamental skills in geriatric assessment.

C77 Student Presentation

Medical Education Training during Geriatrics Fellowship: Alumni needs assessment and results of a pilot curriculum

A. H. Petriceks,¹ B. Lubinski,^{1,3} J. D. Whyman,^{1,3} A. Schwartz.^{1,2}
 1. *Harvard Medical School, Boston, MA;* 2. *VA New England Geriatric Research Education and Clinical Center, Bedford, MA;*
 3. *Beth Israel Deaconess Medical Center, Boston, MA.*

Background: Geriatricians are often called upon to educate others about geriatrics principles; yet some may lack training in specific educational skills. Medical education training is not a required part of all geriatric medicine fellowship programs, though it is critical to prepare geriatricians to teach geriatric principles.

Methods: We implemented a longitudinal medical education curriculum for geriatric medicine fellows and other trainees at the Harvard Multicampus Geriatrics Fellowship, between 2015-2022. The curriculum consisted of medical education seminars focusing on key principles of adult learning and medical education, as well as practical teaching and feedback experiences. We conducted anonymous pre-and post-intervention surveys to assess learner confidence in teaching geriatrics. A needs assessment was completed, targeting geriatric medicine fellowship alumni of the program, 2005-2020.

Results: 70 trainees participated in the curriculum, including 48 Geriatric medicine fellows, 6 Palliative medicine fellows, 6 Geriatric psychiatry fellows and 10 Geriatric pharmacy residents. Response rates were 71% for the pre-intervention survey, 57% for the post-intervention survey, and 53% for the alumni survey. Average rating of the curriculum among active trainees was 4.88/5, with 5 being "excellent." Trainees reported higher confidence in teaching geriatrics post-intervention (4.31/5) than pre (2.95/5), p<0.05. Alumni agreed

that teaching medical education skills was extremely important or very important (89%). Respondents reported higher confidence in teaching principles of geriatrics (4.14/5) at the end of fellowship compared to the beginning of fellowship (2.37/5), $p < 0.05$, which did not differ significantly by graduation year.

Discussion: In an academic Geriatrics fellowship program, a medical education curriculum was well-received and associated with greater confidence in teaching geriatrics. Post-intervention trainee surveys as well as alumni surveys demonstrated sustained interest in medical education and opportunities to expand the curriculum offerings. Future studies should examine the most impactful components of the curriculum, and examine the best way to evaluate teaching skills among geriatrics fellows.

C78 Student Presentation Trainee Responses to Asynchronous Online Geriatrics Curriculum

E. Anderson, J. Holloway, B. Reed, N. Green, L. Dahl, G. D. Manocha, D. Jurivich. *Geriatrics, University of North Dakota, Grand Forks, ND.*

Introduction

Healthcare professionals with no or little geriatric training are encountering a significant increase in older adult populations within their clinical practice. Mindful of health care provider's busy schedules, the Dakota GWEP created online microlectures for Gerochampions based on the 26 AAMC Geriatric competencies. The purpose of this research is to assess trainee knowledge and satisfaction following participation using an asynchronous online Geriatric curriculum.

Methods

Gerochampion levels 1-3 have been developed and disseminated to healthcare professionals and trainees with additional levels under development. Each module is split into multiple micro-lectures to enhance retention of geriatric knowledge. Pre- and Post- assessments for geriatric knowledge for each module and end of level feedback surveys are included in curriculum. A minimum of 80% score is required in the post-tests to achieve module completion. Participants receive a Gerochamp Digital Badge accredited by the university.

Results

Gerochampion Levels 1 - 3 include 12, 11 and 11 micro-modules housed on RedCap learning management system that cover 11, 5 and 6 AAMC competencies respectively. In 6 months, Level 1 garnered 319 registrations, 46 of whom received a digital badge. 19 of those enrollees completed level 2 and 10 completed level 3. Each module registered higher post-test scores as compared to pre-tests. 72 % of level 1 completers (33/46) provided feedback with 100% reporting "excellent", "very good" and "good" overall reaction to the course. 84% respondents express commitment to making changes in their practice based on knowledge gained from this curriculum with 97% respondents agreeing that future education on these subject matters is important for their practice.

Conclusion

Busy healthcare professionals who voluntarily seek geriatric training found the microlecture format to be engaging and valuable for improved Geriatrics knowledge. Pre- and post-assessments ensure effective learning, albeit we do not know if this learning format improves retention or changes clinical practice, a limitation of the current study. Additional feedback indicated the desire of trainees to receive continuing education credit. Future work examines the delivery of the microlectures via text messaging.

C79 Student Presentation Artificial Intelligence Recapitulates Ageism Inherently Expressed in Society

L. Martens,¹ N. Virgin,¹ N. Derenne,² P. Hoffarth,¹ R. N. VanEck,³ G. D. Manocha,¹ D. Jurivich.¹ *1. Geriatrics, University of North Dakota, Grand Forks, ND; 2. Art and Design, University of North Dakota, Grand Forks, ND; 3. Education Resources, University of North Dakota, Grand Forks, ND.*

Introduction

Positive self-images of aging are linked to better health outcomes in older adults. Efforts to counter ageist stereotypes in mass media include AARP's "Disrupt Ageing" campaign and the W.H.O. Global Campaign to "Combat Ageism". Given health benefits of positive imagery and efforts to challenge ageist stereotypes, this study examined images generated by artificial intelligence (AI) to determine if AI-generated images reiterate ageist stereotypes expressed in mass media and, if so, whether the dynamic AI platforms "learned" to reduce ageism over time.

Methods

This qualitative and quantitative project compared images generated by Open AI's DALL-E 2 image generator at two points, one year apart. Text prompts, which included terms from the Geriatrics lexicon (e.g., frail older adult, dementia, successful aging), were identical at both points of inquiry. Four faculty and medical students evaluated the images generated at each point through content analysis to account for age, race, gender, and emotional representation. These findings were compared using two-way ANOVA analysis.

Results

A total of 320 images were analyzed by 4 independent investigators. There was an even distribution of images for gender. White race was predominant along with Middle class socio-economic class status in both 2022 and 2023. More images had facial expressions representing negative connotation (angry, frustrated etc.) over positive (happy) or neutral (relaxed) expressions. Demographics did not change from images generated in Nov 2022 vs. October 2023. Additionally, AI did not represent, Geriatric syndromes such as Frailty accurately.

Conclusion

Despite the increased social emphasis on diversity and positive views on aging, AI image generators persistently generated negative imagery and under-represent aging races/ ethnicities. A limitation of this study is that it focuses only on AI imagery and no other AI-generated content that may express ageism or older adult biases.

C80 Student Presentation A student-led, multi-center initiative to improve death notification and communication skills among health professions students using a simulation experience

C. Chan,¹ A. Galbraith,³ E. Méndez Reguera,² J. Pandey.¹ *1. Central Michigan University College of Medicine, Mount Pleasant, MI; 2. Tecnológico de Monterrey, Monterrey, Mexico; 3. Saginaw Valley State University, Saginaw, MI.*

Background: Difficult conversations like death notification are essential competencies required by a physician, yet most medical and healthcare curricula do not include formal instruction or exposure to teach these skills. Proper team-centric handling of such conversations can have a significant impact on the grieving process when handled in a professional, empathic, and culturally sensitive manner. Sensitizing health professions students by early engagement in undergraduate training can better prepare them to have these conversations with patients and families.

Methods: Simulation activities for training in death notification were provided by an interprofessional and intercultural team and implemented across three universities in the United States and Mexico. It was delivered as a 2-hour in-person or virtual session composed of a simulation activity interspersed with group discussions and debrief.

The Toronto Empathy Questionnaire and GRIEV_ING Intervention Confidence Instrument were administered to measure the confidence and empathy of participants prior to and after the simulation.

Results: 104 students participated in the in-person simulations and 82 completed the virtual iterations. Participants represented an interprofessional cohort that included medical, nursing, social work, psychology, and nutrition students. Participants' confidence in death notification skills increased after the simulation activity, with a positive change ($p < 0.05$) for all survey items. Qualitative feedback included positive responses regarding the effectiveness of simulation and having early exposure to a topic usually not covered by the school curricula.

Conclusions: Sensitizing early in training to the process of difficult conversations is perceived positively by health professions students. The use of a simulated experience provides significant learning and competency enhancement. This powerful learning tool can be applied across innumerable disciplines and settings. The collaboration amongst an interprofessional and intercultural team bestows an invaluable perspective on the heterogeneity of death notification. The knowledge and skills gained by participants and facilitators have the potential to positively impact the overall care of future patients.

C81 Student Presentation

Let's Talk 3D: Increasing Community Health Literacy about Delirium, Depression and Dementia in High Schools

C. Cassidy,² N. Klausner,² S. Beeharry,² J. Pandey.¹ *1. Pathology, Central Michigan University College of Medicine, Mount Pleasant, MI; 2. Central Michigan University College of Medicine, Mount Pleasant, MI.*

Background: Delirium, depression, and dementia are similar and easily confused common geriatric conditions. Given that high school students may witness these conditions in their loved ones, education to distinguish between them aims to improve health literacy, reduce caregiver distress, and enhance the well-being of older adults in these communities.

Methods: We conducted presentations on delirium, depression, and dementia at high schools in Mt. Pleasant, Michigan, administering pre- and post-session surveys to assess understanding and demographics. Six months later, participants will undergo follow-up assessments to gauge the long-term retention of the health information. To analyze the data collected we used Pearson's chi-square tests and Likelihood Ratio tests.

Results: Out of 51 students, the median age was 17, 74% (n=37) were female, 78% (n=40) were white, and 53% (n=26) identified as living in a rural area. Pre-survey results showed 33% (n=17) of participants indicated involvement as a caregiver for an older adult. 51% of the participants (n=26) were familiar with the term delirium, while 98% and 96% were familiar with the terms depression (n=50) and dementia (n=49), respectively. As for recognition, 10% said they could recognize delirium, while 80% and 71% could recognize depression (n=41) and dementia (n=36), respectively. 6% felt they knew what to do if someone had delirium (n=3), compared to 57% for depression (n=29) and 41% for dementia (n=21). 41% of the participants (n=21) said they did not know what to do for any of these conditions. In the post-survey, 98% of the participants (n=50) correctly identified the difference between delirium, depression, and dementia in the vignette-style questions.

Conclusions: We accomplished our goal of improving community literacy of delirium, depression, and dementia among high school students in rural Michigan. Students initially had low familiarity with delirium and struggled to identify these conditions. After the presentation, they became familiar with and were able to correctly identify all three. Given many participants live in multigenerational homes and are involved in the care of an older adult, presenting the 3Ds to high school students is an important step in reducing caregiver burden and enhancing well-being of elderly adults.

C82 Student Presentation

Combatting Loneliness with a Senior Companion Program

A. Rizzo, L. Wilson. *School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Dr. Vivek Murthy, the US Surgeon General, recognized loneliness as a public health crisis that was exacerbated by the COVID-19 pandemic¹. Geriatric Scholarly Concentration Programs (SCPs) in medical schools enrich traditional curriculum with opportunities for leadership, research, service, and community. Out of the loneliness epidemic and need for community engagement opportunities, a Senior Companion Program was created for the purpose of cross-generational companionship between medical students and older adults.

Methods: The Senior Companion Program, started in Fall 2022 and managed by an SCP Medical Student Chief, consists of pairing medical students with patients of Geriatricians. Students and faculty Geriatricians were recruited to participate via email. Students were introduced to an older adult patient by the Geriatrician either at a clinic appointment, within the long-term care facility, or continuing care retirement community (CCRC). After the introduction, companions were free to visit, in-person or via telephone, on their own schedule.

Results: For the first round of 14 companion pairs in Spring 2023, there was positive anecdotal feedback, including 2 stories about meaningful connections that were made between students and 90-year-old individuals after recent health struggles. A survey was sent out to the 14 students after participation, yielding 5 responses. Number of visits with their companion per student ranged from 1 visit to 15 visits total, with most students visiting weekly or monthly. Although the feedback was mostly positive, 80% of responders thought that more structure in the program would be beneficial.

Conclusions: Overall, the Senior Companion Program was successful in being a new service opportunity for medical students, providing earlier clinical exposure to Geriatrics, and creating cross-generational companionship. More structure could improve the program, such as students reporting visits, creating a narrative of the older adult's life, or scheduling group activities with companion pairs. With some changes, the program will continue in efforts to combat loneliness pervasive in all ages.

Source:

Office of the Surgeon General (OSG). Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community [Internet]. Washington (DC): US Department of Health and Human Services; 2023-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK595227>

C83 Student Presentation

Integrating Age-Related Physiological Changes into Geriatric Trauma Simulation

M. Cox,^{1,2} A. Baird,² I. Bentov.² *1. Sam Houston State University College of Osteopathic Medicine, Conroe, TX; 2. University of Washington, Seattle, WA.*

Background: Simulation is important in medical education because it provides trainees with a safe environment to practice skills, receive instant feedback, and improve performance. There is a gap in current simulation technology as it does not input age into patient simulation scenarios, despite the difference in physiological response to trauma between older and young adults. The goal of this project is to identify physiologic changes in older adults after injury and develop age specific algorithms to be incorporated into simulation training.

Method: A literature search of PubMed, EBSCOhost, and Web of Science was conducted to identify factors that differed between older (≥ 65 years) and young (< 65 years) adult trauma patients. Data was extracted from articles that included statistically relevant results, stratified by age, and categorized into four groups: hemodynamic, coagulation, arterial blood gases, and other lab values.

Results: Hemodynamic factors identified elevated sympathetic tone, leading to systolic hypertension and decreased maximal heart rate, which interfere with older adults' ability to compensate for shock states during trauma. Only one coagulation factor, Fibrinogen, was significantly different between older and young adults, while INR, PTT, and platelets were not. Older adults started with higher baseline fibrinogen and experienced a bigger drop during trauma. In arterial blood gas measurements, lower oxygen saturation levels reflect decreased diffusing lung capacity and leads to hypoxia at lower levels of physiologic stress. In young adults, base deficit increases reflect severity of injury, while a normal base deficit can be found in older adults with severe trauma, creating a false sense of reassurance. Other lab values that are different in older adults after injury include increased creatinine which reflects impaired renal function and decreased hemoglobin, both are associated with higher mortality rates.

Conclusion: Physiological changes after trauma are different in older adults. Incorporating these age-related changes into medical simulation provides an opportunity to improve geriatric education and potentially improve outcomes of older adults after trauma.

C84 Student Presentation, Encore Presentation

The Virginia Long-Term Care Clinician Network

K. M. MacDonald,² L. Finch,² K. Ivey,² J. Mathews,² C. Bergman,¹ L. B. Waters.² *1. Department of Geriatric Medicine, Department of Internal Medicine, Virginia Commonwealth University School of Medicine, Richmond, VA; 2. Virginia Center on Aging, Virginia Commonwealth University College of Health Professions, Richmond, VA.*

Growing from the need to problem-solve quickly during the COVID-19 pandemic, the Virginia Long-Term Care Clinician Network (LTC-CN) is a peer learning collaborative facilitating information sharing on timely topics affecting LTC clinicians. The LTC-CN brings together clinicians working across Virginia in nursing homes, assisted living facilities, and other congregate care settings. The network provides centralized communication, access to monthly newsletters and Zoom forums with continuing education (CE) credit, and free resources.

The LTC-CN has a project team and a steering committee of MDs/NPs from each Virginia health district. Larger recruitment has included mailing 1,200 postcards to facilities and providers. The LTC-CN assumed a COVID-19 task force newsletter and distribution list for early 2023 with an "opt-in" thereafter. The newsletter features interviews, regulatory updates, education events and research opportunities. Forum topics include appropriate antipsychotic use, enhanced barrier precautions, diabetes updates and more. CE credit has been offered for forum participation beginning in September 2023.

The network had 84 members in February 2023 and has grown to 222 members (December 2023). Membership consists of LTC professionals from every health district in Virginia, including MDs, DOs, NPs, PAs, and others. About half of network members have attended a forum. At the end of forums participants are asked, "How likely are you to attend the next monthly forum?" and 98% of respondents answered positively. Our research plan includes developing a COVID-19 treatment algorithm and evaluating effectiveness of the network. Challenges faced include clinician time constraints, forum engagement strategies and attendance motivation.

Beyond 2024 we have a vision for a real-time learning collaborative connecting health system independent providers in post-acute LTC, serving as a model for states looking to facilitate connection among LTC clinicians.

C85 Student Presentation

Flipping the Anatomy Lab for Geriatrics Knowledge

P. Knutson,¹ E. Holzwarth,¹ P. Carr,³ R. N. VanEck,² G. D. Manocha,¹ D. Jurivich.¹ *1. Geriatrics, University of North Dakota, Grand Forks, ND; 2. Education Resources, University of North Dakota, Grand Forks, ND; 3. Biomedical Sciences, University of North Dakota, Grand Forks, ND.*

Introduction: Gross anatomy rarely covers age-dependent changes, yet most cadaveric dissection entails older adult bodies. Thus, an age-focused curriculum integrated into Anatomy could significantly strengthen Geriatrics knowledge. This educational project pilots the use of microlectures as a "flipped" presentation prior to medical student dissection of different organ systems.

Methods: Geriatric faculty created short slide presentations on aging aspects of each organ system. Video presentations of these slides were created using an AI app, Synthesia Inc. Students accessed the microlectures through RedCap learning management system. Each presentation was coupled with case studies to be discussed during Anatomy lab. Student engagement and feedback was surveyed.

Results. Four microlectures on aging Heart, Lung, Thorax and Abdomen were made available to 78 second year medical students. As a volunteer project, initial engagement was low (20%) and subsequently declined to 5%. During an in-person class, participants rated the embedded curriculum on a 5 point scale, where 1 = Poor and 5 = Exceptional. ~ 33% rated the curricular initiative as a 5 whereas the remainder rated it lower as a score of 2 - 3. Qualitative feedback for the low scores indicated perceived lack of time to complete the 10 minute modules, lack of it being required, and perception that it would not help them prepare for Step 1 exam.

Conclusion: The flipped classroom concept for anatomy is a novel idea to advance Geriatrics knowledge but limited by student perception about the value of electively obtained knowledge. Due to insufficient uptake, this pilot study could not ascertain curriculum efficacy for achieving Geriatrics knowledge in Anatomy. Making the curriculum a requirement may be important to improve uptake. Linking curriculum to medical school and national exam content would also be useful. Whether the addition of older adult case reports enhances flipped curriculum in Geriatrics remains to be seen.

C86 Student Presentation

Caring Companions: A Vessel to Bolster Medical Education in Geriatrics

A. Tyagi, A. H. Dindigal, J. Shinn, H. Truumees, S. Passaro, T. Gartmond, C. Shulman, K. M. Coppola. *Rutgers Robert Wood Johnson Medical School, Piscataway, NJ.*

Background: A growing number of older adults among a shrinking number of geriatricians calls for all physicians to recognize geriatric syndromes. A proper geriatric curriculum is lacking in many US medical schools, with only 45% requiring students to participate in one geriatric clinical activity. Caring Companions, a student group at Rutgers RWJMS aimed to address loneliness in older adults, expanded its role to teach its members about the 5Ms using the American Geriatric Society (AGS) 5M competencies. We sought to understand the baseline knowledge of first-year medical students about the 5M competencies by conducting a survey.

Methods: Using the AGS 5M framework as a guide, we created a 30-question survey about the 5M competencies – mind, mobility, medications, multi-complexity, and [what] matters most. The survey was sent via Google Forms in October 2023 via IRB: Pro2020002175.

Results: 16 of 20 first-year students completed the survey. In "mind," 62.5% noted cognitive concerns and 12.5% capacity. Delirium was not noted. In "mobility," 56.3% noted conducting a functional assessment and 6.3% noted fall risk management. In "multi-complexity," 37.5% noted health equity, 12.5% transition of care, and 6.3% fragility, individualized recommendations, and sensory impairment.

Hazards of hospitalization, atypical presentations, aging physiology, prognosis, pressure injuries, and urinary incontinence were not noted. In “medications,” 50% noted prescribing cascade, 37.5% medication reconciliation, 18.8% geriatric pharmacology, and 12.5% deprescribing. In “matters most,” 50% noted psychosocial and spiritual influences, 18.8% communication and 43.8% patient priorities. Symptom assessment and advance care planning were not noted.

Conclusion: Several 5M competencies were recognized by first-year medical students. Mobility was the most referenced, while multi-complexity was the least referenced, illuminating areas of improvement to meet the AGS 5M competencies. The results suggest Caring Companions is successful at identifying gaps in foundational geriatric medical knowledge.

C87 Student Presentation

Racial and Ethnic Diversity in Aerobic Exercise Interventions for Older Adults with Atherosclerosis Triana Pena and Rebecca Lassell Rory Meyers College of Nursing, New York University Department of Health and Wellness Design, Indiana University, School of Public Health-Bloomington

T. A. Pena, Rory Meyers College of Nursing, New York University, New York, NY.

Background: Older adults identifying as Hispanic/Latino, African American, or Asian-American have a higher prevalence of atherosclerosis. While there is scarce representation of diverse racial and ethnic groups in research, gaps exist in our understanding of their representation within aerobic exercise interventions focused on decreasing risk of atherosclerosis. The purpose of this integrative review is to synthesize the representation of historically underrepresented racial and ethnic groups in aerobic exercise interventions focused on improving cardiovascular health and decreasing risk for atherosclerosis in older adults. Specifically, concepts of inclusion and racial and ethnic diversity in relation to older adults, aerobic exercise, and atherosclerosis were characterized.

Methods: The study examined the impact of aerobic exercise interventions on older adults at risk or with atherosclerosis, utilizing keywords like “racial diversity” and “ethnic diversity.” Across databases (CINAHL, PubMed, PsychNet, ProQuest), a total of 133 records were identified, representing a 100%. After removing duplicates, 106 unique records remained, constituting 79.7% of the original dataset. Following screening, 71 full-text articles were assessed for eligibility, representing 67% of the unique records. Ultimately, 2 studies were included in the integrated review, accounting for 2.8% of the initially identified records. The researchers excluded 61 articles during this phase, reflecting a 57.5% exclusion rate. Descriptive data, including demographic characteristics and study outcomes, were extracted and synthesized.

Results: The study reveals that rural health researchers face challenges due to socioeconomic barriers, compounded by the lack of healthcare infrastructure. This leads to additional costs, hindering recruitment for studies. Only 2.8% of studies met criteria, exposing a gap in research representation for underrepresented populations.

Conclusion: Our study underscores the challenges facing rural health researchers, including socioeconomic barriers, recruitment difficulties, and the lack of accessible healthcare infrastructure. Addressing these challenges is crucial for fostering inclusive and accessible healthcare research efforts

C88 Resident Presentation

THE IMPACT OF ADVANCED CARE PLANNING EDUCATION PRIOR TO LEGAL OFFICE VISITS FOR DOCUMENT COMPLETION DURING RETIREE HEALTH FAIR

H. Spires, C. Garcia-Brinker, R. Salinas. Family Medicine, Carl R Darnall Army Medical Center, Fort Hood, TX.

Background

Studies suggest that patients are more likely to discuss Advanced Care Planning (ACP) with a lawyer than with their primary care physician. This may result in a lack of documentation in the health record system and decisions that lack guidance from the patients’ unique health circumstances, goals, and the dynamic way in which these evolve. This study aims to examine the impact of joining physician-directed ACP education with legal office visits to bridge this gap.

Methods

This is a pre-post interventional study involving participants at the Retiree Health Fair, Carl R. Darnall Army Medical Center in October 2023. Participants included military retirees and their dependents aged 36 years and older. Prior to attending walk-in appointments with the legal office to complete legal documents (including ACP forms), participants were provided with an educational presentation on the three Texas ACP forms: the Medical Power of Attorney (MPOA), Directives to Physicians, and the Out of Hospital (OOH)-DNR forms. Pre-education and post-education questionnaires were given to participants to complete prior to and following the educational presentation. This study utilized descriptive statistics and one-way ANOVA to determine the impact of the educational lectures on the likelihood of form completion as well as improvement in ACP knowledge with a validated questionnaire.

Results

Over 50% of patients were over the age of 65, with 49.7% women and 47.5% men (0.6% other and 2.2% with no answer) completing 177 total questionnaires. 59% of participants were military retirees. Intent to complete the three ACP forms increased following the educational intervention for each form: 5% increase for the OOH-DNR (p value 0.166), 6% increase for the Medical Power of Attorney (p value 0.099), and 13% for the Directives to Physicians (p value 0.012). The results of the validated one-way repeated values ANOVA calculation between the 7 educational assessment questions demonstrated intermittent statistical significance, with an improvement in mean percentage of total correct answers from 76% to 85% (p-value < .00001).

Conclusion

Our results support that, in this limited study population, physician-directed group education associated with legal visits is effective at improving knowledge of ACP as well as the intent to complete an ACP form.

C89 Resident Presentation

Dementia Dialogue: An Educational Workshop for Medical Students

K. Murphy,¹ M. Nguyen,² G. Flindt,² D. Freeland.¹ 1. Internal Medicine, The University of Texas Southwestern Medical Center, Dallas, TX; 2. The University of Texas Southwestern Medical Center Medical School, Dallas, TX.

Background: As the incidence and prevalence of dementia continue to rise, physicians across specialties will provide care for many individuals living with dementia. Physicians need to be equipped to recognize dementia, differentiate dementia from delirium, empathically discuss the challenges associated with dementia, and support their caregivers. Despite this, there is often limited experience to learn and practice these skills in medical school.

Methods: A voluntary workshop was developed for pre-clinical medical students at the University of Texas Southwestern Medical School to increase their knowledge and comfort in caring for patients with dementia. For 90 minutes, students rotated through four

case-based stations which were led by a combination of psychiatry and geriatric medicine faculty and residents. The stations focused on cognitive screening, diagnosing dementia and empathically sharing the diagnosis, supporting caregivers of people living with dementia, distinguishing dementia from delirium, and discussing non-pharmacologic interventions. Pre- and post-workshop surveys were collected from participating students to assess changes in knowledge and comfort via Likert scale.

Results: Forty-two students participated in the workshop; 40 students completed the pre-survey and 30 students completed the post-survey. Following the workshop, student comfort screening patients for dementia increased by 72%, comfort sharing a diagnosis of dementia increased by 60%, comfort working with patients with dementia increased by 33%, and comfort educating caregivers increased by 85%. After the workshop, more students were able to correctly identify screening tools for delirium and dementia. Most students found the workshop helpful. Students provided feedback that sessions should be longer for additional time for skills practice in the stations.

Conclusion: This new interdisciplinary and collaboratively led workshop offered a unique approach for students to learn about dementia through different specialty perspectives. Additionally, students found the workshop helpful for developing their clinical skills. Future directions include implementing this workshop annually as a formal part of the pre-clinical curriculum for medical students.

C90 Resident Presentation

Attitudes Towards Deprescribing from Medical Students to Residents to Attendings

A. Makadia, N. Tjota, A. Suarez-Ramirez, A. Jacquinet, D. Jaremko, C. Meaney, F. Doloresco, G. Prescott, Z. Wikerd. *Internal Medicine, University at Buffalo Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY.*

Polypharmacy, the use of multiple or excessive drugs, predisposes older adults to medication interactions and adverse side effects. An increasing prevalence of polypharmacy in the United States raises concerns for healthcare providers and policymakers. We utilize a quantitative survey to analyze the familiarity of medical students, residents, and attending physicians with deprescribing in inpatient and outpatient settings.

Medical students; preliminary (Pre), internal medicine (IM), family medicine (FM), medicine and pediatric (MedPeds) residents; as well as IM and FM attendings were included. Participants completed a comprehensive survey utilizing Likert scales to assess deprescribing familiarity. Seventy-three individuals participated, including 23 (31.5%) medical students, 44 residents (60.3%), and 6 (8.2%) attendings. Of the residents, 5 (11.4%) are Pre, 29 (65.9%) are IM, 6 (13.6%) are FM, and 4 (9.1%) are MedPeds.

Overall, 35.6% of participants are comfortable with deprescribing, but most (38.4%) are neither comfortable nor uncomfortable. Attendings reported the highest level of comfort with deprescribing (83.3%), followed by residents (43.2%) and medical students (17.4%). Moreover, participants are more likely to deprescribe in the outpatient setting (76.7%) compared to inpatient (57.6%). As a subset, however, Pre and IM residents are more likely to deprescribe inpatient compared to outpatient (100% and 62.1% vs 60% and 51.7% respectively). Participants are least likely to deprescribe DOACs, Warfarin, and 2nd generation inpatient compared to DOACs, Warfarin, and P2Y12 inhibitors outpatient. Participants are more likely to deprescribe NSAIDs, opioids, and benzodiazepines inpatient compared to benzodiazepines, opioids, and muscle relaxants outpatient.

The results of this survey suggest room for enhanced deprescribing familiarity at all levels of medical education. Our results lay the foundation for the targeted development of educational training sessions designed for physicians by a multi-disciplinary team, including pharmacists, to enhance familiarity with deprescribing.

C91 Resident Presentation

Impact of COVID-19 on Virtual Learning Trends in Geriatrics: An Analysis of User Demographics with the VA Geriatric Scholars Program's Virtual Learning Community

Y. Shichijo,¹ E. Dorisca,² H. Fernandez,³ J. Howe,^{3,2} F. Ko.^{3,2}

1. Internal medicine, Mount Sinai Beth Israel Hospital, New York, NY; 2. James J Peters VA Medical Center, New York, NY; 3. Icahn School of Medicine at Mount Sinai, New York, NY.

Background: COVID-19 has disproportionately increased morbidity and mortality in older adults. In order to care for older adults efficiently, healthcare providers needed quick tips and education in geriatrics. The COVID-19 pandemic led to an accelerated shift to online learning. The Virtual Learning Community (VLC) of the VA Geriatric Scholars Program, which provided eLearning contents in geriatrics to clinicians and non-clinicians, continued to offer and expanded its virtual learning opportunities. This analysis aims to characterize demographic shifts among new VLC users and changes in utilization of educational modules of this eLearning platform following the outset of COVID-19.

Method: We analyzed changes in demographics (age, sex, race, profession) and enrollments in 10 educational modules (e.g., Dementia, End-of-Life, Falls) among new users, comparing data three years before (March 2017 - February 2020) vs after (March 2020 - February 2023) the outset of COVID-19 pandemic.

Results: We observed an increase in the number of new users in the three years after the outset of COVID-19 (1587 vs 1642). Demographic shifts in new users from March 2020 - February 2023 included increases in users under 40 years of age (565 (36%) vs 896 (55%), $p < 0.001$), Hispanic users (72 (4%) vs 99 (6%), $p = 0.04$), physicians (MDs, DOs, MBBS: 199 (13%) vs 254 (15%), $p = 0.02$), and non-clinicians (276 (17%) vs 447 (27%), $p < 0.001$), as well as decreases in White users (610 (38%) vs 513 (31%), $p < 0.001$), NPs and PAs (197 (12%) vs 136 (8%), $p < 0.001$), and RNs and LPN/LVNs (466 (29%) vs 391 (24%), $p < 0.001$). The gender ratio was unchanged. Educational module enrollments in March 2020 - February 2023 increased in Medication Management (94 vs 399), Interdisciplinary Teamwork (58 vs 186), End-of-Life care (152 vs 229) and Falls (117 vs 227).

Conclusions: This analysis reveals changes in the demographics of new users who engaged in eLearning in the Geriatric Scholars VLC after COVID-19 pandemic began. The VLC platform provided anytime, anywhere learning, and enabled flexibility in learning and improved access to geriatrics curriculum across institutions and communities.

C92 Resident Presentation

Optimal chronic condition management for patients with dementia: A consensus process to inform trainee curriculum development

T. Y. Hu, M. C. Mecca, T. R. Fried, G. M. Ouellet. *Internal Medicine, Yale School of Medicine, New Haven, CT.*

Background

Over 6 million U.S. older adults have dementia, and most have at least one comorbid chronic condition. Clinical decisions for these patients can be difficult due to uncertain benefits, potential harms and treatment burden, and shifting goals of care. Clinicians in training lack empiric data to guide the management of chronic conditions for this vulnerable population. With the ultimate goal of building curricular content, we first sought to establish expert consensus about optimal practices in managing chronic conditions in older adults with dementia.

Methods

In this ongoing study, we are using a modified Delphi process in which panelists provide iterative feedback. Fourteen panelists representing the disciplines of medicine, nursing, and pharmacy were selected for expertise in deprescribing, dementia, or multimorbidity.

Panelists met virtually to clarify the project goals and have asynchronously completed two rounds of web-based agreement ratings and revisions to proposed recommendations. Iterative feedback from panelists will continue until all panelists select “agree” or “strongly agree” for each recommendation without suggested revisions.

Results

To date, experts reached consensus that clinicians should 1) engage surrogate decision-makers in patients’ care upon dementia diagnosis and elicit patients’ priorities while they are still able to do so, 2) optimize support for safe medication management via behavioral strategies, maximizing social support, and accessing community services, and 3) tailor medication regimens to patients’ health priorities or surrogates’ substituted judgment. Most (13/14 experts) agreed that chronic condition medications should be tailored through a shared decision-making process that incorporates estimated lag time to benefit, dementia-related medication safety risks, and treatment burden.

Conclusion

Interim results outline several important considerations for managing chronic conditions in older adults with dementia. While consensus exists about the importance of eliciting priorities to inform decision-making, reaching agreement about specific strategies to reach shared decisions has been difficult. This highlights the challenges in determining best practices for chronic disease decision-making for persons with dementia, and these challenges will need to be addressed before a curriculum can be designed.

C93 Resident Presentation

Internal Medicine (IM) Residents’ Confidence in Patient Priorities Aligned Prescribing after 4M based Workshop

J. Kim, M. C. Mecca, G. M. Ouellet, M. Tinetti, J. Ouellet. *Internal Medicine, Yale School of Medicine, New Haven, CT.*

Background: The John A. Hartford Foundation and The Institute for Healthcare Improvement created the Age Friendly Health System initiative to disseminate evidence-based principles to care for older adults – the 4 Ms (What Matters, Medications, Mentation, and Mobility). There is a critical need for health professions trainees to receive 4M education. Patient Priorities Care (PPC) is an evidence-based approach to operationalize “What Matters” into actionable decision-making. It has been shown to reduce overall treatment burden, number of medications, and number of new self-management and diagnostic studies ordered. This study shows outcomes after an interactive workshop exploring use of the PPC framework to guide patient priorities aligned prescribing.

Methods: As part of a 4M ambulatory curriculum, a 3-hour workshop was delivered to 130 IM Residents at a tertiary academic center. After a didactic on polypharmacy and the PPC framework of decision-making, residents participated in a faculty-facilitated, case-based discussion focused on decisional strategies for patient priorities aligned prescribing. Residents completed a pre/post survey to report their confidence in skills related to deprescribing and priorities aligned decision-making on a likert scale from 1-5.

Results: Survey response rate was 65.5%. Residents reported increased confidence in skills on the post survey (Table).

Conclusions: An interactive workshop increased confidence in skills related to deprescribing and patient priorities aligned decision-making. Future studies will examine the impact of longitudinal case-based discussions applying the PPC framework to residents’ ambulatory clinic patients.

Pre and post survey confidence in deprescribing, and patient priorities aligned decision-making skills

	Pre Mean (SD)	Post Mean (SD)
Ability to manage patients with multiple chronic conditions	2.7 (0.76)	3.21 (0.69)
Ability to deprescribe potentially inappropriate medications in older adults	2.43 (0.80)	3.25 (0.60)
Ability to coordinate with a pharmacist to assist with deprescribing	2.46 (0.98)	3.32 (0.80)
Ability to identify what matters most to patients	3.16 (0.90)	3.53 (0.74)
Ability to align decision making with what matters most to patients	3.01 (0.90)	3.51 (0.75)

C94 Student Presentation

Impact of Climatic Changes on the Surge in Emergency Room Visits and Hospitalizations among Older Adults (60+) in California’s San Joaquin Valley

M. Dhillon, R. Grewal, M. Rahman, S. Richards. *California Health Sciences University, Clovis, CA.*

The susceptibility of older adults to heat-related incidents is a significant concern in California’s (CA) San Joaquin Valley (SJV). This region, characterized by distinctive geographical and climatic conditions, faces recurrent and intensified heat waves exacerbated by climate change. Such environmental challenges pose an elevated risk to older adults, given their heightened vulnerability due to physiological conditions. This study investigated the correlation between rising temperatures in the SJV and the escalating emergency room (ER) visits and hospitalizations of older adults due to heat-related ailments.

We utilized the National Center for Environmental Information database from the National Oceanic and Atmospheric Administration (NOAA) to track average temperatures across all eight counties in SJV. Additional representative counties included Los Angeles, Alameda, and San Diego. The study measured temperatures in these counties from May to September, spanning from 2006 to 2021. Hospitalization and ER visits were obtained from the Department of Healthcare Access and Information. A cross-sectional analysis compared average temperatures across SJV counties and other populous CA counties, assessing correlations with heat-related ER visits and hospitalizations. Pearson’s correlation and t-test analyses were conducted using SPSS software.

The findings revealed a positive correlation ($r = .701$, $\text{Sig.} = .002$) between rising temperatures and increased ER visits and hospitalizations among older adults in the SJV compared to other CA counties. Additionally, the average heat-related admissions in the SJV were significantly higher than in the rest of CA (12.56 vs. 7.79 per million population, $p < 0.001$). The number of ER visits for heat-related hospital admissions was also higher in the SJV compared to other CA counties (36.12 vs. 21.15 per million population, $p < 0.001$).

Rising temperatures in the SJV and a shortage of healthcare professionals pose a challenge in treating heat-related incidents. Urgent attention is warranted to reallocate resources in the SJV through adequate funding and supportive policy measures. The region is unequipped to handle the impending surge in heat-related incidences unless measures are taken to reverse the impacts of climate change. The vulnerability observed in the area underscores the critical need for proactive intervention.

C95 Student Presentation

Investigating Systematic Measurement Differences in Delirium Severity Between Hyperactive and Hypoactive Patients.

S. E. Corvinelli,^{1,2} S. McLeod,^{1,3} S. Choi,^{4,5} A. Kiss,⁶ J. S. Lee.^{1,2}

1. Schwartz Reisman Emergency Medicine Institute, Toronto, ON, Canada; 2. Institute of Medical Science, University of Toronto, Toronto, ON, Canada; 3. Department of Family and Community Medicine, University of Toronto, Toronto, ON, Canada; 4. Department of Anesthesia, Sunnybrook Health Sciences Centre, Toronto, ON, Canada; 5. Department of Anesthesia, University of Toronto, Toronto, ON, Canada; 6. Department of Epidemiology and Biostatistics, Sunnybrook Research Institute, Toronto, ON, Canada.

Background: Delirium affects 10% of older adults in the emergency department (ED). Research on the differences between hyperactive and hypoactive delirium in terms of clinical recognition, treatment and outcomes is limited. This study aimed to assess whether systematic measurement differences between motor subtypes of delirium *within* and *between* severity scales exist, as well as rater confidence, interrater agreement and rater accuracy by ED staff.

Methods: A prospective observational study of emergency staff from two tertiary care hospital EDs. We designed four case vignettes

of older ED patients with *hyperactive* delirium and four with *hypoactive* delirium. Each motor subtype had two mild and two severe cases. Participants rated the severity of the case vignettes using two scales: the Confusion Assessment Method-Severity Scale (CAM-S) and Delirium Index (DI).

Results: The survey was completed by 32 nurses, 11 physicians and 1 physician assistant (n = 44). Interrater agreement for CAM-S and DI ratings were good to excellent (ICC = 0.89-0.96) and agreed with gold standard rater (mean difference = 3.7%) across all case vignettes. However, only 60% of participants were confident in diagnosing and subtyping delirium, and only 25% in rating delirium severity. Both scales rated *hypoactive* delirium as more severe than similar *hyperactive* cases (0.70 vs 0.67, Δ 0.03, 95% CI: 0.002, 0.061). The DI measured delirium severity as less severe compared to identical cases rated using the CAM-S (0.65 vs 0.71; Δ -0.06, 95% CI: -0.094, -0.035).

Conclusions: Despite good interrater agreement, participant's confidence in delirium diagnosis, subtyping and rating severity was low. We found that *hypoactive* was systematically measured as more severe than equivalent *hyperactive* cases of delirium using CAM-S and DI. This measurement difference may impact interpretation of previous literature on delirium motor subtype severity and related outcome differences.

C96 Student Presentation

Primary Spoken Language and Hospital Readmissions Following Hip Fracture Surgery

M. Restrepo Mejia,^{2,1} C. Laurore,¹ A. Yendluri,¹ R. Busigo Torres,¹ B. Stern,¹ J. Poeran.² 1. *Icahn School of Medicine at Mount Sinai, New York, NY;* 2. *Medical Student Training in Aging Research, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Limited English proficiency may be a predictor of disparities in surgical outcomes among elderly hip fracture patients. This study investigates the relationship between primary spoken language (PSL) and hospital readmissions in post-operative hip fracture patients aged 65+. **Methods:** Data from a Northeast U.S. health system was used to analyze inpatient cases of patients 65+ who had non-elective hip fracture surgery from Jan 2016 to Mar 2023. The main effect of interest was primary spoken language (English, Spanish, Other). Outcomes of interest were 30-day and 90-day hospital readmissions. Associations between PSL and outcomes were assessed using mixed-effects models with a binary distribution and logit link; we report adjusted odds ratios (OR) with 95% confidence intervals (CI). We also applied an interaction term between age groups (65-74, 75-84, 85+) and PSL categories to assess subgroup-specific associations. **Results:** The cohort included 3,321 eligible patients (85.3% English, 7.8% Spanish, 6.9% Other), of whom 12.6% and 20.5% were readmitted within 30 days and 90 days, respectively. In comparison to English-speaking patients, there was no statistically significant difference in 30-day and 90-day readmissions for Spanish-speaking and Other-speaking patients. When the cohort was stratified by age group, there was no significant association between language and readmissions within subgroups except for a significant association between Spanish (versus English) language and decreased 30-day readmissions in patients aged 75-84 (OR 0.35; 95% CI 0.125-0.999; P=0.0498). **Conclusion:** Non-English primary language was not associated with increased readmissions following hip fracture surgery. Future studies should investigate if readmission risks vary by hospital region, given differences in healthcare resources and language services.

C97 Student Presentation

The Association Between Heart Failure, Hypotensive Medications, and 30-Day Hospital Return Rates in Patients 75 and Older

A. Pavlovsky, G. Engstrom, B. Reyes-Fernandez, J. Ouslander. *Florida Atlantic University Charles E Schmidt College of Medicine, Boca Raton, FL.*

Background: Older people with heart failure (HF) are at high risk of adverse effects from treatment with multiple hypotensive drugs. Guidelines identify 4 classes of these drugs, and many older people are prescribed multiple classes simultaneously, which may increase the risk of harm. We investigated whether the number of hypotensive meds was associated with 30-day hospital return rates in a cohort of hospitalized patients aged 75 and older, and if there was an association of return rates with reduced vs preserved ejection fraction (HFrEF, HFpEF).

Methods: This is a secondary analysis of a quality improvement database of hospital admissions 75 and older to a 400-bed community teaching hospital from 2017-2020. All admissions classified as either HFrEF or HFpEF upon discharge (N=4,476) were included. Categorical variables were analyzed using chi-square and continuous variables were analyzed using T-tests.

Results: There were 62,222 admissions among whom 9,677 had a discharge diagnosis of HF. Among discharges with a diagnosis of HF, 13% had HFrEF, 33% had HFpEF, and 55% had no specific diagnosis. There was a significantly greater percentage of HFrEF patients taking ≥ 4 drugs than HFpEF admissions (35% vs. 23%; p<.001). 30-day return rates were similar among HFrEF and HFpEF patients taking ≥ 4 drugs (29% vs. 28%; p=.760); the same applied to those taking ≤ 3 meds (25% vs 27%; p=.469). Within each group, patients on ≥ 4 meds were as likely to return as those on ≤ 3 meds (HFrEF; 29% vs. 25%; p=.197) (HFpEF; 28% vs. 27%; p=.508). Overall, HFrEF patients were as likely to return to the hospital within 30 days as patients with HFpEF (26.4% vs. 26.9%; p=.785), despite having higher BUN and creatinine levels, and prevalence of volume depletion, CAD, and valvular heart disease.

Conclusion: Contrary to our hypotheses, number of hypotensive drugs and specific type of HF were not associated with 30-day returns to the hospital among those age 75 and older admitted to our community teaching hospital. This study was limited by lack of a specific HF diagnosis in over half the discharges, by potential unmeasured confounders between those with and without a specific HF diagnosis, and by lack of diversity in the patient population. More detailed data on severity of HF should be included in future studies examining hospital returns in more diverse populations.

C98 Student Presentation

Refractive and astigmatic changes following blepharoplasty in older adults

B. Mendez,¹ R. Li,² C. Hwang,² D. Rubinstein.² 1. *University of Illinois Chicago, Peoria, IL;* 2. *The University of North Carolina at Chapel Hill, Chapel Hill, NC.*

Background: Involuntional changes in the tone and position of eyelids can have a pronounced impact on patients' vision and daily function. Eyelid surgery is a common ophthalmic procedure utilized to correct eyelid malposition. Eyelid position can also impact refractive status. Uncorrected refractive error contributes to reversible vision loss and can increase the risk for fall and other traumatic events. This study is being conducted to elucidate the magnitude and duration of refractive and astigmatic changes induced in elderly patients undergoing correction of involuntional eyelid malposition.

Methods: This is an observational and prospective study gathering refractive data on patients undergoing eyelid surgery at an academic center in the southeastern U.S. Measurements were taken at baseline and 1-week, 6-weeks, and 12-weeks post-operation. Data

were obtained by autorefractometry and anterior corneal topography measurements. These included corneal asphericity (Q), categorical spherical refraction (myopic, hyperopic, and emmetropic), and categorical astigmatism (with-the-rule and against-the-rule). 18 patients totaling 32 eyes to date were analyzed.

Results: Most patients were women (61%) and over the age of 65 (78%). Corneal asphericity of eyes showed a steepened curvature (i.e., more prolate) at each timepoint, with a significant difference from baseline to week 6 ($p=0.044$) and week 12 ($p=0.048$). Categorical shifts of spherical refraction (i.e., hyperopic to myopic) increased over time from week 1 (2/18 eyes), to week 6 (3/16 eyes), and week 12 (4/10 eyes). Three of four eyes at week 12 had a dioptric shift greater than 1.75. At each timepoint from baseline, myopic eyes shifted towards emmetropia, hyperopic eyes shifted towards emmetropia, and emmetropic eyes shifted towards myopia. Myopic eyes from baseline to week 6 shifted significantly towards emmetropia ($p=0.037$). One patient showed an astigmatic shift at week 6 (1/10 eyes).

Conclusion: Some patients demonstrated significant refractive changes following eyelid surgery that would warrant a change in contact lens or glasses prescription. Current guidelines for discussing the risks and benefits of eyelid surgery do not make note of refractive changes. For older adults with comorbid risk of falls, the potential of refractive errors following eyelid surgery may warrant further education for patients and providers alike.

C99 Student Presentation

Health Outcomes and Cardiovascular Risk Reduction in Older Adults in the CHANGE Study: Implications for Lifestyle Programs in Aging Populations

A. Tenney,¹ C. Samuel-Hodge,² S. Lee,³ A. Ammerman.²

1. University of Vermont Larner College of Medicine, Burlington, VT; 2. The University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC; 3. The University of North Carolina at Chapel Hill, Chapel Hill, NC.

Background: Cardiovascular diseases (CVD) are the leading cause of morbidity and mortality among older adults in the US. Poor diet and limited physical activity contribute to CVD development, and as the aging population grows, the societal burden of CVD is increasing. Behavioral lifestyle programs, such as the Med-South Lifestyle Program in the Carolina Heart Alliance Networking for Greater Equity (CHANGE) study, offer a promising approach to improve health in older adults.

Methods: Community Health Workers (CHWs) delivered a 4-month cardiovascular risk reduction intervention to an underserved rural population in North Carolina. This intervention included dietary guidance using a Mediterranean-style eating pattern tailored to Southeastern U.S dietary preferences (Med-South). We compared program outcomes between older (age 60 and over) and younger (under age 60) participants, focusing on Atherosclerotic Cardiovascular Disease (ASCVD) risk scores. We examined changes in lifestyle behaviors (diet and physical activity), health indicators (blood pressure), and intervention engagement (goal setting).

Results: Both cohorts displayed improvements in physical activity, systolic blood pressure and dietary habits. However, only the younger age cohort had a significant reduction in diastolic blood pressure. Despite these findings, no significant reduction in ASCVD risk score was found in either group after controlling for health behaviors and health status indicators. Finally, we found that older adults were more likely to complete the intervention and engage in goal setting.

Conclusion: Our findings that older adults had high rates of completion and engagement in the study, suggest this demographic may be targeted successfully in similar interventions. Additionally, older adults showed improvements in health indicators and lifestyle behaviors comparable to younger participants. However, no significant reduction in ASCVD scores was observed, possibly due to the

intervention's short duration. Future research should consider longer interventions with extended follow-up and a more diverse age range for deeper insights into any sustained impacts on cardiovascular health in older adults.

C100 Student Presentation

Physicians Perspectives Regarding Over-screening in Breast, Colorectal, and Prostate Cancer

M. R. Quinley,¹ C. Boyd,² C. Pollack,² N. Schoenborn.² 1. Medicine, University of Hawai'i at Manoa, Honolulu, HI; 2. Johns Hopkins Medicine, Baltimore, MD.

Background:

Routine screening for breast, colorectal, and prostate cancers allow for early detection and reduction in cancer related mortality. These screenings, however, are associated with potential harms such as false positives and overdiagnosis. National studies have shown that rates of over-screening are high among older adults. We aimed to examine physician beliefs and attitudes about over-screening in older adults to inform future interventions.

Methods:

We surveyed 1800 primary care physicians (PCPs) and 600 gynecologists from the AMA Masterfile. PCPs were randomized to questions on breast/colorectal/prostate cancer screenings. Gynecologists were surveyed about breast cancer screening. Our primary outcome was whether physicians believed over-screening for (breast/colorectal/prostate) cancer was "a significant problem in older adults" (yes/no). We also examined attitudes on how patient preference should be incorporated into screening decisions along with malpractice concerns. Analysis examined association between the primary outcome with each of the above attitudes, cancer screening type, and physician specialty, demographic, and practice characteristics.

Results:

Out of the 821 eligible responses (response rate 52.4%), only 39% believed that over-screening was a significant problem in older adults. Responses varied by physician specialty and by cancer screening type. 41% ($n=260$ of 630) of PCPs believed over-screening was a significant problem, while only 31% ($n=69$ of 190) gynecologists did so. Overall, 54% ($n=112$ of 205) thought prostate cancer over-screening was a significant problem, while only 36% ($n=149$ of 391) thought so regarding breast cancer and 29% ($n=66$ of 225) regarding colorectal cancer. Attitudes that prioritized patient choice were associated with lower likelihood of believing over-screening to be a significant problem. Physician gender, race, geographic location, hours spent in clinic, and malpractice concerns were not associated with belief about over-screening.

Conclusions:

Most physicians in a national survey did not believe cancer over-screening was a significant problem in older adults. Better understanding the rationales underlying this belief and raising awareness of the scope and the harms of over-screening are critical next steps.

C101 Student Presentation

Value of a multidisciplinary geriatric oncology committee on patient care in a community-based, academic cancer center

G. Singh,^{1,2} L. Morant,² J. Emel,² M. Bedra,² K. Harris,² Y. Markan,² C. deBorja,² M. Tong,² P. Downs,² C. Boutros.^{1,2} 1. University of Maryland School of Medicine, Baltimore, MD; 2. UM Baltimore Washington Medical Center, Glen Burnie, MD.

Background: The geriatric population in the United States is growing at an unprecedented rate and the heterogeneity in health and functional ability among the group makes the management of cancer a unique and nuanced challenge. The Geriatric Oncology Program at the University of Maryland Baltimore Washington Medical Center (BWMC) was created to optimize cancer care and management recommendations for geriatric patients using a multidisciplinary team

of specialists and individualized stratification system. This study aimed to assess the benefits of the implementation of such a program at a community- based academic cancer center. **Methods:** A retrospective analysis of 233 patients presenting to the Geriatric Oncology Program between 2017 and 2022 was conducted. The patients were stratified into three groups- those deemed fit to receive standard oncologic care (SOC) (32.6%), those receiving optimization services prior to reassessment for SOC (18.5%), and those who were provided supportive services/ hospice management (49.0%). **Results:** The average Canadian Study of Health and Aging-Clinical Frailty Scale (CSHA-CFS) score for patients deemed best fit to receive supportive/ hospice care was 5.8, while the averages for those in the optimization and SOC groups were 4.6 and 4.1, respectively ($p < .001$). Patients that received SOC had the longest average survival of 2.71 years compared to the optimization (2.30 years) and supportive care groups (0.93 years) ($p < 0.001$). For all patients that underwent surgical interventions, post- operatively, 23 patients (85%) were discharged home and 4 (15%) were discharged to a rehab facility. The average survival after surgery for all patients was 3.16 years, while patients who were optimized prior to surgery had an average survival after surgery of 3.21 years. **Discussion:** The present study demonstrates the need for specialized consideration of the complexities that cancer diagnoses present in older individuals, as well as the benefit of implementing a geriatric-centric program to do so. The Geriatric Oncology Program at BWMC is able to maximize treatment outcomes for geriatric patients through SOC therapies and optimization services, while also improving quality of life at an individual patient-centric level.

C102 Student Presentation

Association between frailty and readmissions in hospitalized patients with systemic lupus erythematosus (SLE)

C. Leung,¹ W. Tahir,² Y. Rosli,² S. Lieber,³ U. Makris,⁴ H. Ali,² R. Goulabchand,² S. Singh,⁵ N. Singh.² 1. Georgetown University School of Medicine, Washington, DC; 2. University of Washington, Seattle, WA; 3. Weill Cornell Medicine, New York, NY; 4. The University of Texas Southwestern Medical Center, Dallas, TX; 5. University of California San Diego, La Jolla, CA.

SLE has one of the highest hospital readmission rates among chronic conditions. Frailty is common and associated with hospitalization in SLE, but whether frailty is associated with worse outcomes after hospital admission, including readmissions, is unknown. Our objective is to evaluate the association between frailty status and risk of readmissions, inpatient mortality at readmissions, and cost of admission among patients with SLE using the National Readmissions Database (NRD).

Using ICD-10 codes, we identified adults within NRD who had a primary or secondary diagnosis of SLE and were hospitalized between 1/2018-6/2018. Using the claims-based Hospital Frailty Risk Score, we categorized individuals as frail or non-frail at the index hospitalization. Age, sex, insurance type, household income, Elixhauser Comorbidity Index (ECI), and LOS were extracted.

39,738 patients with SLE were identified during the study period. Over a median follow-up of 9 months, frail patients with SLE (n = 18,385, 46.3%) were older with Medicare coverage and had higher ECI scores and longer LOS compared to non-frail patients with SLE (n = 21,353, 53.7%). Frail patients with SLE had a higher proportion of prolonged hospitalizations, defined by LOS > 7 days, with higher costs per hospitalization. Readmission rates in frail patients with SLE were significantly higher. At index hospitalization, frail patients had significantly higher inpatient mortality. Frailty was independently associated with a 10% higher risk of readmission after adjustment for covariates.

Among hospitalized adults with SLE, presence of frailty was associated with higher readmission and inpatient mortality rates and greater economic burden of hospitalization.

Outcomes	Non-frail patients	Frail patients	P-Value
Readmission	43.10%	59.80%	<0.01
Inpatient mortality	0.27%	2.88%	<0.01
Length of Stay > 7 days	9.11%	28.89%	<0.01
Average days to readmission	87.7	77.1	<0.01
Cost of hospitalization			
Median	\$7,991.00	\$11,087.00	<0.01
Interquartile Range	\$4,755 - \$14,010	\$6,359 - \$20,978	

Table 2: Outcomes in Frail vs Non-frail Patients with SLE

C103 Student Presentation

Lower depression scores and better global mental health are associated with higher psychological resilience in older women following hip fracture

T. McClennen,¹ H. Sharma,¹ C. Guild,² R. Fortinsky,³ E. Binder,⁴ D. P. Kiel,⁵ S. Berry.⁵ 1. UMass SOM, Worcester, MA; 2. Inst for Informatics, Data Sci and Biostats, WashU SOM, St. Louis, MO; 3. UConn Center on Aging, UConn SOM, Farmington, CT; 4. Div of Gen Med and Geri, WashU SOM, St. Louis, MO; 5. HebSen Life, Marcus Inst. for Aging Research, BIDMC, Boston, MA.

Among older adults with hip fracture repair, high psychological resilience is associated with improved functional outcomes. A better understanding of resilience would provide insight into potential interventions to improve recovery. The objective of this study was to identify factors associated with higher psychological resilience in older women after hip fracture.

Women aged ≥65 yrs with a recent surgically-repaired proximal femur fracture, who enrolled in a clinical trial of exercise and testosterone after hip fracture, were included in cross-sectional analysis using baseline data. Psychological resilience was self-reported 6-24 weeks after fracture repair using the Brief Resilience Scale (BRS), scored 1-5 (our mean=3.8). We categorized resilience as low (BRS<4) and high (BRS≥4). Potential correlates of resilience included 17 demographic, neuropsychiatric, and co-morbid conditions. The Geriatric Depression Score (GDS) is scored 1-15, with higher scores suggesting depression. The Patient-Reported Outcomes Measurement Information System Global Mental Health Score (PROMIS-GMH) generates T-scores, with higher scores indicating better mental health. Chi-squared and t-tests compared the two resilience groups, and significantly different characteristics ($p < 0.10$) were entered into logistic regression models adjusting for age and level of education.

129 women were included (mean age 79.5 yrs, 93% European ancestry). 57 (44%) reported high resilience. Decreased GDS and increased PROMIS-GMH were significantly associated with high resilience. The association remained in adjusted models for both GDS (AOR for 1-point increase=0.76, 95% CI 0.61,0.93) and PROMIS-GMH (AOR for 1-point increase=1.35, 95% CI 1.14,1.59). In the final models, neither age nor education level was significantly associated with resilience ($p > 0.10$).

Lower depression and better global mental health were significantly associated with higher psychological resilience in older women after hip fracture. Interventions designed to improve resilience and recovery after hip fracture should address mental health concerns and symptoms of depression.

C104 Student Presentation

Factors Associated with Mild Cognitive Impairment and Dementia in Veterans with Rheumatoid Arthritis

R. Dawood,² R. Bass,³ H. Brubeck,¹ K. Riggles,¹ S. Sattui,⁴ E. Myasoedova,⁵ U. Makris,⁶ D. Shoback,⁷ J. M. Garcia,¹ A. R. Orkaby,⁸ J. F. Baker,⁹ P. P. Katz,¹⁰ K. Wysham.¹ 1. VA Puget Sound Health Care System Seattle Division, Seattle, WA; 2. Pacific Northwest University of Health Sciences College of Osteopathic Medicine, Yakima, WA; 3. Research and Development, VA Puget Sound Health Care System Seattle Division, Seattle, WA; 4. University of Pittsburgh, Pittsburgh, PA; 5. Mayo Foundation for Medical Education and Research, Rochester, MN; 6. VA North Texas Health Care System, Dallas, TX; 7. San Francisco VA Health Care System, San Francisco, CA; 8. VA Boston Healthcare System Jamaica Plain Campus, Boston, MA; 9. University of Pennsylvania, Philadelphia, PA; 10. University of California San Francisco, San Francisco, CA.

Objective: Rheumatoid arthritis (RA) is associated with high rates cognitive impairment (CI) compared to the general population¹. We explored associations between CI and clinical factors in a cohort of Veterans with RA.

Methods: All participants enrolled in the Veterans Affairs (VA) Frailty RA Osteoporosis cohort were included. Cognitive status was evaluated using the VA St. Louis University Mental Status (SLUMS) exam. Scores were adjusted for education level and categorized into either normal or mild CI/dementia (MCI/D). Low performance in each cognitive domain was defined as <50%. RA disease characteristics and functional assessments were measured. Univariable linear regressions explored associations between characteristics and SLUMS score. Those with p<0.1 were evaluated in separate multivariable linear regressions adjusted for age, sex, and education level.

Results: 86 participants were included, mean age 64±11 years, 73% were male and 66% had MCI/D. Those with MCI/D were older, 66 vs. 61 years, more frequently male 79% vs. 62% and had longer RA disease duration 16 vs. 11 years. Registration was the cognitive domain most frequently affected in those with MCI/D (35% vs. 3%). In our multivariable models disability, pain, depression, difficulty falling asleep and RA disease activity were independently negatively associated with SLUMS score (p<0.05).

Conclusion: MCI/D was prevalent in nearly two-thirds of Veterans with RA, despite mean age <65 years. MCI/D was associated with factors that have significant clinical overlap (pain, depression, functionality). More work is needed to understand preventive approaches for MCI/D in RA.

¹Meade T et al, *Arthritis Care Res* 2018

C105 Student Presentation

Who gets a geriatric consult in acute cardiac care units?

A. More,¹ D. Salako,² M. Kapadia,¹ S. Fu,¹ N. Rianon,¹ D. Giza,¹ N. Amjad,¹ R. J. Flores,¹ M. Kwak.¹ 1. The University of Texas Health Science Center at Houston, Houston, TX; 2. University of Houston, Houston, TX.

Introduction: Older adults with cardiovascular diseases in acute cardiac units have a high prevalence of geriatric syndromes, which may cause adverse clinical outcomes. They might benefit from proactive geriatric consultation services and co-management, especially in fast-paced acute cardiac care units. However, little is known about which patient characteristics are associated with receiving geriatric consultation services.

Methods: Our institution started geriatric consultation services focusing on acute cardiac care units at the Memorial Hermann Hospital in September 2019. We conducted a retrospective, cross-sectional study of older adults (≥65 years) admitted to the Cardiac Intensive Care Unit and Cardiac Intermediate Care Unit from January – June 2020. The chi-square test and Student's T-test were used to compare

differences in key characteristics between patients who received a geriatric consult and those who didn't.

Results: Among the total of 493 patients, 6.7% (N=33) received a geriatric consult. Those who received geriatric consults were older, (mean age of 87 ± 7 compared to those who did not, 77 ± 8 (p<0.001)). They were more likely to have cancer (33% vs. 17%, p=0.03), physical impairment (91% vs. 60%, p<0.001), dementia (21% vs. 5%, p=0.002), delirium (26% vs. 15%, p=0.006), and discharged to a facility (21% vs. 10%, p=0.006) compared to those who did not receive consult. There were no differences in race, gender, admission diagnosis, polypharmacy, length of stay, or potentially inappropriate medication prescription rate between the two groups.

Conclusion: In acute cardiac care units, the use of geriatric consults is still underutilized, considering the high prevalence of geriatric syndromes. Our study shows that dementia, delirium, and physical impairment are frequent geriatric syndromes that are associated with geriatric consults in acute cardiac units. Increasing awareness of the benefits of involving geriatricians in patient management may improve collaboration through continuous consultation.

C106 Student Presentation

Comparative Analysis of Geriatric Surgical Outcomes Between Anterior and Posterior Cervical Fusion: A 20-Year Study Using the National Inpatient Sample Database

B. Ezzat, T. Hardigan, A. Schupper, T. Choudhri. Department of Neurosurgery, Icahn School of Medicine at Mount Sinai, New York, NY.

Background: Cervical Spondylotic Myelopathy (CSM) is the worldwide leading cause of spinal cord dysfunction in patients above 65 years old. While Anterior Cervical Discectomy and Fusion (ACDF) and Posterior Cervical Decompression and Fusion (PCDF) are standard treatments, there is a paucity of age-stratified comparisons of their outcomes and complications. This study aims to identify the risk factors, clinical outcomes, and complication rates associated with ACDF/PCDF in the geriatric population.

Methods: Data from 2000-2020 on geriatric patients undergoing ACDF or PCDF for degenerative conditions was extracted from the National Inpatient Sample (NIS) and analyzed using R. Chi-square tests and t-tests assessed categorical and continuous variables, with p-values < 0.05 and SMD > 0.1 denoting statistical significance and meaningful effect size, respectively.

Results: The cohort consisted of 587,838 patients—457,396 underwent ACDF, and 130,442 underwent PCDF. The mean age was 58.21 ± 11.88 years, with PCDF patients being older (62.33 ± 11.73 [p<0.001; SMD=0.355]) compared to ACDF (57.04 ± 11.50). Females represented 47% of the cohort but were more prevalent in ACDF (49% [p<0.001; SMD=0.164]) than PCDF (41%). Medicare was the primary insurer (38%), more common in PCDF (50% [p<0.001; SMD=0.334]) than ACDF (34%). The South had the highest representation (45%), especially in ACDF (47% vs 38% PCDF [p<0.001; SMD=0.151]). Urban teaching hospitals treated the majority (64%, with 78% in PCDF [p<0.001; SMD=0.139]). Myelopathy was the most frequent diagnosis, more so in PCDF than ACDF (86% vs 77%; p<0.001; SMD=0.247). Hypertension was the prevalent comorbidity, higher in PCDF than ACDF (62% vs 49%; p<0.001; SMD=0.273). The Elixhauser Comorbidity Score was significantly greater in PCDF (2.16) than ACDF (0.83 [p<0.001; SMD=0.283]). The average length of stay was longer for PCDF (4.86 ± 4.83 vs 2.34 ± 3.36 days; p<0.001; SMD=0.636]) with higher hospital charges than ACDF (\$107K vs \$72K; p<0.001; SMD=0.636).

Conclusion: PCDF patients, characterized by advanced age and multiple comorbidities, experienced extended hospital stays and diverse insurance coverage, influencing treatment outcomes and costs. Tailored surgical approaches and geriatric-centric health policies are essential for enhancing care in elderly CSM patients.

C107 Student Presentation The Prevalence of Depression and Most Common Antidepressants in Centenarians

T. Fiste¹. Florida Atlantic University Charles E Schmidt College of Medicine, Boca Raton, FL.

Background: Advanced age is a risk factor for depression. One study of centenarians found that close to 20% met criteria for clinical depression. Co-morbid conditions associated with depression predispose to hospitalizations in older patients, but this has not been well-studied in centenarians. Our objectives were to determine the prevalence of depression among hospitalized centenarians, identify the most prescribed antidepressants in these patients, and examine rates of common morbidities between the depressed and non-depressed groups.

Methods: This is a secondary analysis of a quality improvement database that included patients ≥ 100 years old admitted to a community teaching hospital from 2017 to 2020. Admissions of patients who were discharged to hospice or expired in the hospital were excluded. Depression was defined by ICD-10 code diagnosis and/or antidepressant prescription documented on admission or discharge. Prescriptions for monoamine oxidase inhibitors were excluded. Chi square tests were conducted to compare characteristics and comorbidities of patients with and without depression.

Results: Among 513 eligible admissions, 18% met criteria for depression. Of the centenarians with depression ($n=90$), only 22 (24%) were documented as having depression via ICD-10 code, the remainder were based on prescription of an antidepressant. Centenarians with depression were significantly more likely to be female, have an anxiety disorder, and diabetes. The most common antidepressants prescribed were SSRIs (11% of centenarian admissions), followed by SNRIs (8%), Mirtazapine (4%), and Wellbutrin (1%).

Conclusions: The prevalence of depression in our cohort was similar to that in previous studies. SSRIs were used most commonly in this population, despite the potential for several adverse effects. Our study is limited by using prescription of an antidepressant medication as part of our definition of depression, since some patients may have been prescribed these drugs for other indications. In addition, our hospital has a racially and socioeconomically homogenous population, including mostly White people and only a very small number on Medicaid. Further research should examine the prevalence of depression and the safety and effectiveness of SSRIs vs other antidepressants among larger and more diverse cohorts of centenarians.

C108 Student Presentation Assessing potential benefit for routine visual impairment screenings in adults: Perspectives from a large primary care health center

K. Nasto,² J. Hirth,³ I. Kuncharapu.¹ 1. Family and Community Medicine, Baylor College of Medicine Department of Family and Community Medicine, Houston, TX; 2. Baylor College of Medicine, Houston, TX; 3. Family and Community Medicine - Research Programs, Baylor College of Medicine Department of Family and Community Medicine, Houston, TX.

Background: Visual impairment impacts over 20 million Americans. Primary causes of vision loss are age-related macular degeneration (AMD), cataracts, diabetic retinopathy, and glaucoma. The US Preventative Service Task Force notes insufficient evidence to assess the benefits and harms of visual acuity screenings in asymptomatic adults. American Academy of Ophthalmology recommends examinations every 1-2 years in adults over 65 years. Our purpose was to analyze screening retinal scans from adults with diabetes, who receive routine yearly screenings, to assess incidence of these conditions to better understand the magnitude of these problems and need for screening interventions.

Methods: Electronic health records from the Harris Health Strawberry clinic with screening retinal scan data results from 40+ year old diabetic patients were examined between 01/31/2022 and 02/01/2023. We examined associations of sex, age group (40-65 vs 65+ years old), and race/ethnicity with outcomes of suspected cataracts, glaucoma, or AMD using Chi-square tests.

Results: A total of 1927 retinal scan results were included. Over half were from female (63%), and Hispanic (87%) patients. Eight percent (160/1927) of retinal scans were flagged for abnormal findings. Of all scans, 3.8% (73/1927) included suspected cataracts, glaucoma, or AMD. Patients over 65 years had 7.4% (27/363) of scans flagged for suspected cataracts, glaucoma, or AMD. Suspected cataract and AMD were associated with age ($p<0.001$, $p=0.04$, respectively). Suspected glaucoma diagnosis did not vary by age, sex, or race/ethnicity.

Conclusions: Retinal scans can identify suspected eye conditions other than diabetic retinopathy. Adults over 65 years are disproportionately affected by ophthalmologic disorders and may benefit from regular screening eye exams. In the future, we aim to expand the research to include multiple Harris Health clinics.

C109 Student Presentation Longitudinal changes in frailty status in older adults undergoing hematopoietic cell transplantation.

M. Kerns, T. Wildes, D. Murman, A. Fisher, V. Bhatt, E. Lyden, T. Koll. University of Nebraska Medical Center, Omaha, NE.

Background: Increasing numbers of older adults (≥ 60 years) are undergoing hematopoietic stem cell transplant (HCT). HCT recipients are at an increased risk for frailty. The consequences of frailty include disability, hospitalizations, and death (1). The objective of this study is to examine the prevalence of frailty in adults ≥ 60 years undergoing HCT at a midwestern tertiary cancer center.

Methods: Frailty was defined as possessing three or more of the following: unintentional weight loss, low grip strength, self-reported exhaustion, slow gait speed, and low physical activity (1). Baseline assessments were conducted prior to admission for HCT. Post-HCT assessments were conducted at 100 days, 6 and 12 months. A multinomial model with a random effect for subject was used to compare frailty status over time.

Results: 106 older adults were included in the study. The average age at transplant was 67.6 (range: 60.2-76.6; SD= 4.71). The prevalence of frailty was 10.6% at Baseline, 9.9% at Day 100, 7.1% at 6 months, and 25.8% at 12 months. There was a statistically significant change in the distribution of frailty between baseline and 12 months (odds ratio= 4.917, $p=0.0005$).

Conclusions: At one year, the prevalence of frailty in HCT survivors approaches that of community dwelling older adults ≥ 80 years (2). The increased prevalence reflects the stress of cancer, accumulation of high-intensity therapeutic exposures, and transplant related morbidities. Interventions targeted to reduce and prevent the consequences of frailty and maximize quality of life for older adults following HCT are needed.

References:

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Table 1. Distribution of frailty status over time

	Baseline	Day 100	6 months	12 months
Frail	10.6%	9.9%	7.1%	25.8%
Prefrail	63.5%	75.3%	82.1%	67.7%
Not Frail	26.0%	14.8%	10.7%	6.5%

C110 Student Presentation, Encore Presentation
Facial Nerve Recovery Patterns in Elderly and Frail Patients with Bell’s Palsy

S. Ratna, J. Rosenberg, M. Gray. *Otolaryngology, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background

Bell’s palsy exhibits varying recovery outcomes, ranging from complete resolution to permanent facial weakness. With an incidence of 0.20 cases/1000 people-years and a lifetime risk of 1 in 60, the impact of Bell’s palsy is substantial. Frailty is a crucial factor in predicting recovery across health conditions. This study investigates the correlation between age, frailty, and the extent of facial nerve recovery in Bell’s palsy patients.

Methods

We conducted a retrospective analysis of electronic medical records of 202 Bell’s palsy patients from 2014-2022 at Mount Sinai Hospital. The House-Brackmann (HB) score, indicating facial motion from Grade 1 (normal) to Grade 6 (no motion), served as the primary outcome variable. Excluding 81 patients with no follow-up visits and 20 with initial HB scores of 1, we utilized the modified frailty index-5 (mFI-5) at the time of Bell’s palsy diagnosis as the predictor variable. A higher mFI-5 score reflected increased frailty and comorbidities. We categorized patients into the elderly group (age > 65 at presentation) and the frail group (mFI-5 > 1). Clinically relevant facial nerve recovery, defined as an HB score decrease > 2 between the initial presentation and the most recent follow-up (with an initial HB score > 3), was assessed. SPSS was used for analysis with chi-square, Fisher exact tests, and logistic regression models to assess the association of elderly and frailty with facial nerve recovery.

Results

101 patients with Bell’s palsy (median age 56.2 years, IQR = 24.1, HB score > 3) comprised the analytical cohort. Among them, eight were classified as frail, and 30 as elderly. Within the follow-up period, 36% of patients experienced an improvement in HB scores by ≥ 2 . Frailty demonstrated a significant association with facial nerve recovery (unadjusted OR = 6.3, 95% CI = [1.2, 33.1], $p = .023$), while age did not (unadjusted OR = 1.07, 95% CI = [.44, 2.59], $p = .889$). The logistic regression showed the mFI-5 adjusted Odds Ratio = 8.43 (95% CI = [1.38, 51.4], $p = .021$) adjusting for an elderly predictor of improvement.

Conclusions

Frailty, not age, was linked to increased facial nerve recovery in Bell’s palsy patients, potentially due to increased surveillance of frail patients due to their comorbidities. Future research on the relationship between facial nerve recovery and frailty, rather than age, could aid geriatric physicians in identifying at-risk Bell’s palsy patients.

C111 Student Presentation
The Role of Diet in Dementia Prevention: Preliminary Results

A. D. Santiago,² E. A. Johnston.¹ *1. Medicine, New York University Grossman School of Medicine, New York, NY; 2. Medicine, Universidad de Puerto Rico Recinto de Ciencias Medicas, San Juan, Puerto Rico.*

Background: By 2050, it is estimated that over 150 million people around the world will have Alzheimer’s disease and related dementias (AD/ADRD) and there are no proven, widely available disease modifying treatments. A hybrid dietary pattern, the Mediterranean-DASH diet intervention for neurodegenerative delay (MIND) diet, combines protective food components from two evidence-based dietary patterns that are associated with reduced AD risk and younger cognitive age.

Brightly colored fruits and vegetables high in anti-inflammatory compounds, including carotenoids, are a hallmark of the MIND diet. Carotenoids are bioactive pigments that can be measured through the skin using a non-invasive spectroscopy-based device to provide an objective measure of dietary intake.

Methods: We are recruiting 150 participants of the NYU Alzheimer’s Disease Research Center (ADRC) cohort with normal cognition or mild cognitive impairment. Participants will complete a 15-item screener for adherence to the MIND Diet and reflection spectroscopy, a subjective and objective diet assessment method as part of their annual ADRC visit. We are measuring correlations between MIND diet score, reflection spectroscopy and cognitive performance. Participants are given a score report and a 1-page information sheet with resources to learn more about healthy eating for a healthy brain. This study was approved by the NYU Grossman School of Medicine IRB.

Results: Thus far, eight participants have completed the study. Mean age is 71 years, 75% female, mean reflection spectroscopy score: 239 (out of 800) and mean MIND diet score is 6.4 (out of 15).

Conclusion: Preliminary results reflect poor adherence to the MIND diet and low levels of intake of carotenoid-rich foods. Small changes in dietary intake could reduce risk and improve outcomes in AD/ADRD across the lifespan. Adding a diet assessment to an ongoing study enriches the cohort with important data and should allow for furthering of understanding of diet-disease relationships.

C112 Student Presentation
Identification of Symptom Burden in Chronic Kidney Disease through Integrated Ambulatory Kidney Palliative Care

N. Abi Rached, D. Murdock, M. Lavallee, J. S. Scherer. *New York University Grossman School of Medicine, New York, NY.*

Background:

People with chronic kidney disease (CKD) often experience an overwhelming symptom burden, including fatigue, pruritis, insomnia, and psychological and spiritual distress. The Kidney Disease: Improving Global Outcomes (KDIGO) conference cited the need to prioritize symptom management in CKD. We present a retrospective observational study of symptom burden in people with CKD who received care in NYU’s Kidney Palliative Care Clinic. We describe symptom burden at different stages of CKD, including those receiving dialysis or having chosen conservative kidney management (CKM).

Methods:

We conducted a retrospective chart review of 198 unique patients seen by Kidney CARES between May 2016 through June 2023. We abstracted data from each palliative care visit, including age, race/ethnicity, sex, language spoken, number of visits, Karmofsky, functional status, glomerular filtration rate, hemoglobin, Albumin, Charleston Comorbidity Index (CCI), comorbidities, treatment choice for CKD, including CKM, Dialysis, Deciding, and Planning for Dialysis, and etiology of kidney disease. Symptom burden was measured using the IPOS-Renal (Integrated Palliative Outcome Scale) survey—administered at most visits.

Results:

Of the 198 patients, 128 (65%) completed an IPOS-R on their first visit [32 CKM (25%), 55 dialysis (43%), 31 deciding (24%), 10 planning for dialysis (8%)]. People who chose CKM were older (mean \pm standard deviation) (87 \pm 8) than the other treatment groups [dialysis (63 \pm 14), deciding (79 \pm 6), planning for dialysis (68 \pm 12)]. The CKM group had a higher CCI compared to dialysis patients (10 \pm 2 vs. 6 \pm 2). CKM patients also had the lowest Karnofsky scores (48 \pm 18 vs. 60 \pm 21), indicating that they need more assistance in completing activities of daily living. When comparing dialysis and CKM patients, dialysis patients experienced more pain (73% vs. 41%), nausea (58% vs. 44%), vomiting (33% vs. 13%), and itch (65% vs. 47%). CKM patients experienced worse weakness (97% vs. 91%), appetite changes (69% vs. 58%), constipation (50% vs. 40%), and drowsiness (75% vs. 65%).

Conclusions:

This study identifies that older and functionally impaired individuals may choose CKM over dialysis and have a different clinical experience. Further research will address how symptom burden changes with more palliative care visits.

C113 Student Presentation
Characterizing Patients at University of Southern California’s Geropharmacy Clinic, Services Received, and Strategies to Improve Patient Care

S. Chen, T. Gurvich, N. Mashayekan, B. Olsen. *University of Southern California Keck School of Medicine, Los Angeles, CA.*

Background: Medication (med) is a pillar of age-friendly care that is important to manage in geriatric patients because of their high risk for polypharmacy and prescribing cascades, which lead to poor outcomes and adverse events such as drug interactions. High-risk medications are also one of the reversible risks for cognitive impairment and increase fall-risk in this vulnerable population. At the USC Geropharmacy Clinic, geriatric clinical pharmacists complete a comprehensive review of patient med lists. There are few studies evaluating the impact of geropharmacy clinics that incorporate a comprehensive review.

Methods: We conducted a retrospective review of patient electronic health records in Redcap from 10/12/22-8/9/23. All patients age 60+ seen in this time range were included (n=24). This study evaluates the impact of the geropharmacy clinic’s interventions by extracting patient characteristics and services received. Based on the results, we formulate strategies to improve patient care.

Results: The average patient age was a mean of 79.5 years (SD 8.5). The most common reason for referral to clinic was polypharmacy (75% of visits). The average number of meds patients initially took was 16 (SD 8.3) and the average initial % of meds that were high-risk was 18.4% (SD 12.1). Number of medication-associated side effects patients initially experienced was an average of 3 (SD 2.2). The mean % of meds initially identified by clinic for changes was 47.1% (SD 17.7). The most common recommended changes were discontinuing a med and dose reduction at 20 and 22 times respectively. 11 disease categories were addressed, the most common being cardiovascular at 20 times.

Conclusion: From our analysis of clinic services provided, the USC geropharmacy clinic is unique in that rather than focusing on one drug class or disease, it provides full med reviews and addresses multiple diseases. The patient population was also determined to be experiencing polypharmacy, medication-associated side effects, and/or were taking high-risk meds, further indicating the necessity of comprehensive geropharmacy services. Strategies for improving care in the geropharmacy field include thorough pharmacotherapy evaluations, close follow-up, and expanding the geropharmacy team to a group of interdisciplinary providers for holistic age-friendly care.

C114 Student Presentation
Recovery after Hematopoietic Cell Transplantation in Older Adults

N. Pick, N. von Oldenburg, R. High, T. Wildes, T. Koll. *University of Nebraska Medical Center, Omaha, NE.*

BACKGROUND: Hematopoietic cell transplantation (HCT) is a potentially curative treatment for many hematologic malignancies. Efforts to understand recovery post-HCT are needed to help patients and family with care planning. We aim to describe the pattern of activity engagement in adults ≥ 60 years post-HCT at a midwestern tertiary cancer center.

METHODS: Patients completed the modified Activity Card Sort checklist (1) (ACSm), which assessed 80 activities in four domains (instrumental, low-and high-demand leisure, and social). Prior to HCT, patients compared participation to levels prior to diagnosis. Post-HCT

patients compared participation at each time point to levels pre-HCT. Linear mixed modeling was used to determine activity levels changes.

RESULTS: 36 autologous or allogeneic HCT recipients completed the ACSm. Patients performed >80% of their pre-diagnosis activities in all domains except for high demand leisure (i.e., hiking, exercise) and social activities. **Table 1** shows the percent of activities retained and differences Pre- and Post-HCT. Activity engagements were lowest at Day 100 with gradual improvements. At 12 months, patients returned to their pre-HCT participation levels except for high demand activities.

CONCLUSION: Our findings suggest that HCT survivors ≥ 60 years returned to pre-HCT levels of participation in instrumental, low-demand leisure and social activities at 12 months. However, the levels remained lower than participation prior to cancer diagnosis. Understanding the pattern of activity resumption following HCT can help the care team counsel patients and family on expectations for recovery. Interventions to preserve and improve resilience factors, such as participation in leisure and social activities, are needed to improve quality of life post-HCT.

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Table 1. Percent of Activities Retained and Differences between Pre- and Post-HCT

Activity Domain	Pre-HCT	Day 100	6 months	12 months
Total	81.8%	66.1% (15.7)*	69.1% (12.7)*	78.8% (3)
Instrumental	87.2%	83.5% (3.7)	76.6% (10.6)	85.8% (1.4)
Low-demand Leisure	89.9%	78.4% (11.5)*	80.8% (9.1)	89.4% (0.5)
High-demand Leisure	66.6%	48.3% (18.3)*	45.3% (21.4)*	57.5% (9.1)
Social	76.3%	56.4% (19.9)*	63.8% (12.5)*	77.3% (0.9)

*Indicates significant differences in activity levels from pre-HCT p-value <0.05

C115 Student Presentation
Associations between cognitive ability and changes in quality of life among older adults with metastatic cancer undergoing palliative radiation therapy

A. Osei,¹ M. Jain,² E. Moshier,² L. Jonsson,¹ K. Dharmarajan.¹
 1. *Department of Radiation Oncology, Icahn School of Medicine at Mount Sinai, New York, NY;* 2. *Department of Population Health Science and Policy, Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Older adults may be more susceptible to poor outcomes from radiation therapy, yet the relationship between geriatric conditions such as cognitive impairment (CI) and outcomes such as quality of life (QOL) are not well understood. The objective of this study is to estimate associations between pre-radiation therapy cognitive ability and one-month post-radiation QOL changes in older adults with metastatic disease.

Methods: This study is situated within a large prospective cohort study comprising patients 65 and older with metastatic cancer undergoing palliative radiation treatment at an urban, academic institution in the Northeast U.S. Cognitive ability was assessed through the Blessed-Orientation-Memory-Concentration Test (BOMC), a screening tool for signs of CI. We assessed patient-reported QOL through the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC-QLQ-30) at baseline before radiation and one month post-radiation. Data was collected in RedCap. Linear mixed effects modeling was used to assess the differences in EORTC-QLQ-30 subscale change scores between pre- and post-radiation therapy assessments in patients grouped by cognitive status (unimpaired and impaired). Patient characteristics were compared using Fisher’s exact test for categorical distributions and the Wilcoxon rank-sum test for continuous distributions.

Results: 32 patients were enrolled, with 26 in the unimpaired group and 6 in the impaired group. Role functioning, someone's ability to perform tasks within their social role, worsened significantly more over time for those with CI compared to those without impairment ($p=0.0491$), and nausea/vomiting worsened significantly for those with CI ($p=0.0392$).

Conclusions: Our data demonstrates that role functioning and burden of nausea/vomiting worsen significantly within a month after radiation for individuals with CI. Analysis with a larger study population and adjusted multivariate analysis is necessary to further elucidate the relationship between cognitive ability and QOL in older adults undergoing radiation therapy to guide clinicians on best care practices for radiation patients with CI.

C116 Student Presentation

Interest in Digital Cardiac Rehabilitation is Similar Between Geriatric and Non-Geriatric Adults

A. Cherian,¹ X. Zhang,² H. Patel,⁴ V. Avula,³ P. Huynh,⁴ A. Sharma,⁴ R. Shan,⁴ F. Marvel,⁴ S. Khoury,⁴ S. Martin,⁴ L. Mathews,⁴ E. Spaulding.² 1. *The University of Arizona College of Medicine Tucson, Tucson, AZ*; 2. *Johns Hopkins University School of Nursing, Baltimore, MD*; 3. *Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD*; 4. *Johns Hopkins Medicine, Baltimore, MD*.

Background

Cardiac rehabilitation (CR) aims to improve morbidity, mortality, and quality of life by helping patients improve their cardiovascular health. However, most patients regardless of age find traditional CR challenging to access because it requires them to come back to the hospital several times a week for 12 weeks. Therefore, the purpose of this cross-sectional study was to assess the interest of geriatric and non-geriatric adults in using digital health to facilitate CR at home.

Methods

We utilized a Qualtrics survey composed of multiple choice, free-response, and check-all-that-apply questions to compare digital health use in CR between geriatric (≥ 65 years) and non-geriatric (< 65 years) adults. The survey was given to all consenting, English-speaking adults (≥ 18 years) admitted to the progressive cardiac critical care unit at Johns Hopkins Hospital who qualified for CR based on undergoing prior cardiac intervention or procedure.

Results

105 patients were surveyed, 56 of which were geriatric (mean age: 72.5 ± 6.5 , 38% female, 66% Caucasian) and 49 were non-geriatric (mean age: 52.9 ± 9.8 , 33% female, 51% African American). Over 83% of patients from both groups believed they could benefit from traditional CR; however, traveling to the rehab center was a major barrier for about half of the patients in both groups ($\chi^2 = 4.99$, $p = 0.42$). 66% of the geriatric and 73% of the non-geriatric adults had moderate to high levels of digital healthcare use ($\chi^2 = 4.24$, $p = 0.12$). Lastly, over 77% of patients from both groups were interested in participating in a digital cardiac rehab program ($\chi^2 = 0.016$, $p = 0.9$).

Conclusions

Many geriatric and non-geriatric adults believe that traditional CR can be a benefit to them but also that it has some barriers to access. Digital CR programs may be a viable alternative to traditional CR for geriatric adults, as patients in this study had similar levels of digital healthcare usage and interest in home-based CR programs as non-geriatric adults.

C117 Student Presentation

Understanding challenges in researching multiple long-term conditions

O. A. Owusu,⁷ R. Allen,³ M. Samuel,⁴ S. Hanley,⁵ E. Zormpa,⁶ S. Bellass,² J. Masoli.¹ 1. *University of Exeter, Exeter, United Kingdom*; 2. *Manchester Metropolitan University, Manchester, United Kingdom*; 3. *University of Leicester, Leicester, United Kingdom*; 4. *Queen Mary University of London, London, United Kingdom*; 5. *University of Birmingham, Birmingham, United Kingdom*; 6. *The Alan Turing Institute, London, United Kingdom*; 7. *Clinical and Biomedical Sciences, University of Exeter, Exeter, United Kingdom*.

Background:

The increasing prevalence of individuals living with multiple long-term conditions (MLTC) presents a significant challenge for healthcare systems globally. Healthcare conditions accumulate as people age, with MLTC affecting over half of people aged over 65. Understanding the barriers to MLTC research and potential facilitators could aid more rapid progress in preventing and treating MLTC.

Methods

Communities of Practice can provide a forum to share best practice, discuss challenges and solutions, and enable knowledge exchange.

A clinical Community of Practice in MLTC was developed in the UK in 2022 aiming to provide an inclusive, multidisciplinary platform for research interaction build research capacity support clinical context, dissemination and translation

To understand the challenges and potential facilitators in MLTC research we embedded workshops in clinical facing conference symposia and worked with patient and public collaborators.

Results

There were key themes that emerged from the workshop content. These can be broadly defined as:

- Complexity
- Defining MLTC
- Funding
- Recruitment
- Defining outcomes in MLTC
- Research community
- Research resources
- Education

Barriers to research included funding traditionally targeted at single-disease domains and the complexity of studying MLTC over single conditions, including issues of confounding and establishing causality. There are limitations of existing definitions (generally accepted as 2 or more co-existing clinical conditions), particularly with the growing prevalence of MLTC.

The potential facilitators for MLTC research include high level prioritisation, collaborative research environments, fostering cross-disciplinary idea exchange and open shared data resources in MLTC. More comprehensive MLTC education is required for clinicians and researchers, from mechanistic research to translation.

Conclusion

There is a critical need for a paradigm shift in approaching MLTC research. To overcome barriers, MLTC requires funding and development of research and education. Knowledge exchange, including open sharing of research protocols and coding can be leveraged to accelerate research progress as we saw applied to COVID-19.

C118 Student Presentation

Aging and Psoriatic Arthritis: Disease Activity and Patient Reported Outcomes

N. Chachad,^{1,3} J. Perin,² A. Orbai,³ 1. *Nova Southeastern University Dr Kiran C Patel College of Allopathic Medicine, Fort Lauderdale, FL*; 2. *Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD*; 3. *Johns Hopkins Medicine, Baltimore, MD*.

Background:

Geriatric patients with psoriatic arthritis (PsA) often have increased comorbidities and cumulative damage than their younger counterparts. Our objective is to quantify age-related differences in PsA outcomes and understand specific considerations for successful disease management.

Methods:

Our analysis consisted of a cross-sectional examination using data from the Johns Hopkins Psoriatic Disease registry, which includes patients who receive guideline-based rheumatologic care based on CASPAR eligibility in addition to their clinical diagnosis of PsA. We defined age quartiles based on participant age at enrollment, and patients without recorded date of birth were excluded from analysis. We compared age-related differences in disease presentation and patient-reported outcomes at registration date using ANOVA and Fisher's exact tests.

Results:

Each age quartile contained approximately 120 patients, with our total population consisting of 481 patients. The age quartiles were as follows: under 41.80, 41.80 to 52.77, 52.77 to 61.99, and above 61.99. Our analysis revealed that older patients experienced reduced frequency of obesity, inflammatory bowel disease, and enthesitis compared to younger patients. In contrast, older patients had longer disease duration and higher incidence of comorbidities like hyperlipidemia, coronary artery disease, diabetes, and cancer. They also experienced worse PROMIS physical functioning, and increased tender and swollen joint counts.

Conclusions:

Geriatric patients have unique considerations that must be accounted for in terms of their care, particularly for chronic inflammatory conditions such as PsA. An understanding of age-related differences in cardiometabolic comorbidities, disease phenotype and joint involvement, and patient-reported outcomes will promote individualized patient care and therefore better health outcomes for this population.

C119 Student Presentation

The Association Between Depression and 30-Day Returns to the Hospital in Centenarians

K. C. Lotharius. *College of Medicine, Florida Atlantic University, Boca Raton, FL*.

Background:

1 of 5 hospitalized Medicare beneficiaries are readmitted within 30 days of discharge, costing \$15 billion annually. Depression is associated with higher 30-day readmission rates, but this has not been well-studied in centenarians. The objectives of this study were to determine the rate of 30-day hospital returns in centenarians with and without depression, and identify the primary diagnoses for these returns.

Methods:

This secondary analysis of a quality improvement database is comprised of patients ≥ 100 years old admitted to a community teaching hospital from 2017-2020. Patients who expired in the hospital or were discharged to hospice were excluded. Depression was identified using ICD-10 codes or antidepressant prescription on admission or discharge medication reconciliation. Returns included ED visits and admissions within 30 days of discharge. Primary diagnoses for hospital returns were determined by ICD-10 discharge codes. Chi-square tests compared patients with and without depression.

Results: Among 513 eligible admissions, 91 (18%) met the criteria for depression. 30-day return rates were similar between patients who did and did not meet the criteria for depression; 19% (17) vs. 18% (78), respectively. Among 30-day returns, there were 11 (65%) admissions in depressed older adults and 42 (54%) admissions in the non-depressed group. Centenarians with depression were similar to their non-depressed counterparts in their demographics and comorbidities, however depressed centenarians were more likely to have altered mental status (P=.031) or an anxiety disorder (P<.001). Among 30-day returns (n = 95), older adults who met depression criteria were more likely to have a cardiovascular primary diagnosis.

Conclusions: One in five admissions of centenarians in this cohort met our criteria for depression, but they were not at a higher risk of returning to the hospital within 30-days of discharge than those who did not meet our depression criteria. The relationship between depression and hospital returns and other adverse outcomes among centenarians should be studied further in larger and more diverse cohorts.

C120 Resident Presentation, Encore Presentation

The Health Care Professional's Perspective on Caring for Older Adults in Rheumatology

A. P. Smith, P. Achanta, U. Makris. *Internal Medicine, The University of Texas Southwestern Medical Center, Dallas, TX*.

Background

Ageism (age-based stereotypes, prejudice or discrimination) is prevalent and linked to reduced lifespan, prolonged disability, and accelerated cognitive decline in older adults. Little is known about ageism within rheumatology. This study aims to explore the health care professional's perspective on caring for older adults with rheumatic disease.

Methods

An English language REDcap survey, distributed over social media and email, included demographic, Likert scaled, multiple-response and free response questions related to the clinical care of older adults and the validated Expectations Regarding Aging (ERA-12) scale where higher scores indicate reduced stereotypical beliefs regarding aging. Spearman's rank correlation coefficients were calculated for the ERA-12 scores and the responses to the other Likert questions to assess the effects of ageism on self-reported rheumatologic care decisions.

Results

Over 11 months, 254 surveys were collected. Respondents were predominantly female (63%), white (70%), physicians (75%), practicing in academia (66%) and with a median age between 45-64. The median ERA-12 score was 36/48 indicating that respondents on average disagreed with the stereotypes regarding aging but did not strongly disagree. Higher ERA-12 scores (less ageist beliefs) were associated with greater enjoyment of the care of older adults (p=0.0004) and awareness of the Geriatrics 5Ms (p=0.0003). Lower ERA-12 scores were associated with believing that older adults are more demanding of attention (p=0.0001) and more risk averse than younger adults (p=0.0190). Lower ERA-12 scores were also associated with emphasizing the risks of aggressive medical intervention to older adults (p=0.0063) and shifting from disease modifying therapy to symptom relief in older adults (p=0.0005).

Conclusion

Stereotypical beliefs regarding aging are associated with self-reported changes to patient counseling, medical decision making, and perception of patient goals. This suggests that our biases regarding aging may affect how we care for older adults. Knowledge of the Geriatrics 5Ms was correlated with increased ERA-12 scores suggesting that increased awareness of aging principles may reduce these stereotypes and improve care for older adults.

C121 Resident Presentation
Using Perioperative Geriatric Assessment to Guide Surgical Counseling

P. Raje,¹ R. Tang,¹ M. L. Russell,² S. Pulluru,² H. Kunitake,¹ M. Higuchi.² *1. Surgery, Massachusetts General Hospital, Boston, MA; 2. Medicine Geriatrics Palliative Care, Massachusetts General Hospital, Boston, MA.*

Background: The Perioperative Optimization of Senior Health (POSH) clinic was established to guide perioperative decision-making and align care with older adults' specific health goals and preferences. This study characterizes preoperative factors and outcomes of colorectal surgery patients who did not undergo surgery after POSH consultation.

Methods: Colorectal surgery patients enrolled in the POSH clinic (October 2021 – September 2023) were retrospectively identified. Univariate analysis was used to compare characteristics and outcomes of patients who did and did not undergo surgery.

Results: 36 patients scheduled for colorectal surgery were enrolled in the POSH clinic. After interdisciplinary team (IDT) evaluation, seven patients did not proceed to surgery. Compared to patients who underwent surgery, these patients were older (mean age 84 vs 80 years, $p=0.200$), more frail (Comprehensive Geriatric Assessment Frailty Index score 0.32 vs 0.25, $p=0.093$), less able to identify social support (66.7% vs 88.5%, $p=0.228$), and more likely DNR (42.9% vs 10.7%, $p=0.073$).

Of these seven patients, three received recommendations against surgery after IDT discussions about comorbidity and patient goals of care. The POSH clinic provided recommendations to optimize medical management and resources for transitioning care after consultation. Two patients died within six months from complications of medical comorbidities unrelated to their indication for surgery.

The remaining four patients were medically cleared for surgery. These patients received several recommended interventions for preoperative optimization and were offered anticipatory guidance about expected postoperative courses but ultimately decided not to pursue surgery. One patient died within 1 year from unrelated reasons. There were no mortalities to date in the surgical cohort of patients.

Conclusions: Seven out of 36 colorectal surgery patients did not undergo surgery following POSH evaluation either because of recommendation against surgery or personal decision. The POSH program may enhance preoperative decision-making and counseling. Future qualitative studies will explore the decision-making process to explain these findings.

C122 Resident Presentation
Lifestyle Medicine gaps and interest among older adult women
 C. Y. Qian,¹ J. C. Lo,² N. P. Gordon.² *1. Kaiser Permanente Oakland Medical Center, Oakland, CA; 2. Division of Research, Kaiser Permanente Northern California, Oakland, CA.*

Background: Lifestyle medicine (LM) is gaining popularity as clinicians and patients adopt a more holistic approach to preventing and treating chronic health conditions. The six pillars of LM are healthy eating (i.e. plant-based diet), regular physical activity, avoidance of risky substances, restorative sleep, stress management and emotional well-being, and positive social connections. This study describes the prevalence of health habits corresponding to the six LM pillars and potential openness to making LM-recommended changes among a community-dwelling population of older women in Northern California.

Methods: This cross-sectional study used data for 1412 Kaiser Permanente Northern California (KPNC) women health plan members ages 65-79y collected in a 2022 self-administered questionnaire survey. The survey covered lifestyle habits and interest in learning about LM topics. All descriptive statistics are based on respondent data that were weighted to the age-sex-racial/ethnic composition of the KPNC membership.

Results: The analytic sample was 67% White, 8.3% Black, 9.3% Latina, 6.4% Filipina, 3.8% Chinese, 1.4% South Asian, and 3.9% Other Asian/PI, with mean age of 71.4. Only 11% ate a mostly vegan, vegetarian, or whole food/plant-based (WFPB) diet, 23% got exercise <3 days/week, 49% had sleep issues, 3% smoked tobacco and 23% drank alcoholic beverages ≥ 3 times/week, 19% had fair/poor emotional health, and 40% had inadequate social connectedness (often felt lonely, got insufficient social/emotional support, or saw/talked to people she cared about < once/week). Nearly 40% of women indicated they would likely eat more WFPB foods if recommended by their doctor. Interest in LM topics was highest for WFPB diets/healthier diet (62%), followed by how to improve sleep (34%), manage stress/tension (30%), improve exercise (28%), cope with anxiety (21%), and cope with depression (19%). Level of interest in specific topics was higher among women with relevant lifestyle issues.

Conclusions: Generally, older adult women were most interested in learning about the healthy habits for which they had the biggest gaps, including WFPB diet and restorative sleep. These findings imply an eagerness among patients to improve their health via lifestyle measures and should encourage providers to tailor counseling to self-identified areas of improvement.

C123 Resident Presentation
Diagnostic challenges due to a nomenclature change and bias in the elderly care: Embolic events as a presentation of *Streptococcus gallolyticus* bacteremia due to a colonic mass.

M. Miele, M. Velasquez. *Medicine/Infectious Diseases, New York City Health and Hospitals Metropolitan, New York, NY.*

Background:

In elderly patients, the precipitant factors of stroke are commonly overlooked and frequently attributed to aging, with little consideration for infection or malignancy as the underlying cause, reducing the chances of effective secondary prevention.

In turn, the universally known association between *Streptococcus bovis* and colon cancer seemed less recognized after its nomenclature change.

Methods:

We present a case of stroke and patchy multifocal pulmonary embolism (PE) precipitated by *Streptococcus gallolyticus* bacteremia as a presentation of occult colon mass.

Results:

A 74-year-old man with a history of schizophrenia, hypertension, and diabetes presented with sudden onset expressive aphasia. MRI of the brain demonstrated an infarct in the left middle cerebral artery territory, possibly embolic. During admission, he developed abrupt shortness of breath. CT angiogram showed patchy thrombi within the bilateral upper and lower lobes and the right middle lobe. Blood cultures were positive for *S. gallolyticus*, for which Ceftriaxone was started. Echocardiogram was negative for vegetations. Upon Infectious Disease evaluation, to look for possible malignancies, a CT abdomen/pelvis was obtained. It showed a 2x1x3cm undulating colonic intraluminal mass and two mesenteric lymph nodes greater than 2cm with necrotic features. He completed 14 days of antibiotics and biopsy/definitive management of colonic mass were planned for outpatient visits.

Discussion/conclusions:

S. gallolyticus, formerly known as *S. bovis* Type I, is a known cause of bacteremia and infective endocarditis in the elderly population and is often associated with colorectal cancer and hepatobiliary disease. The disruption of the colonic mucosa by tumors allows *S. gallolyticus*, otherwise a common gut organism, to travel to the bloodstream, sometimes leading to embolic phenomena, even in the absence of endocarditis, due to a direct embolus from the tumor. There are considerable gaps in knowledge of stroke causes, treatment, and prevention in elderly patients. In our patient, the identification of

the infecting organism, led to the detection of an occult colon mass. Physicians should be aware of this update in the nomenclature of *S. gallolyticus* and to pursue the etiology of cerebrovascular accidents in the elderly population.

C124 Resident Presentation

Delay in the diagnosis of cervicofacial Actinomyces in the elderly: the Great Masquerader of head and neck disease

P. Iqbal, J. Meng, A. Flores, M. Velasquez. *Medicine / Infectious Diseases, New York City Health and Hospitals Metropolitan, New York, NY.*

Background:

Actinomyces sp. is an oral commensal and opportunistic pathogen after a breach in the oral mucosa, invading and causing infection without respect for tissue planes. It is difficult to culture, and diagnosis frequently relies on a strong suspicion index and histopathologic findings. Older adults require a prudent management and follow-up approach to avoid under and over-treatment.

Methods:

We present a case of significant masticatory impairment due to mandibular actinomyces with polymicrobial coinfection diagnosed several months after symptoms started.

Results:

A 72-year-old Chinese man, independent, heavy smoker with history of hypertension and coronary artery disease requiring stenting, presented with progressive right-sided jaw pain and swelling of several months, noticed weeks after cardiac procedure, and associated with sinus tracking and yellowish discharge for the last 2-3 months. He had jaw surgery 50 years ago in China and dental surgery six years before admission. CT showed a 3cm lytic lesion of the mandible with a broad differential. While the tissue cultures yielded multiple other bacteria, the histopathology showed gram-positive filamentous bacterial aggregates, consistent with *Actinomyces sp.* by Gomori stain. Additionally to surgical removal of infected tissue, pathogen-guided antimicrobials were provided for six weeks, then tailored to amoxicillin for *Actinomyces sp.* coverage with a planned duration of 12 months. He self-reported significant improvement of his quality of life on his close follow-ups.

Discussion/conclusions:

Cervicofacial actinomyces is a well-known disease, yet not easy to diagnose due to inherent culture challenges and clinical/radiological similarities with neoplasms and granulomatous diseases. The characteristic macro and microscopic appearance of the yellow-colored 'sulfur' granules help to diagnose. Our patient underwent surgical removal of the infected mandible and prolonged antibiotic course with frequent follow-up visits that further consolidated effective treatment while monitoring for side effects, fortunately not encountered in this case.

We aim to highlight the importance of a high index of suspicion and the multidisciplinary collaborative efforts of various medical specialties addressing the complexities associated with this challenging condition.

C125 Student Presentation, Encore Presentation Development and Validation of a Novel Age Less-Dependent Frailty Index

B. C. Choy,¹ A. L. Troy,² H. Dong,² J. M. Gardin,³ C. Hirsch,⁴ K. J. Mukamal,² A. B. Newman,⁵ M. Odden,⁶ M. Shu,⁷ C. Wu,⁸ Y. Song,² J. Strom.² *1. Harvard Medical School, Boston, MA; 2. Beth Israel Deaconess Medical Center, Boston, MA; 3. Rutgers The State University of New Jersey, New Brunswick, NJ; 4. UC Davis Medical Center, Sacramento, CA; 5. UPMC, Pittsburgh, PA; 6. Stanford University, Stanford, CA; 7. University of Cincinnati College of Medicine, Cincinnati, OH; 8. Duke University, Durham, NC.*

Background: Phenotypic frailty is a proxy for biologic aging that, while correlated with chronologic age, confers risk independent of aging. As most frailty indices [FIs] correlate with chronologic age, it is challenging to identify features of biologic aging that may be independent of chronologic age. Thus, we aimed to create a novel frailty index that was less correlated with chronologic age.

Methods: Among 4,029 participants (72 +5 years, 59.6% female) who underwent echocardiography (TTE) at years 2 (1989-90) or 5 (1992-93) in the Cardiovascular Health Study (CHS), we created a novel FI (AGELESS index) comprised of variables more correlated with frailty (using a continuous version of the Fried FI) than age. In a random 75% derivation sample, we selected for frailty-associated variables with largest absolute differences between correlation with age and frailty, excluding Fried FI components. LASSO and Elastic Net techniques were used to select candidate predictors for the novel FI, which was then tested in a 25% leave out sample. The association of the AGELESS index and all-cause mortality was compared to that of the Fried FI, overall and stratified by age.

Results: Serum cystatin C, depression, diabetes, education, FEV1, and income (but none of 11 TTE variables) were selected for inclusion. Adjusted for age, individuals in the highest quartile of the AGELESS index had a higher risk of all-cause death compared with the lowest quartile (HR 1.44, 95% CI 1.17-1.79). The AGELESS index improved prediction of all-cause mortality within each age quartile compared to the Fried FI and was modestly less correlated with age ($r = 0.22$ vs. 0.28 , $p < 0.001$).

Conclusion: Amongst CHS participants who underwent TTE, we derived and internally validated a novel FI that is less associated with chronologic age and better predicts mortality within age strata compared with the existing gold standard for phenotypic frailty. This index could help identify frail patients at high risk of adverse outcomes across the spectrum of age, and may provide insights into mechanisms of biologic aging.

C126 Student Presentation

Assessment of Dementia Diagnoses and Management by Rural Primary Care Providers

C. D. Kahrs, D. Hughes, D. Rehor, H. Yost, B. Wertz. *The University of Kansas School of Medicine, Kansas City, KS.*

Background: As our population ages and the prevalence of dementia increases, rural primary care providers (PCPs) will need to be able to diagnose and care for patients living with dementia in limited resource settings with less access to specialists than their urban counterparts. This study explores the confidence rural providers have in screening, diagnosing, and managing care of dementia and how it aligns with services offered in their practice. The study's goal is to identify resources rural PCPs need to provide comprehensive dementia care.

Methods: A survey was sent to rural Kansas PCP preceptors, physician assistants and family nurse practitioners across 30 clinical sites during the 2022 summer training option and rural medicine program (STORM). Survey questions explored access to specialists and resources used in clinic for diagnosis of dementia. Likert scale questions pertaining to confidence in screening, diagnosing, and

managing dementia as well as if providers offered these services were included. Analysis included univariate statistics, bivariate tests, and qualitative analysis for open-ended questions.

Results: Of the 38 respondents, 18 respondents reported having more than 50% of their patient population over age 65. Most were diagnosing and managing the care of people living with dementia. There were statistically significant associations between provider confidence in diagnosing mild cognitive impairment or a subtype of dementia ($p=0.029$ and $p=0.002$, respectively) and the rate at which providers diagnosed these diseases in their practice. If a referral was warranted, respondents reported a specialist was within 120 miles and had an average wait time of 1-3 months. Common qualitative themes for resources needed among those who do not currently diagnose included need for access to a multidisciplinary team, more training, and longer appointments.

Conclusions: Having rural providers who are not currently diagnosing dementia due to lack of confidence, creates a barrier for patients to get the correct diagnosis. Resources identified as most needed include access to a multidisciplinary team, continuing education, and longer appointment times. There needs to be an emphasis on increasing access to these vital resources for those practicing in a rural area.

C127 Student Presentation

The Implementation of Frailty Measurement and Its Use in the Acute Care Setting: A Scoping Review

H. Hothi,¹ A. R. Paolone,² J. Lee.^{3,4} 1. Department of Medicine, University of Toronto, Toronto, ON, Canada; 2. Department of Medicine, Royal College of Surgeons in Ireland, Dublin, Ireland; 3. Center for Integrated Care, St. Joseph's Health System, Hamilton, ON, Canada; 4. Department of Medicine, McMaster University, Hamilton, ON, Canada.

Background: Frailty is a syndrome of increased vulnerability to health stressors that is associated with adverse health outcomes. Currently, there is no universally accepted method of measuring frailty and choosing amongst the many tools is often confusing for clinicians. The acute care setting presents unique challenges to the operationalization of frailty measurement and implementation into daily clinical practice has been variable. The objective of this scoping review was to map out and synthesize how frailty is being measured and used in the acute care setting.

Methods: We used Arksey and O'Malley's methodological framework for scoping reviews. We searched MEDLINE, EMBASE, CINAHL, SCOPUS, and Google Scholar for primary studies assessing frailty in the acute care setting from inception to May 2023. Two reviewers independently performed citation screening and data abstraction. We evaluated studies for the types of frailty measures used and how they were applied in acute care.

Results: Our search resulted in 8834 articles and 2614 articles met inclusion criteria. The majority of articles (75%) were published in the last 5 years. The most commonly used measures in studies were the Frailty Index (42%), the Clinical Frailty Scale (34%), the Frailty Phenotype (9%), the Frailty Indicator (5%), and the Hospital Frailty Risk Scoring System (3%). A variety of alternative measures were used in 544 articles and 313 articles used more than one frailty measure. The majority of studies measured frailty retrospectively to demonstrate its association with adverse health outcomes, while only 12 studies measured frailty on a prospective basis to adapt care.

Conclusion: There is an abundance of evidence demonstrating that frailty in acute care is associated with adverse health outcomes, but there are few studies implementing frailty measurement prospectively in real time. There is a need to focus on prospective measurement and evaluating how it impacts clinical care and outcomes in the acute care setting.

C128 Student Presentation

Health Promotion for Under-resourced Populations through an Interprofessional Community Service Learning Project

E. Ohman, C. Bakkum, J. Gibbons, S. Thompson, J. Holloway, G. D. Manocha, D. Jurivich. *Geriatrics, University of North Dakota, Grand Forks, ND.*

Introduction

Student centered Community Service Learning (CSL) is utilized by health professions training programs as an avenue to strengthen interprofessional (IP) education and experiential learning along with opportunities for population health training. Thus, the University of North Dakota (UND) School of Medicine and Health Sciences (SMHS) launched a student-led Health Promotions Program (HPP) to address these educational needs. This report describes a proof-of-concept project that entails wellness and motivational interviewing sessions between students and public housing residents.

Methods

UND partnered with Grand Forks Housing Authority to hold monthly group wellness sessions and weekly individual interviewing sessions. Volunteer SMHS students receive comprehensive online training in geriatric care, health coaching, substance use screening, confidentiality, open-ended questioning, trust-building, and cultural sensitivity prior to starting their visits. 4 MD, PT, OT, PA and/or SW students and 1 faculty mentor attend weekly sessions to interview interested residents regarding What Matters most, wellness, and their health plan. Based on responses, residents receive service recommendations, resources, and community referrals.

Results

HPP engage residents through group meetings and a weekly information table. 36 students (50% of the MS2 class) volunteered along with 5 faculty members. The inaugural quarter period drew ~10% of the housing residents (10) for individual interviews. To enhance resident recruitment, student organizers developed a set of Plan-Do-Study-Act cycles of change, thus introducing them to the AAMC competency of Health Systems.

Conclusion

This proposal emphasizes student competence in developing a health promotions curriculum that promotes collaboration among key stakeholders, Public Health, Health systems, Academia, and Public Housing. It highlights strong support from Public Housing, particularly in mental health. Barriers to IP engagement, such as need for on-site faculty from specific domains, preference for credit-based curriculum in some academic units over CSL, and Public Housing residents' mistrust of the healthcare system, all pose challenges. Addressing these issues is essential for successfully implementing the proposed curriculum and realizing its potential benefits.

C129 Student Presentation

Dementia Education for Karen Communities

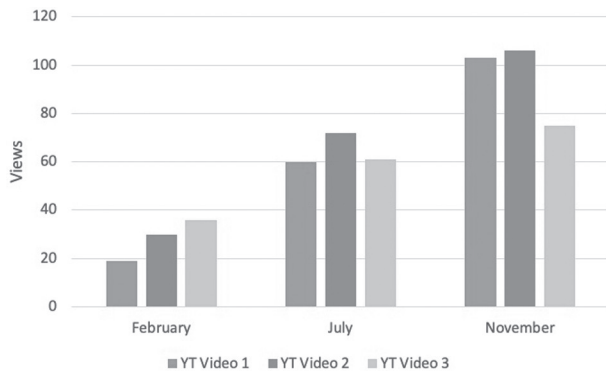
M. Zuercher, S. Merchant, M. Spurgin, J. F. Potter. *Internal Medicine (IM), Division of Geriatrics, University of Nebraska Medical Center College of Medicine, Omaha, NE.*

Background: As of 2020, there were 215,000+ Karen immigrants in the US mainly in New York, Minnesota, and Nebraska. Karen people experienced hardship/social/physical trauma in the home country Myanmar. Nebraska Geriatrics Workforce Enhancement Program (NGWEP) partners described many Karen people living with dementia (PLD) within their panels and language barriers to education. NGWEP collaborated with the Karen Society of Nebraska (KSN), were advised that on-line video was how health information was preferred and created 3 educational videos in the Karen language (Dementia; Mood and Behavior; and Working with Elders). Videos were posted to KSN Facebook page & YouTube in early 2023. This project aimed to make the videos accessible to and viewed by Karen people across the US.

Methods: During the summer of 2023, videos posted to YouTube were indexed and titles translated into Karen language; descriptions created, linked to resources, and meta-tags added to make videos “searchable”; work was completed 07/23/23. Contact was established with the Karen Organization of Minnesota. The Nebraska experience was discussed, interest in the videos confirmed and YouTube links posted on the KOM Facebook page. Project impact was assessed by change in # of views over time.

Results: KSN Facebook views on videos numbered 4700 for the 1st, 1400 each for the 2nd, 3rd videos. Following YouTube modifications, views increased as seen below.

Conclusions: Views on the KSN suggest that the videos are useful to the target population. Working with communities to develop health education requires collaboration for resources to be culturally appropriate and accessible. Our effort to enhance accessibility education for Karen People serves as a model for future efforts to make essential healthcare information more accessible.



C130 Student Presentation
Benefits of High vs Low Intensity Resistance Training for Treatment of Sarcopenia

A. Lathrop, B. Carney. *University of St. Augustine for Health Sciences, Irving, TX.*

Background

Sarcopenia is defined as the age-dependent loss of muscle mass. This loss of muscle mass leads to falls, fractures, reduced function, and reduced quality of life. Sarcopenia is prevalent in up to 24% of hospitalized older adults and up to 50% of those in nursing homes compared to only 10% of community dwelling older adults. These numbers outline a relationship between sarcopenia and living arrangements with inadequate levels of physical activity. Resistance training yields positive effects in those with sarcopenia. However, with no current consensus for the best resistance training intensity level, the purpose of this study is to determine whether higher or lower intensity resistance training is more effective in treating sarcopenia.

Methods

PubMed was the primary search engine used to investigate this topic, using the keywords “sarcopenia”, “resistance training”, “high intensity”, “low intensity”. Exclusion criteria includes no mention of intensity level and mean age of participants less than 60 years old. Seven articles were included in the data collection. Protocols were organized into low intensity (50% 1RM) and high intensity (>65%) categories based on percentage of one-rep max (1RM) defined by ACSM guidelines, or equivalent RPE.

Results

Results show that all intensities of resistance training help with muscle gain in people with sarcopenia. However, high intensity training produces more beneficial outcomes in terms of gaining/retaining muscle mass, muscle strength, and functional measures. Protocols using low intensity training had the same benefits, indicating that all training intensities are more beneficial compared to no exercise. Although there

was no consensus on best exercise prescription, the most important factor in positive results was training close to or to failure.

Conclusion

There are many factors to consider when treating sarcopenia. Results show that resistance training should be part of a comprehensive treatment including multiple training strategies, nutrition counseling, and education of the disease. The most important factor when considering resistance training is to have the person with sarcopenia training to fatigue or close to it.

C131 Student Presentation
Consistent Salience and Somatomotor Network Regions Involved in Urge Urinary Incontinence: A Systematic Review

J. Crookston, B. D. Clarkson, N. Resnick, L. Banihashemi. *University of Pittsburgh, Pittsburgh, PA.*

Purpose:

A growing literature focuses on the brain’s role in continence and urge incontinence (UI) and uses various techniques and analytic approaches. We systematically reviewed the literature to identify areas of convergence and divergence.

Materials and Methods:

Using Scopus and Medline, we identified 445 articles. Elimination of treatment-related studies and those focused on specific neurological diseases (e.g., multiple sclerosis, Parkinson’s disease) yielded 40 articles. A summary table was constructed.

Results:

The most consistently activated regions identified in most studies were related to the salience network (SN), including the insula, midcingulate cortex, and basal ventromedial thalamus, and to the somatomotor network (SMN), including the pre-SMA/SMA. Activity within additional SN regions, including the lateral prefrontal cortex and hypothalamus, was also found in several studies, along with the cerebellum and parietal lobule. Further, among comparison studies, most found greater activity (i.e., relative activation or deactivation) in UII patients compared to continent individuals.

Conclusions:

Overall, the consensus of overactivation of SN in UII patients suggests responses to salient stimuli related to distention. For SN regions, most studies found that UII patients experience greater brain activation in response to bladder volume manipulation. Further, greater activation within SMN regions was typically attributed to a failure of motor control in other regions. Thus, investigating communication within and between these key networks may be more important than whole-brain investigations of differences in activity. Future work will consider the differences between young and older populations with UII as well as the impact of various treatment methods for UII.

C132 Student Presentation
Opioid Prescriptions in Geriatrics for Chronic Non-Cancer Pain Management

M. Hernandez, F. Melaragni. *MCPHS University, Boston, MA.*

This study investigates the unique challenges, risks, and potential alternative treatments available for managing chronic non-cancer pain among geriatric patients. The study attempted to understand the prevalence and risks of opioid prescribing within this population and strategies that healthcare providers use to provide pain relief effectively. It is generally understood that opioids have inherent risks including addiction and overdose. In addition, prescribing opioids to the geriatric population may create additional risks that need to be understood.

The research approach involved two primary research methods. First, a comprehensive literature review was conducted to establish a baseline of current practices for opioid prescription and pain management in geriatric patients. This review offers insights into the prevailing trends, risks, and benefits associated with opioid use in older adults. Second, expert interviews were conducted with healthcare

professionals specializing in geriatric care. These interviews provided valuable first-hand perspectives on the challenges and strategies in managing pain and prescribing opioids in the geriatric demographic.

One of the key findings is the heightened risk of adverse effects in geriatric patients, which includes increased sensitivity to drugs, a higher likelihood of drug interactions, and a greater risk of dependency and abuse. Additionally, this study underscores a significant gap in the long-term research on the effectiveness and safety of opioids in chronic pain therapy for older adults. This gap points to the need for cautious and judicious use of opioids in geriatric medicine.

Despite these risks, the study also acknowledges the current lack of effective alternative treatments for certain types of chronic pain experienced by elderly patients. In some cases, opioids may be the only viable option for alleviating severe discomfort. This dilemma highlights the complex decision-making process in prescribing opioids for the elderly, where the benefits of pain relief must be carefully weighed against the potential for harm.

In conclusion, the research attempts to contribute to a deeper understanding of opioid use in geriatric pain management. It calls for a personalized, patient-centered approach that takes into account the unique physiological and psychological aspects of the individual. The study also suggests a need for ongoing research and development of safer, more effective pain management alternatives for this population.

C133 Resident Presentation
Assessing risk factors for malnutrition among older adults admitted to a large safety net hospital

M. L. Garcia,¹ U. Ohuabunwa.² 1. Internal Medicine, Emory University School of Medicine, Atlanta, GA; 2. Division of Geriatrics and Gerontology, Emory University School of Medicine, Atlanta, GA.

Background: Age-Friendly health systems traditionally focus on four pillars of geriatric care (What Matters, Medication, Mobility, and Mentation). In our large safety net system, Malnutrition has been identified as the “5th M.” We sought to assess risk factors for malnutrition among older adult patients admitted to our safety net hospital.

Methods: A total of 243 charts were reviewed of hospitalized patients age 65+ admitted to the geriatrics unit September-November 2021 who were screened for malnutrition. Case-control design was used to compare characteristics of patients with and without malnutrition; characteristics included dysphagia, poor appetite, depression, known or suspected dementia, poor dentition, polypharmacy, institutionalization, and food insecurity. Retrospective cohort design was used to compare 30-day readmissions and 1-year mortality among patients with/without malnutrition. Unavailable data excluded patients from analysis for specific characteristics. Odds ratios, relative risk, and descriptive statistics were calculated with STATA/IC 16.1 and Excel. This study was IRB approved.

Results: Study population had median age of 78 years old with 29.2% of patients diagnosed with malnutrition during index admission (57.8% of these with severe malnutrition). Among 80-84 year-old patients, 50.0% had malnutrition. Malnourished patients were significantly more likely to have poor appetite compared with nourished patients (OR = 2.36; 95% CI = 1.29-4.32). Odds of other studied characteristics were also higher among malnourished vs nourished patients but did not reach statistical significance. Having dementia approached significance (OR = 1.72; 95% CI = 0.95-3.12). Some risk factors, including poor dentition and food insecurity, were not consistently documented. Relative risk of 1-year mortality for malnourished vs nourished patients was 1.98 (95% CI = 0.84-4.64). Relative risk of 30-day re-admission to the same hospital was 0.86 (95% CI = 0.38-1.93).

Conclusions: Interventions that focus on poor appetite may be of benefit for older adult patients at risk for malnutrition. Robust screening protocols for routine assessment and documentation of malnutrition risk factors including food insecurity and dentition could benefit development of interventions.

C134 Resident Presentation
The prevalence of geriatric syndromes among older adults with advanced chronic kidney disease seeking kidney transplant.

K. Harada,¹ Y. Shichijo,³ F. Ko,² S. Lerner,⁴ G. Rosen,² S. Chow.² 1. Department of Medicine, Mount Sinai Beth Israel Hospital, New York, NY; 2. Icahn School of Medicine at Mount Sinai Brookdale Department of Geriatrics and Palliative Medicine, New York, NY; 3. Internal medicine, Mount Sinai Beth Israel Hospital, New York, NY; 4. Recanati-Miller Transplantation Institute, Mount Sinai Hospital, New York, NY.

Introduction

Although kidney transplantation (KT) has become more prevalent in geriatric populations, its management is complicated by challenges due to higher comorbidities, frailty, medication non-adherence, and surgical complications. Geriatric co-management has been recognized as an important model in addressing these challenges. This study aimed to assess the prevalence of geriatric syndromes in older KT candidates with advanced chronic kidney disease (CKD) in a novel ambulatory geriatric co-management model.

Method

We retrospectively reviewed the medical records of patients who were evaluated in a geriatric co-management clinic between January 2021 to October 2023. Patients were candidates for KT 65 years or older with advanced CKD, and referred by the transplant surgeons for pre-transplant comprehensive geriatric assessment (CGA).

Results

In total, 225 patients were evaluated during the study period. The mean age was 73.1 ± 3.7, and 64% were male. On physical assessment, 26% of patients were considered vulnerable or frail based on the Clinical Frailty Scale. 44% of patients had moderate to high fall risk. A cognitive evaluation revealed a Montreal Cognitive Assessment score of 21.8 ± 5.0; 47% of patients had mild cognitive impairment, and 4.1% had dementia. The surgical risk for KT determined by revised cardiac risk index, frailty and cognitive impairment was assessed as “high” among 20% and “intermediate” among 78% of patients. Polypharmacy was present in 87% of patients. The healthcare proxy form was completed with 87% of patients during the encounter.

Conclusion

Our study revealed a moderate prevalence of frailty and a high prevalence of cognitive impairment and polypharmacy among older patients seeking KT. Previous studies showed that frailty in KT recipients is associated with surgical complications, postoperative delirium, early hospital readmission, and mortality. This pre-operative CGA and frailty assessment conducted by geriatricians and social workers may help identify risk factors for unfavorable outcomes and implement targeted intervention strategies to decrease adverse impacts.

C135 Student Presentation
Cognitive Assessment and Care Planning in Primary Care

O. Oniha,¹ M. Blinka,² E. M. Kelly,³ E. Angomas,² M. McGuire,² C. Boyd,² Q. Samus,² H. Amjad.² 1. University of Maryland Baltimore County College of Natural and Mathematical Sciences, Baltimore, MD; 2. Johns Hopkins University, Baltimore, MD; 3. University of Cincinnati, Cincinnati, OH.

Background: Most dementia care occurs in primary care though quality of care is variable.

Medicare introduced the cognitive assessment and care planning (CACP) billing code to improve dementia care quality. Our objective was to assess physician, interdisciplinary staff and patient/caregiver perspectives on potential CACP implementation in primary care.

Methods: We conducted semi-structured interviews discussing dementia care with 28 primary care team members (providers [PCPs], nurses, medical assistants, pharmacists, care managers, social workers, practice administrators) and 15 patients and/or caregivers from community-based practices in a large Mid-Atlantic health system.

Maximum variation sampling was used to recruit participants diverse in race/ethnicity and clinic location/characteristics. We used qualitative content analysis to identify themes related to potential CACP in primary care implementation outcomes: acceptability, appropriateness, and feasibility.

Results: Participants felt CACP was acceptable. PCPs, staff, and caregivers felt it would be helpful for patients and families. PCPs and staff expressed shared motivation for providing quality dementia care. Perspectives on appropriateness of CACP in primary care was generally favorable. PCPs and staff noted that they are already addressing most CACP care domains in routine care and Annual Wellness Visits. Participants had mixed views on the role of primary care conducting CACP versus a specialist. Feasibility was unclear. Major barriers to CACP in primary care were time and staffing constraints. However, advances in primary care had potential to enhance feasibility. Access to an interdisciplinary primary care team, telehealth, and electronic medical record templates were recognized by PCPs and staff as tools to improve feasibility. Dementia/CACP training and education were also needed for CACP to be feasible.

Conclusions: CACP is felt to be acceptable and appropriate as an intervention to improve dementia care in primary care. Feasibility in primary care is unclear; successful and sustainable implementation likely requires addressing time constraints while optimizing interdisciplinary team roles, and PCP/staff training and support needs.

C136 Student Presentation

Physician Communication Quality is Associated with Advance Care Planning Engagement

K. Thorisch,² A. M. Walling,¹ R. Sudore,⁴ C. Tseng,¹ R. D. Hays,¹ L. Gibbs,³ M. Rahimi,³ N. S. Wenger.¹ 1. *University of California Los Angeles, Los Angeles, CA*; 2. *OU College of Medicine, Oklahoma City, OK*; 3. *University of California, Irvine, Irvine, CA*; 4. *University of California, San Francisco, San Francisco, CA*.

Background: Advance care planning (ACP) prepares patients for decision-making about serious illness and end of life care. We evaluated whether patient-rated physician communication quality was associated with ACP engagement.

Methods: We analyzed baseline survey responses from the UC Health Care Planning Study, a pragmatic trial aimed to increase rates of ACP among primary care patients with serious illness at 3 California academic health systems. Eligible patients had no advance directive or POLST in their medical record in the last 3 years. The survey included a 5-item Consumer Assessment of Healthcare Providers and Systems (CAHPS®) communication scale (0-4 with coefficient alpha = 0.88) and an ACP engagement Guttman scale with responses ranging from 0 for never heard of ACP to 4 for having discussed wishes with a medical provider (coefficient of reproducibility = 0.91, coefficient of scalability = 0.71). Multivariate linear regression models were estimated to assess the association of CAHPS (tertiles, scored < 3.5, 3.5-3.99, 4.0) and demographic variables with ACP engagement.

Results: Of 1100 patients (20% response rate), average age was 69; 52% male; 60% White, 18% Hispanic, 9% Asian, 7% Black, and 6% other, and 10% Spanish-speaking. Mean CAHPS scores at baseline were 3.59 (SD = 0.54) and ACP engagement scores were 1.96 (SD = 1.30). Patients with CAHPS scores 3.5-3.99 (compared to < 3.5), had more ACP engagement (0.23 higher, 95% CI 0.04-0.45); those with a score of 4.0 had the highest engagement (0.30, CI 0.11-0.49). More education, greater social support, and older age were also associated with more ACP engagement ($p < 0.05$). Less ACP engagement was associated with uncertainty about care preferences and higher Social Vulnerability Index.

Conclusions: Future work should evaluate interventions to enhance physician communication can improve ACP among patients with serious illnesses.

C137 Student Presentation

Sustaining the Gains: How COVID-19 Spurred Innovations in Peer Support Programs Addressing Loneliness and Isolation Among Older Adults

K. Hough,¹ C. Perissinotto,¹ S. Fuller,² S. Tha,¹ N. Singh,¹ D. Hill,³ R. Zevin,⁴ J. Myers,¹ D. Meier,⁵ A. Kotwal.¹ 1. *University of California San Francisco, San Francisco, CA*; 2. *Johns Hopkins University, Baltimore, MD*; 3. *Curry Senior Center, San Francisco, CA*; 4. *Richmond Area Multi-Services Inc, San Francisco, CA*; 5. *Icahn School of Medicine at Mount Sinai, New York, NY*.

Background: Peer interventions, which involve pairing individuals of similar age or life experience, played an expanded role in addressing loneliness and social isolation of older adults during the COVID-19 pandemic. We aimed to understand successful adaptations of peer programs in California during the pandemic that may be sustained or scaled to address the ongoing public health challenge of loneliness and social isolation.

Methods: We conducted 45 in-depth qualitative interviews with 1) current and former older adult clients (n=24) 2) peer specialists (n=12) and program leaders (n=9) from four programs across California. Interviews (conducted from August to November 2023) centered on program adaptations during the pandemic and lessons learned for sustaining or expanding programs.

Results: Clients had a median age of 70, 42% identified as women, 17% transgender, 46% functionally impaired, 21% former clients, and 21% spoke primarily Spanish. Three program adaptations were identified. First was the use of technology (phone, video, texts) for social interactions. Clients and peers described barriers related to device access, functional impairment, and skepticism about the value of technology-mediated visits. Peers and program leaders therefore developed multi-modal forms of contact and resources for training and access to technology. Second, peers adapted to expanded roles on interdisciplinary behavioral health teams and addressing complex social needs (substance use, homelessness, and homebound). Peers described how newly available state certification could enhance training and credibility for tasks. A final adaptation was using Medicaid reimbursement for peer services (passed in 2022) to aid in financial sustainability. However, program leaders had concerns over complex billing impacting the flexible, non-medical structure of peer programs.

Conclusion: The COVID pandemic created opportunities for successful peer programs to innovate in service delivery, which have implications for financial sustainability, training, and infrastructure needed to support and scale peer programs to meet the needs of older adults.

C138 Student Presentation, Encore Presentation

Exploring physicians' perspectives on cannabis use for medical/therapeutic purposes with a focus on older adults: a mixed-methods study

P. O'Malley,^{1,2} A. Nguyen,² D. Abu Baker,² N. Nguyen,² L. Tibirićá,² J. Diaz,² L. Zhao,² J. Foo,² M. Delyea,² A. Moore.² 1. *Tulane University School of Medicine, New Orleans, LA*; 2. *University of California San Diego School of Medicine, La Jolla, CA*.

Background: Cannabis use is increasing among older adults in the US since the widespread legalization of cannabis and more permissive drug use attitudes among baby boomers. While several studies have examined the experiences of cannabis users and their reasons for use, there are little data on physicians and their understanding of, and perspectives on, cannabis use, particularly among older adults who have different reasons for use and risks associated with cannabis compared to younger adults. To fill this gap, we interviewed primary care physicians to better understand their knowledge of cannabis, experiences of, and attitudes toward, discussing medical cannabis use with older patients.

Methods: Quantitative survey and qualitative semi-structured interview data were collected simultaneously using a mixed-methods design. Participants were University of California San Diego primary care physicians. Data included demographics and items on cannabis education, conversations with patients, and stigma related to medical cannabis use. Convergent analysis of qualitative and quantitative data is being performed.

Results: 20 family or internal medicine physicians completed the study. Nearly two-thirds of the sample reported some training or education related to cannabis, half stated they did not feel competent discussing cannabis use with patients aged 65 years or older, and nearly two-thirds endorsed that there is stigma associated with cannabis use in this age group. Emerging themes include a lack of training among physicians related to cannabis, concern about efficacy, drug interactions and potential side effects, regulation of cannabis as a therapeutic, and increasing comfort discussing cannabis use with older patients due to decreasing stigma and more accessibility. Participants expressed that stigma continues to diminish, likely due to regulatory changes in California in the past decade.

Conclusions: Physicians felt they need more training in cannabis to effectively counsel patients and while stigma is still associated with cannabis use in older adults, it is diminishing. Formal training, such as lectures related to appropriate dosages and routes of administration, may help physicians feel better equipped to discuss cannabis use with patients.

C139 Student Presentation

Association Between Days Spent at Home and Functional Status and Health among Persons Living with Dementia

N. Qureshi,^{1,2} T. Nuckols,¹ Y. Tsugawa,³ Z. Tan,¹ H. Gotanda.¹
1. Cedars-Sinai Medical Center, Los Angeles, CA; 2. Pardee RAND Graduate School, Santa Monica, CA; 3. Health Policy and Management, University of California Los Angeles Jonathan and Karin Fielding School of Public Health, Los Angeles, CA.

Background: Many persons living with dementias (PLWD) prefer to remain at home as long as possible, and days spent at home (DAH)—defined as the time an individual spends outside of a facility—has emerged as a person-centered outcome measure in this population. We sought to examine the association between DAH and functional status and health among PLWD.

Methods: Utilizing a nationally representative cohort of individuals age 65 and older with dementia from the 2010-2018 Health and Retirement Study (HRS), we assessed the relationship between DAH and number of activities of daily living (ADLs) (range 0-10; 10 being independent), mobility (0-5; 10 being mobile), and self-rated health (SRH) (0-4; 4 being excellent), controlling for patient characteristics. DAH was defined as the number of self-reported days spent outside a hospital or nursing home in the time between survey waves, typically 730 days, and categorized into four groups: 730 (all days at home), 716-729 (0-2 weeks away), 702-715 (2-4 weeks away), and less than 702 days (more than 4 weeks away).

Results: We identified 3,002 participants (4,192 observations, average of 1.4 observations per participant). The mean DAH was 704.4 days (SD 10.8 days) and 64.9% spent all days at home (i.e., 730 days). A two-week decrease in DAH was associated with a lower ADL score by 0.45 points (95% confidence interval [CI]: 0.34-0.55, p-for-trend<0.001), a lower mobility score by 0.23 points (95% CI: 0.18-0.29, p-for-trend<0.001), and a lower SRH by 0.08 points (95% CI: 0.04-0.12, p-for-trend<0.001).

Conclusion: We demonstrate that DAH is positively associated with important patient-reported outcomes among the dementia population, strengthening the argument for considering DAH as a meaningful outcome measure for PLWD.

C140 Student Presentation

High-risk medication and potentially inappropriate medication use among patients with and without dementia

N. Qureshi,^{1,2} M. Keller.³ *1. Cedars-Sinai Medical Center, Los Angeles, CA; 2. Pardee RAND Graduate School, Santa Monica, CA; 3. Medicine, Cedars-Sinai Medical Center, Los Angeles, CA.*

Background: High-risk and potentially inappropriate medications (PIMs) are associated with a higher risk of hospitalizations and other adverse events. The objective of this descriptive study was to examine prescribed high risk and PIMs prescribing among community-dwelling older adults (65 years and older) with and without dementia in a health system over a 5-year period to examine potential differences.

Methods: We created several cohorts of older adults for the years 2017-2021 who either had Medicare and were part of the health system Accountable Care Organization or had Medicare Advantage, had a primary care physician at the health system and had at least 1 office visit with a health system physician in the prior year. We defined an index visit as the first office visit for each patient in that year and extracted medication, clinical, and demographic data from the electronic health record (EHR) database from a year prior and after the index date. We compared high-risk and PIM use among patients with/without dementia and taking high risk medications or PIMs. High-risk medications included medications to treat diabetes (e.g., insulin, sulfonylureas), atrial fibrillation (e.g., anticoagulants), and chronic pain (e.g., opioids). PIMs were defined as medications on the American Geriatrics Society 2019 Beers list.

Results: There were 8,281-18,244 patients per cohort (increasing by year), 1.6-3.6% of which had a diagnosis of dementia. Among patients taking high-risk medications, 3.0-5.5% were diagnosed with dementia, increasing monotonically over time. Among patients taking PIMs, 26.7-29.3% were diagnosed with dementia, staying relatively constant over time.

Discussion: We found a large proportion of patients prescribed PIMs were also diagnosed with dementia, a proportion that did not decrease over time, despite numerous guidelines about the risks of these medications among patients with cognitive impairment. The overlap between patients taking PIMs and a dementia diagnosis may reflect the fact PLWD are often prescribed PIMs for behavioral symptoms associated with dementia. Clinicians should aim to reduce high-risk medication and PIM use among PLWD, substituting non-pharmacologic therapies and medications with lower risk profiles.

C141 Student Presentation, Encore Presentation

The Influence of Clinical Diagnosis and Psychosocial Factors on Psychiatric Advance Directive Usage in a Large Metroplex City

V. Mathesh,¹ N. Guntu,¹ I. Alexander,¹ M. Ali,¹ M. Narvaez,¹ C. Clark,² N. Provenzale,² J. Reisch,¹ A. Khandai,¹ M. Husain.¹
1. Psychiatry, The University of Texas Southwestern Medical Center Medical School, Dallas, TX; 2. Parkland Health, Dallas, TX.

Background: It is estimated that only 1/3rd of US adults will detail a Medical Advance Directive (MAD) in their lifetime. Fewer still will complete a Psychiatric Advance Directive (PAD), despite the high rate of critical psychiatric conditions in older adults, including late-stage neurocognitive disorders. PADs are used to help those with psychiatric illness specify what care they might want in the event of psychiatric crisis, for example, whether they would want electric convulsive therapy if experiencing an episode of acute major depressive disorder, which is something a medical power of attorney cannot do for them. Furthermore, Black older adults are less likely to complete a MAD than their white counterparts, indicating potential racial disparities. Due to minimal research, PADs remain a black box to both patients and healthcare workers. Thus, the goal of this study is to establish a robust framework on the status quo of PAD usage in a large metroplex city and elucidate how the adoption of PADs/MADs are influenced by psychosocial factors.

Methods: Participants were randomly selected adults at University of Texas Southwestern Medical Center seen from 2018-2023 with a current/past psychiatric illness diagnosis. Researchers conducted a retrospective chart review noting PAD/MAD adoption, psychiatric Diagnosis(es), and demographic data.

Results: 320 patients were included in the study (age= 62.4 +/- 17.35 years, mean +/- SD, 133 patients identified as male, 187 patients identified as female). 72% of the patients identified as White, 19% as Black, 2% as Asian, and 7% comprised of other races. Across all 320 patients, the prevalence of PAD utilization was nonexistent (0%) with the prevalence of a PAD mention (whether it has been offered/asked if on file) as near zero (0.003 %). The one time a PAD was mentioned on file, it was from a transition of care document for the patient outlining how a PAD wasn't on file.

Conclusion: Results indicate that PAD usage, despite its published availability with the hospital system, is incredibly low. After elucidating trends in PAD usage, further steps must be undertaken to carefully design initiatives to promote PAD usage that are inclusive, aimed at empowering patient autonomy among older adults.

C142 Student Presentation

Hospital-initiated antipsychotic stewardship: The time is now!

M. Singh. *Brown University, Providence, RI.*

Background: Antipsychotic medications (AP) are often initiated in hospitalized patients with lasting consequences. Hospital-initiated new AP use may be associated with the outcome of successful discharge to the community (SDC). Our objective was to examine the association of new AP use with SDC.

Methods: Our retrospective cohort study assessed AP exposure in AP-naive veterans hospitalized with heart failure (HF) and discharged to the community between January 2011 and June 2019. We utilized bar coded medication administration data to identify and measure exposure to new hospital initiated AP use. AP exposure was defined as administration of at least one dose of AP medication during the index hospitalization. SDC was defined as surviving 30 days after a community discharge without skilled nursing, hospital, or hospice admission. Inverse probability of treatment weighting (IPTW) was used to balance baseline characteristics, and logistic regression was used for outcome analysis.

Results: Analytic cohort had 282,122 Veterans with mean age of 72.3 (standard deviation (SD)=11.1) years; of which 2.4% (n=6,704) were female. New APs were initiated in 4.4% (n=12,303) of the cohort. Overall, 78% (n=220,128) of the cohort was discharged to the community and SDC was observed in 62.4% (n=176,144). AP users had a lower proportion of SDC, 29.9% (n=3688) as compared to non AP users 63.9% (n=172456). After IPTW analysis, new AP use was associated with a 75% lower odds of SDC (OR 0.25, 95% CI 0.24, 0.26)

Conclusions: Our study reveals a strong association of new hospital-based AP use with reduced SDC following heart failure admission. This finding highlights the profound impact of a short term decision of AP initiation on a long term consequence of significant importance.

C143 Student Presentation

Disproportionate Access to Geriatric and Oncology Services by Rural versus Urban Location

M. Dhillon,¹ I. Diminich,² M. Schiaffino.³ *1. California Health Sciences University, Clovis, CA; 2. University of California Los Angeles, LA, CA; 3. Center for Health Equity, Education, Research, University of California San Diego Moores Cancer Center, La Jolla, CA.*

Background: Approximately 58% of all new cancer cases are diagnosed among adults over the age of 65 in the U.S. Current hospital resources and staffing are underequipped to handle this influx of newly diagnosed cancer patients, especially in rural areas. Older adults are more likely to live in rural communities than metropolitan ones

and are thus at a greater risk of not having access to specialized geriatric and oncology services necessary for their unique needs.

Methods: This observational study assesses the availability of geriatric and oncology services at U.S. acute care hospitals using the American Hospital Association 2020 Annual Survey database (N=4570). Our study utilized the U.S. Census Bureau's definitions of rural, micropolitan, and metropolitan areas.

Results: We found that rural hospitals (RH) reported the lowest prevalence of geriatric and oncology services compared to metropolitan hospitals (MH) at 39.14% and 45.92%, respectively, followed by micropolitan regions at 46.19% and 68.14%, respectively (all p<0.0001). This inequity persisted as services became more specialized, including chemotherapy, mammography services, virtual endoscopies, pain management, and interventional radiology (all p<0.0001). The availability of chemotherapy services was 28.14% in RH, compared to 61.10% in MH. Similarly, RH struggled in providing mammography services (56.47% in RH versus 68.94% in MH), virtual endoscopies (6.85% in RH versus 32.99% in MH), pain management (35.08% in RH versus 60.92% in MH), and interventional radiology (14.26% in RH versus 56.18% in MH).

Conclusion: Our findings demonstrate the unique challenges older adults face in accessing geriatric and oncology services in rural communities. This lack of access has the potential to decrease quality of life and add unnecessary burdens, including financial and increased risk for adverse events. Addressing these inequities demands a concerted effort involving policymakers, healthcare administrators, and stakeholders to bridge the gap in service provision. Ensuring equitable access to specialized healthcare services for older adults across all geographical areas necessitates comprehensive policy reforms and resource allocation aimed at repairing healthcare infrastructure in rural communities.

C144 Student Presentation

Understanding Person-Centeredness from a Systems Perspective: Implications for Long Term Care of Older Adults

A. Syed,¹ P. Sloane,¹ S. Zimmerman,¹ S. Fazio.² *1. The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2. Alzheimer's Association, Chicago, IL.*

Background: Person-centeredness has become an overused phrase in the context of care for older adults, despite a lack of consensus regarding its definition, measurement, and application. As part of a series of studies aimed at better understanding person-centeredness, we sought to identify key themes about person-centeredness as it applies to the system (macro) level, as opposed to the setting (meso) and interpersonal (micro) levels.

Methods: Four think-tank meetings (two in-person; two virtual) were held and results analyzed; the 63 participants included direct care workers from an assisted living community in Maryland, providers and consumers from a dementia care provider roundtable, and policy makers, ethicists, and researchers from across the United States. Think-tank meeting prompts addressed a range of systems, including education, government, workplace, and healthcare. Analyses identified themes associated with variation in person-centeredness.

Results: Five key themes emerged: (1) The goals and manifestation of person-centeredness vary depending on the type of system, level within a system, and the role of the individual within the system. (2) The amount of person-centeredness provided in a setting depends on available resources such as time and money. (3) Some limits on person-centeredness are necessary for system success. (4) Societal inequities, such as discrimination, bias, and language barriers, hinder person-centeredness. (5) Principles of person-centeredness from the hospitality industry can be applied to other settings, including health-care and long-term care.

Conclusion: Results draw parallels between a variety of systems, demonstrating universal applicability, including to healthcare and

long-term care for older adults. The themes identified may help guide future policy, practice, and research regarding realistic and effective application and evaluation of person-centeredness in relation to the care of older adults. In particular, these themes may guide practices for care staff training and retention, policies balancing individual and community needs, and a diversity approach to care.

C145 Student Presentation

Integrating Certified Nursing Assistants into Interdisciplinary Care Teams and Resident Care Planning

M. Ermolenko,¹ A. Raval,² A. Jimenez,² A. Balaji,³ S. Shennoy,³ M. Bergh,² J. Travers.² *1. University at Buffalo, Buffalo, NY; 2. New York University Rory Meyers College of Nursing, New York, NY; 3. New York University School of Global Public Health, New York, NY.*

Background

The integration of certified nursing assistants (CNAs) into interdisciplinary care teams (IDTs) and comprehensive care planning is necessary for the delivery of quality care for nursing home residents. In 2016, the Centers for Medicare and Medicaid Services (CMS) developed requirements for this integration. However, the CMS requirements have been deemed too ambiguous and flexible, especially since CNAs face a multitude of challenges in participating in IDT meetings and resident care planning. This study aims to characterize perspectives on how CNAs have been integrated into IDTs and care planning, along with how they can be integrated into these teams and activities to inform the creation of a toolkit to support their integration more broadly.

Methods

This was a qualitative study guided by Donabedian's Quality of Care Model. We used the State Survey Agency Directory along with snowball sampling and personal networks to recruit key informant participants (e.g., nursing home surveyors, social workers, CNAs, director of CNAs, and geriatricians) from around the country. One-on-one interviews were conducted via Zoom and lasted approximately 30 minutes. Audio-recorded interviews were transcribed verbatim and analyzed using a directed content analysis approach.

Results

Seventeen key informants participated in the interviews. Five themes emerged from the data and included nursing home leadership, effective communication, intentional integration of CNAs, recognition of challenges for CNA integration, and enhancing resident outcomes through CNA integration. Themes subsequently informed the development of the INTEGRATE toolkit which focuses on: CNA integration into the nursing home team, scheduling IDT meetings, cultivating communication, creating structures to measure and monitor CNA integration, CNA development and progress, and nursing home leadership and culture.

Conclusions

Study findings informed the development of INTEGRATE which will provide nursing homes more direction on how they might integrate CNAs into IDTs and resident care planning.

Next steps are to continue to refine INTEGRATE and test its efficacy and acceptability.

C146 Student Presentation

Climate Change and Emergency Preparedness for Hurricanes among Nursing Homes in Texas

B. Lacy,¹ A. Holland,² Y. Kang, Huiwen Xu,² B. Downer.² *1. John Sealy School of Medicine, The University of Texas Medical Branch at Galveston Development Office, Galveston, TX; 2. School of Public and Population Health, The University of Texas Medical Branch at Galveston Development Office, Galveston, TX.*

Hurricanes are a major threat to nursing homes along the Texas Gulf Coast, and climate change will increase inland nursing homes' risk of catastrophic winds and flooding. The Centers for Medicare

& Medicaid Services (CMS) uses twenty-five regulations to assess nursing homes' emergency preparedness. This study compares the prevalence of any deficiencies in emergency preparedness regulations between Texas nursing homes in coastal and non-coastal counties. We also investigate the risk of future flood and wind events for nursing homes in non-coastal counties with any emergency preparedness deficiencies. Information for emergency preparedness deficiencies came from CMS inspection surveys. We used data from the First Street Foundation for the percentage of properties in a census tract with severe-extreme risk of flooding and damaging winds in 30 years. We used quartiles to define our highest risk categories as the census tracts with >7% of properties with severe-extreme risk for flooding and >50% with severe-extreme risk for damaging winds. The final sample included 1,153 nursing homes. The percentage of nursing homes with any deficiencies was significantly higher in non-coastal (13.9%) than coastal (8.7%) counties. This difference remained statistically significant after adjusting for ownership type, overall rating, and number of beds (OR=0.57, 95% CI=0.33-0.94). Among the 131 non-coastal nursing homes with any emergency preparedness deficiencies, 21.4% and 12.2% were in the highest risk categories for future flood and wind damage. Texas nursing homes, especially those in non-coastal counties, must be aware of their increasing hurricane risk and prepare to keep residents safe.

C147 Student Presentation

Quantifying Hispanic Representation in Geriatric Primary Care

E. Enriquez Hesles,² M. Luna,² K. Duffy,¹ J. Mutter,¹ C. Tieu.¹ *1. Geriatric Medicine, University of Virginia, Charlottesville, VA; 2. University of Virginia, Charlottesville, VA.*

Background: Geriatricians play a pivotal role in providing both primary and specialist care to older adults. There is data to suggest that direct care by geriatricians may lead to better clinical outcomes than interventions wherein geriatricians play a supporting role. Despite this, preliminary data suggest disparities in accessibility for minority populations. This project aims to construct a comprehensive demographic profile focusing on Hispanic patients empaneled within the University of Virginia (UVA) Geriatrics section.

Methods: To contextualize data, we obtained estimates from the 2022 Census, breaking down the aged 65+ population by ethnicity to obtain the baseline representation locally. Through the UVA electronic medical record (EMR) system, we quantified the number of Hispanic patients aged 65+ receiving care through UVA's Geriatrics section and compared this to the number receiving care from a representative UVA General Internal Medicine clinic. All patients aged 65+ enrolled in the UVA EMR system for the year 2022 were included in the quantitative analysis.

Results: According to the 2022 Census, Albemarle County's estimated population aged 65+ was 23,685, with 427 individuals (1.8%) having Hispanic backgrounds. This contrasts with the total county population which was found to be 6.1% Hispanic. Additionally, EMR data suggest that Hispanic adults are underrepresented in patient panels of geriatricians compared to general medicine internists. Only 0.85% (n=2211) of patients empaneled within geriatric clinics in 2022 identified as Hispanic compared to 5.97% in a representative General Internal Medicine clinic.

Conclusion: The preliminary data collected from the Census reveal a lower-than-expected number of older Hispanics in the community. Furthermore, our findings suggest that Hispanic older adults tend to receive primary care disproportionately more often from general medicine internists than geriatricians. We aim to delve into the underlying reasons for this which may be associated with factors such as referral bias, cultural differences in how individuals prefer to care for their elders and overall accessibility to geriatric care. This initial study serves to quantify observations, enabling us to identify unmet needs and inform future initiatives to care for older Hispanics in the ambulatory setting.

C148 Student Presentation Incentivizing Evidence-based Program Implementation in Rural Texas

A. B. Crocker,^{1,2} B. A. Samper,¹ R. B. Williams,¹ *1. School of Veterinary Medicine, Texas Tech University, Amarillo, TX; 2. Family & Community Health, Texas A&M University System, College Station, TX.*

Background

Nearly one-third of US adults over age 65 fall annually (CDC, 2023), and falling continues to be among the leading causes of unintentional injury death in Texas (Texas DSHS, n.d.). Evidence-based interventions (EBI) help participants reduce their fear of falling as well as increase their physical activity and build capacity to prevent falls. Due to a variety of factors associated with implementing EBIs, many entities incentivize their implementation. This research explores if differences in outcomes exist between incentivized and non-incentivized implementation of an EBI in rural Texas.

Methods

To determine whether implementation incentives affect program outcomes, we conducted a secondary analysis of 941 surveys from *A Matter of Balance* participants collected between 2013 – 2023. Of these surveys, $n = 154$ were from incentivized implementation, $n = 787$ were from non-incentivized implementation. All sites were in counties that meet the Health Resources and Services Administration (HRSA) definition of rural and the project was supported, in part, by grant funding from HRSA, US Department of Health and Human Services, under grant number UIQHP28735.

Results

Wilcoxon rank-sum test for independent samples show participants improved confidence ($p < .001$), decreased concern ($p < .001$), and increased physical activity ($p < .001$). Difference-in-differences regression shows that participants' post-intervention confidence and exercise scores increased by .1 and .04, respectively, with no significant difference between incentivized and non-incentivized implementation; post-intervention concern score increased .13 with no significant difference between implementations.

Conclusion

The results demonstrate the effectiveness of the *A Matter of Balance* series in increasing confidence, physical activity, and awareness. Additionally, they show there is no significant difference in whether the implementation is incentivized. The study supports continued incentives for program implementation, increasing dissemination and helping overcome barriers.

C149 Student Presentation Public Sector, Public Health: Investigating public sector involvement in healthy aging initiatives.

H. Li,² J. R. White,² J. Pandey,¹ *1. Pathology, Central Michigan University College of Medicine, Mount Pleasant, MI; 2. Central Michigan University College of Medicine, Mount Pleasant, MI.*

Background: As mean life expectancy increases, adults will need geriatric care for longer periods of time. A significant number of aging populations have multiple comorbidities and a greater need for measures to ensure wellbeing and healthy aging: in fact, all 73 million baby boomers will be 65 years old by the year 2030 (1). We investigate the public sector's influence on healthy aging at the community level, and if there was effective cooperation between public sector, specifically federal/state/local government, and communities at implementation level.

Methods: A literature search was done for the public sector's involvement in promoting healthy aging across several databases. The search was limited to US and Canadian programs, and included manuscripts written in English published before June of 2023. We analyzed for: (1) implementation of policy, if at all; (2) effectiveness of implemented interventions; and (3) interventions that led to improvement of the living standard and activities of daily life for the elderly.

Results: Aside from the CAPABLE program by the Center for Medicare and Medicaid Innovation and the programs of the Healthy Aging Research Network (HAN) enacted by the CDC, most of the research done was descriptive and ended with a call to action rather than implementing a model for public sector involvement. Studies as recently as 2022 have reiterated the same calls to action as papers from 15 years prior. Effectiveness of implemented interventions was reported only for the CAPABLE program.

Conclusions: To improve healthy aging for the elderly in the United States, we need to build and test implementable "models" where public sector and local communities work together. There needs to be a greater emphasis on healthy aging outcomes research on the public sector's involvement. Much of this stems from the need to enact policy changes or implementation at the local government level. Research should be measuring quality of life before and after initiation of the policy or program.

1: America Counts Staff. (2019, December 10). *By 2030, All Baby Boomers Will Be Age 65 or Older*. The United States Census Bureau. <https://www.census.gov/library/stories/2019/12/by-2030-all-baby-boomers-will-be-age-65-or-older.html>

C150 Student Presentation The Effect of SDOH on MyChart Utilization Amongst the Elderly

J. A. Gamboa,^{2,1} F. Gemechu,² J. w. Campbell,² *1. University of Southern California, Los Angeles, CA; 2. Geriatrics, MetroHealth Medical Center, Cleveland, OH.*

Background

Social Determinants of Health (SDOH) serve as a huge influence on the health & well-being of people, especially the elderly. In a continuously growing society that greatly depends on technology, it may seem that challenges towards the elderly have dwindled. Yet, this remains not true, especially in the case between the healthcare system, the elderly, and technology. This relationship is seen through the utilization of patient portal systems. The relationship between SDOH and the elderly's usage of patient portals has not been seen in the literature. Therefore, we explore this link through this study.

Methods

Data was collected through a survey. Participants of this survey were patients of geriatric care providers part of the MetroHealth System in Cleveland, Ohio. Participants were interviewed in person regarding their SDOH based on select questions from MetroHealth's questionnaire on SDOH. Along with this, participants were asked questions regarding their utilization of MyChart, MetroHealth's patient portal, and their confidence in navigating the platform.

Results

Data from 104 participants was collected all of whom had varying SDOH factors. Participants were grouped on whether they were classified as having high SDOH factors (high economic status, completion of high education, sufficient social interaction) or low SDOH factors (low economic status, no completion of high education, insufficient social interaction). Within these groups, a correlation test was calculated between SDOH factors and utilization of MyChart. A strong negative correlation was found between these two variables. Out of 60% of the participants who stated that they use MyChart, around 40% stated low levels of confidence in using the platform.

Discussion/Conclusions

Based on these results, lower SDOH is associated with lower patient portal utilization. Furthermore, even though a participant marked themselves as having high SDOH factors, their confidence in utilizing MyChart was slim, thus delegating the use of their account to someone else. Therefore, it is optimal to see the development of an "elderly friendly" software of MyChart and other patient portals for elderly patients to use effectively. In doing so, the confidence in patients' control over their health is improved. As a result, the healthcare system of the establishment is utilized to its full potential.

C151 Student Presentation

How are Contemporary Advocacy Approaches Implemented to Promote Healthy Aging

A. Chan,¹ J. Pandey,² H. M. Metcalfe.¹ 1. College of Medicine, Central Michigan University College of Medicine, Mount Pleasant, MI; 2. Pathology, Central Michigan University College of Medicine, Mount Pleasant, MI.

Advocacy plays a pivotal role in promoting healthy aging for the elderly by influencing policies, resources, and attitudes that directly impact their well-being. It takes diverse forms, depending on stakeholders and the type of interventions. To explore the link between healthy aging and advocacy for older adults and develop effective guidelines, we conducted a comprehensive literature search using terms like advocacy, reform, and healthy aging via CINAHL, Scopus, and PubMed. The search yielded 1652 publications. After rigorous screening and abstract review, 15 articles met the inclusion criteria, focusing on the United States, the years 2013-2023, and individuals aged 65 and above. Analysis revealed several emerging themes, with the most prevalent being the emphasis on age-friendly communities through qualitative interviewing of various stakeholders in seven articles (See Table 1). Our findings underscore the importance of involving diverse stakeholders in planning, developing, and implementing healthy aging programs. However, the limited range of advocacy approaches in the U.S. emphasizes the need for a concentrated effort to evaluate strategies that enhance outcomes in healthy aging programs.

Emerging Themes from Examination of 15 Papers on Current Healthy Aging Approaches in the United States Over the Last Decade

Theme/Method	First Author, Year	Notable Aspects	
Qualitative Interviewing: as a strategy for engagement, search, or advocacy	Altpeter, 2014	Conducted interviews with eight agencies that they identified as exemplary agencies in community collaborations. Four strategies identified: involving nontraditional partners, establishing new relationships within the healthcare sector, creating innovative structural systems and tools, and engaging in systematic work with vulnerable populations	
	Arhanat, 2019	Three cohorts were included: 14 community care providers, 35 graduate occupational therapy students, and 12 older adult participants	
	Greenfield, 2013	Conducted interviews with representatives from 10 lead agencies that implemented NORC programs in New Jersey	
	Greenfield, 2018	Identified the aspects of what Early Planning looks like for an AFCCI (Age-Friendly Community Initiative)	
	Greenfield, 2022	Interviewed 23 individuals. Four important roles that AFCCIs need to rely on were identified: good community partner, advocate, communications broker, and creator (RQ1) and that there are 3 forms of capital they need to obtain in order to have the greatest impact: human, social, and tangible (RQ2)	
	Cevallos, 2023	Conducted 8 interviews and 2 roundtable discussions that identified 3 strategies to support aging in place	
	Fields, 2022	Interviewed 24 participants with the aim of gaining insights into the incorporation of care partners within the Community Aging in Place, Advancing Better Living for Elders (CAPABLE) program	
	Methods and Goals of Age-Friendly Communities (AFCCs)	Luz, 2019	Summarized the development of AgeAlive, a program implemented at Michigan State University. Researchers outlined the process of creating an age-friendly community
		Greenfield, 2013	Explored how NORC (Naturally Occurring Retirement Community Support Service) programs can be most sustainable in their communities
		Greenfield, 2018	Identified aspects of what early planning looks like. Researchers emphasized that there is not one prototype for AFCCs, but instead are the unique creation of the communities they exist in and how much support the AFCCI is able to garner from key stakeholders
Greenfield, 2022		Identified roles and capital. Researchers identified common themes that help AFCCIs to succeed and suggest how they can better serve their communities through acquiring the necessary support and resources	
Digital Literacy/Technology Integration	Fields, 2022	Identified care partner roles. Researchers emphasized that providers should keep older adults' preferences and goals as the central focus while also allowing care partners the opportunity to be involved	
	Cevallos, 2023	Identified gaps and challenges in the creation of agile dwelling unit	
Identification of Disparities	Altpeter, 2014	Explored how collaborations between aging and health sectors could establish strategic partnerships to promote multisectoral system change. They examined efforts to maintain and expand evidence-based health programs	
	Pickering, 2022	Described the development of the CSRT program in Calhoun County, focusing on elder abuse prevention and how to connect at-risk individuals to appropriate resources	
	Lee, 2023	Identified the applicability and importance of future care planning with a group of older adults and assessed their responses	
Identification of Disparities	Arhanat, 2019	Identified barriers to ICT. They showed that aging-centered ICT training should not exclusively concentrate on digital literacy and skill acquisition	
	Dugan, 2022	Underscored gender, racial, and ethnic disparities in healthy aging by conducting state-level analyses	
Identification of Disparities	Arhanat, 2019	One of the strategies identified involves engaging in systematic work with vulnerable populations	

C152 Student Presentation, Encore Presentation

A Brief Summary of Laser Peripheral Iridotomy Trends

A. Maheshwari,¹ S. Sarrafpour,² R. Jayaram,² J. Liu,² C. Teng.² 1. Texas Tech University Health Sciences Center School of Medicine, Lubbock, TX; 2. Ophthalmology & Visual Science, Yale School of Medicine, New Haven, CT.

Background

Laser peripheral iridotomy (LPI) is an ophthalmological procedure used to create an aqueous humor outflow tract in incidences of angle closure. However, the benefit of prophylactic LPI on primary angle closure suspects (PACS) has recently been questioned. This study analyzes the LPI trends from 2000 to 2021 and offers explanations of potential drivers.

Methods

LPI procedures were queried from the Centers for Medicare and Medicaid Services Part B National Summary database using Current Procedural Terminology (CPT) code 66761. For each year, the number of allowed services, amount of allowed charges, and payment amount were collected. Annual inflation rates were obtained from the U.S. Bureau of Labor Statistics; population data was obtained from the World Bank.

Results

The number of LPIs performed increased from 64,935 LPIs in 2000 to 103,113 LPIs in 2008. Afterwards, LPIs were performed in fairly constant numbers ranging from 103,462 in 2009 to 96,418 in 2015. From 2016 to 2021, there was a dramatic change: 96,495 LPIs in 2016 to 62,376 in 2021, representing a 35% decrease. Over the entire time period, the US population increased. LPI reimbursement also initially increased, but soon decreased and remained fairly stable (unadjusted) from about 2011 to 2021.

The annual rate of inflation was always positive, ranging in value from 1.0% to 3.6%, and the total rate of cumulative inflation amounted to nearly 53%. The average allowed charge for CPT 66761 was \$311.71 in 2000 and increased to a peak amount of \$376.77 in 2007. The average allowed charge remained constant between the values of \$265.07 and \$272.83 in the time period from 2012 to 2018. The average allowed charge slightly increased to \$275.47, \$277.87, and \$280.33 in 2019, 2020, and 2021, respectively. LPIs were performed significantly less frequently from 2016 onwards perhaps due to influential studies, physician behavior alteration, and/or macroeconomic forces.

Conclusion

A quantitative analysis of the number of LPIs performed from 2000 to 2021 demonstrates a clear trend of decline in recent years. Potential drivers for the reduction in procedures include results of scientific trials such as EAGLE and ZAP, a corresponding shift in physician sentiment regarding the procedure's risk-benefit profile, and various fluctuations in economic forces such as inflation and reimbursement rates.

C153 Resident Presentation, Encore Presentation

Lower Insulin Use Among Older Asian and Pacific Islander Adults with Diabetes

C. Yin, J. Darbinian, J. C. Lo, A. Gopalan, H. Arzumanyan. Kaiser Permanente, Oakland, CA.

INTRODUCTION: US Asian and Pacific Islander (AAPI) adults have higher diabetes (DM) prevalence than non-Hispanic White (NHW) adults and may develop DM at an earlier age, but appear less likely to use insulin therapy. This study examines insulin use among older AAPI subgroups with DM who received DM pharmacotherapy.

METHODS: This cross-sectional observational study included adults of Kaiser Permanente Northern California aged 65-79y with DM prior to 2015, who were prescribed DM treatment and had weight assessed in 2019. Those with DM in their first year of membership (pre-existing DM) were excluded. Race/ethnicity was obtained from self-reported data. The primary outcome was receipt of insulin in 2019.

Covariates included age, sex, BMI, DM duration, HA1C, Charlson Comorbidity Index, and neighborhood deprivation index. Modified Poisson regression was used to study the association between race/ethnicity and insulin use, reporting RR with 95% CI.

RESULTS: Among 43,569 older adults with DM who received treatment, 48.2% were female, 24.3% AAPI, 46.0% NHW, 10.1% Black, 16.7% Hispanic, and 2.9% other/unknown race/ethnicity. AAPI were less likely to use insulin (22.3%) vs 35.7%, 36.2%, 33.9% for NHW, Black, and Hispanic adults ($p < 0.001$). Among AAPI, insulin use ranged from 17.7% for Southeast Asian, 18.8% for Chinese, 21.3% for South Asian, 24.6% for Filipino, 26.9% for NH/PI, and 29.0% for Japanese. In multivariable adjusted analyses, AAPI were less likely to use insulin (RR 0.72 [CI 0.69-0.75]) vs NHW adults and this trend was seen across AAPI subgroups, including South Asian (RR 0.67 [CI 0.60-0.75]), Chinese (RR 0.68 [CI 0.63-0.73]), NH/PI (RR 0.70 [CI 0.61-0.82]), Southeast Asian (RR 0.71 [CI 0.59-0.85]), Filipino (RR 0.74 [CI 0.71-0.78]), and Japanese (RR 0.87 [CI 0.77-0.98]). Among AAPI subgroups, Japanese were more likely than Chinese to use insulin (RR 1.17 [CI 1.01-1.35]).

CONCLUSIONS: This study found lower insulin use among older AAPI compared to NHW adults, with some variation among AAPI subgroups. The lower prevalence of insulin use among AAPI adults is consistent with past studies, and disaggregating AAPI subgroups revealed additional differences. Further research should examine factors contributing to the observed lower insulin use, including potential barriers, to optimize treatment and outcomes for older adults with DM.

C154 Resident Presentation

Development of a Resource Guide for Caregivers of Spanish-speaking Patients with Dementia

T. Moreira Protasio,¹ K. Mary,¹ I. Mino,² H. Lum.² *1. Internal Medicine, University of Colorado System, Denver, CO; 2. University of Colorado System, Denver, CO.*

Background: Hispanic caregivers experience more high-burden caregiving roles. Most community-based dementia care resources in Denver are offered in English only. This project aimed to develop a culturally and linguistically appropriate dementia resource guide for the Hispanic community. Secondary goals were to identify common barriers Hispanic caregivers face when accessing community resources and strategies to connect them with resources.

Methods: We contacted local agencies that service patients with dementia in the Denver Metro area and included in the guide those who offered services in Spanish. We engaged caregivers of UHealth Seniors Clinic Spanish-speaking patients with dementia to answer a questionnaire and participate in semi-structured interviews. Questions explored the guide's ease of use, content, and cultural appropriateness, as well as general experiences as caregivers and accessing resources. Currently we are adjusting the guide based on feedback received and lessons learned.

Results: We created a guide in English and Spanish that includes resources on emergency care alternatives, transportation, local home care services, adult day programs, low-cost activities for persons with dementia, agencies for senior placement, dementia caregiving education, and caregiver self-care. We interviewed 6 female caregivers of family members with dementia, born from 1947 to 1993. All caregivers said the guide would be helpful in taking care of loved ones and they would recommend the guide to others. Most suggested adding resource-related cost information in the guide. Caregivers described never being offered community resources with Spanish-speaking staff before. Some had bad experiences when the supporting staff did not speak Spanish and one caregiver had received a guide before, but it was overwhelming and hard to navigate. They shared about caregiver burden, not having help, changed quality of life, gender roles, and sense of duty.

Conclusions: We created a local guide that focuses on Spanish-language community resources for caregivers of patients with dementia. Most caregivers in this project had never been offered community resources and shared about their struggles when accessing resources in the past as well as caregiver burden. We believe this guide can help connect Hispanic caregivers with community resources and reduce caregiver burden.

C155 Student Presentation

Predictors of outcomes in the medical management of elderly patients with intracerebral hemorrhage

D. Vasa,¹ C. P. Rossitto,¹ J. Bose,² R. Soriano,³ C. P. Kellner.²

1. Icahn School of Medicine at Mount Sinai, New York, NY;

2. Neurosurgery, Icahn School of Medicine at Mount Sinai, New York, NY;

3. Geriatrics, Icahn School of Medicine at Mount Sinai, New York, NY.

Background

Intracerebral hemorrhage (ICH) is the second most common form of stroke and is associated with high morbidity and mortality. Incidence of ICH increases with age; however, it is not known whether factors associated with outcomes differ by age for older adults. Therefore, we aimed to investigate predictors of length of stay (LOS) and 30-day mortality after the medical management of non-elderly (NE, age <65), early elderly (EE, age 65-80), and advanced elderly (AE, age >80) ICH patients.

Methods

A single-center retrospective study was conducted to identify all patients with ICH who were medically managed in 2023. Patients who underwent hematoma evacuation were excluded. Clinical measures including comorbidities, LOS, and mortality were collected. Hematoma volumes were calculated using the ABC/2 method on axial head CT scans closest to the time of bleed. Univariate models were built to determine factors associated with LOS, ICU LOS, and 30-day mortality.

Results

Of 59 patients with ICH [mean (SD) age: 67.1 (4.3) years], 20% identified as White, 22% as Black, 15% as Asian, 31% as Hispanic, and 12% as Other/Unknown. 26 patients were NE [44%; 51.6 (4.4) years], 17 patients were EE [29%; 72.9 (2.1) years], and 16 patients were AE [27%; 86.1 (2.4) years]. Compared to NE patients, EE (OR=3.85; 95% CI: 2.41-5.29) and AE patients (OR=5.50; 95% CI: 4.05-6.95) were more likely to have a history of atrial fibrillation ($\chi^2=6.32$; $p=0.042$). ANOVA and post hoc Turkey HSD showed that EE patients had greater mean hematoma volumes compared to NE (28.1 vs 12.1 mL; $p=0.037$). Further, EE patients had a longer LOS compared to AE patients (20.4 vs 10.3 days; $p=0.048$). ICU LOS ($p=0.162$) and 30-day mortality ($\chi^2=2.17$; $p=0.338$) were similar between all groups. Hematoma volumes were not associated with LOS or 30-day mortality for any age group.

Conclusions

EE patients (age 65-80) had greater LOS and greater hematoma volumes compared to AE patients (age >80) and NE patients (age <65), respectively. These findings highlight the importance of medical optimization for elderly ICH patients. Furthermore, understanding factors associated with LOS and mortality may provide predictive value for a patient's hospital course and guide clinician expectations of recovery.

C156 Student Presentation

Older Americans' Differential Mental Health Diagnoses by Race/Ethnicity in Community-Based Programs

C. Kricorian. *Research, For Good Measure, Simi Valley, CA, CA.*

Background

Treatment access and experiences may differ by race/ethnicity among older Americans using community-based mental health services. Examining potential variations in psychiatric diagnosis rates can help identify health disparities among diverse populations.

Methods

Mental Health Client-Level Data (MH-CLD) is collected by the Substance Abuse and Mental Health Services Administration (SAMHSA), which reports on patients receiving mental health services provided or funded through state mental health agencies. For the year 2021, SAMHSA reported data from N=6.5 million patients receiving mental health services. The vast majority of these patients, N=6.4 million, were served in community-based programs. Data from these patients 65 years or older, accounting for 5.8% of total individuals treated (N=349,693), were compared among racial/ethnic groups.

Results

Non-Hispanic Blacks were significantly less likely to have a diagnosis of depressive disorder (26.7%) compared to Non-Hispanic Whites (32.6%) and Hispanics (35.2%; all comparisons $p < .05$). Blacks were also significantly less likely to have an anxiety disorder (10.2%, vs. 18.5% for both Hispanics and Whites; $p < .05$) and trauma disorder (8.2%, vs. 11.2% Hispanics and 11.0% Whites, $p < .05$). Remarkably, schizophrenia or another psychotic disorder was approximately twice as common among Blacks (36.1%) as compared to Hispanics or Whites (15.5% and 19.3% respectively; all comparisons $p < .05$). Hispanics were significantly more likely than other groups to be diagnosed with dementia (5.9%, vs 3.0% Blacks and 3.5% Whites; $p < .05$), while Whites were more likely to have diagnoses of bipolar (12.2%, vs 7.7% Hispanics and 7.5% Blacks; $p < .05$) and personality disorders (3.6%, vs 1.9% Hispanics and 2.2% Blacks; $p < .05$).

Conclusion

Mental health diagnoses among older patients treated in state-funded community mental health programs vary widely by race/ethnicity. These findings may be due to a combination of treatment access and diagnostic disparities among racial/ethnic groups, and have implications for developing culturally tailored treatment approaches to help address unique patient backgrounds. Future research should further examine underlying reasons for these substantial racial/ethnic differences.

**C157 Student Presentation, Encore Presentation
Using Digital Passive Metrics to Assess the Impact of Sedentary Activity and Sleep on Processing Speed amongst Hispanics/Latinos**

S. Nakahira,⁵ M. P. Lopez,² A. Demos,¹ I. Cuevas,² A. Dubey,² R. Bentancourt,² E. Churchill,² L. Scandalis,² L. Gallo,³ E. E. Sundermann,² D. Galasko,² G. Talavera,³ M. Marquine,⁴ R. Moore.² 1. *University of Illinois Chicago, Chicago, IL*; 2. *University of California San Diego, La Jolla, CA*; 3. *San Diego State University, San Diego, CA*; 4. *Duke Medicine, Durham, NC*; 5. *University of Hawai'i at Manoa John A Burns School of Medicine, Honolulu, HI*.

Background

Hispanics/Latinos/as/x are the largest ethnic or racial minority group in the U.S., yet remain widely underrepresented in research. Digital biomarkers can provide valuable insights into the relationship between lifestyle factors and cognition. In this study, we explored the relationship between a digital biomarker of processing speed, derived from smartphone typing speed, with sedentary activity and sleep amongst middle-aged and older Latinos.

Methods

Participants included Hispanic/Latino adults aged 50-70 years old, living in southern California and enrolled in the SALUD-Tech study. Participants replaced their smartphone keyboards with the Keywise AI research keyboard and wore Fitbit watches that recorded sleep and sedentary activity. Digital data collection occurred for 30 days. A mixed effects model was applied to analyze typing sessions across the day for each participant.

Results

Results showed an expected diurnal pattern with the keystroke data, demonstrating slower typing in the morning and evening relative

to the afternoon. High sedentary days were associated with a more pronounced diurnal pattern (i.e., more evening slowing) relative to more active days. Further, results revealed significant interactions with sleep, such that on more active days, the amount of sleep participants received the night prior had a lesser impact on the degree of typing slowing. Specifically, when participants slept less the night before more sedentary days, typing slowing from day to evening was more pronounced relative to slowing following longer nights of sleep.

Conclusions

In this study, we demonstrated that when middle-aged and older Latinos are more sedentary, they are more vulnerable to processing speed slowing throughout the day, particularly on days they sleep less. These findings reveal the ways that subtle changes of processing speed temporarily linked to sedentary behavior and sleep variation can be detected utilizing digital data assessment methods, potentially enabling the short term assessment of outcomes for interventions to modify these behaviors.

**C158 Student Presentation
Examining the Effect of Sleep-Wake Disturbances on Immediate and Delayed Recall in Non-Demented Older Adults**

M. Cha, Z. Yang, E. Burris, M. Espiritu, T. Goldberg, D. Davangere, N. A. Kerner. *New York State Psychiatric Institute, New York, NY*.

Background:

Chronic and persistent sleep-wake disturbances with cognitive and daily functioning decline are a significant public health concern in older adults. Estimates of disturbance suggest that more than 50% of older adults reported sleep and wakefulness impairment, negatively affecting daily activities and quality of life. The discrepancies between subjective and objective measures of sleep were found in enormous studies. Therefore, an accurate measure of rest/activity rhythms with actigraphy becomes the only trustworthy method. In the study, we assessed the direct relationship between the frequency of impaired daytime cognitive functioning directly related to sleep and wakefulness disturbances, which is the direct cognitive outcome of sleep and wakefulness disturbances severe enough to impair daily functioning and quality of life. In addition, there is a high prevalence of obstructive sleep apnea (OSA) in the older adult population. We explored how OSA negatively affects cognition.

Methods:

Adults aged >55 years who met the ADNI criteria for early mild cognitive impairment (EMCI), late MCI (LMCI), and cognitively normal (CN) were included. We excluded participants with active depression by the DSM-V criteria and a geriatric depression rating scale score greater than 5. We conducted the study with the PROMIS Sleep-related Impairment (SRI). Linear regression models were fit to SRI and immediate recall and delayed recall outcomes and their interaction as predictors. We assessed the probability of having OSA using the STOP-Bang score of 4 or higher.

Results:

105 participants were recruited, with a mean age of 70.0 ± 7.9, 55.2% female, and 87.6% non-Hispanic. The results revealed no differences among CN, EMCI, and LMCI groups, and 22% of participants had a high probability of OSA. Still, the groups had no significant difference. The correlations between SRI and immediate and delayed recalls were significant ($r = -0.304$, $p = 0.002$; $r = -0.319$, $p < 0.001$). In addition, the correlations between SRI and cognitive status were significant ($r = 0.393$, $p < 0.001$).

Conclusions:

The results suggested that assessing the direct relationships between daytime cognitive function and sleep and wakefulness disturbances has important clinical implications, which limits the bias of subjective sleep reports and discrepancies associated with objective measures of cognition.

C159 Student Presentation**A Comparison of Diagnostic Criteria for Mild Cognitive Impairment in the Prediction of White Matter Hyperintensities in Aging Veterans**A. Zaratán,¹ M. Ly,³ A. Matchanova,^{2,3} L. Delano-Wood.^{2,3}*1. California Northstate University College of Medicine, Elk Grove, CA; 2. University of California San Diego, La Jolla, CA; 3. VA San Diego Healthcare System, San Diego, CA.*

Background: Mild cognitive impairment (MCI), a common clinical condition in aging, represents a critical phase substantially raising risk for progression to dementia such as Alzheimer's disease (AD). Neuropsychological criteria was shown to more accurately predict this transition in older adults compared to typical criteria and have stronger associations with AD biomarkers. Few studies have investigated how these criteria may relate to neuroimaging-based biomarkers. We compared three MCI diagnostic schemes: 1) neuropsychological criteria; 2) Alzheimer's Disease Neuroimaging Initiative (ADNI) criteria; and 3) typical MCI criteria by their associations with neuroimaging-based biomarkers in a sample of nondemented Vietnam-era Veterans.

Methods: 228 Veterans (mean age=69.65) were evaluated for MCI according to 1) ADNI criteria: subjective memory concern, WMS-R Logical Memory below cut-offs, and Clinical Dementia Rating Global=0.5; 2) Neuropsychological criteria: >1 standard deviation (SD) below norms on two tests within any cognitive domain, or one test across domains; and 3) Typical criteria: subjective memory concern, >1.5 SD below norms on any 1 test score. Neuroimaging metrics included log-transformed total white matter hyperintensity volume (log-WMH) from FLAIR MRI sequences, hippocampal volume, and cortical thickness in temporal regions calculated by Freesurfer software from T1 scans. Linear regression models evaluated relationships between MCI diagnosis and neuroimaging measures, adjusting for age, education, and history of hypertension.

Results: MCI diagnosis by neuropsychological criteria was associated with higher log-WMH ($B=0.43$, $SE=0.18$, $p=.02$). MCI diagnosis by ADNI or typical criteria was not associated with log-WMH ($p>.05$). None of the criteria were associated with hippocampal volume or temporal cortical thickness.

Conclusions: When compared to two widely used diagnostic schemes for MCI, neuropsychological criteria are more strongly associated with the presence of cerebrovascular disease as evidenced by WMH burden. MCI diagnostics would benefit from incorporating comprehensive neuropsychological methods that more effectively predict neurological changes known to increase risk for dementia in at-risk older adults.

C160 Student Presentation**Neural correlates of anxiety in the 3xTg Alzheimer's disease mouse model**L. A. Helfer,¹ I. Reyes,² A. V. Masurkar.² *1. The University of Arizona College of Medicine Tucson, Tucson, AZ; 2. Neurology, New York University Grossman School of Medicine, New York, NY.*

Background: Anxiety is a common symptom in early Alzheimer's disease (AD), associating with faster progression. Yet, the localization and mechanism is unclear. In the non-AD context, the ventral CA1 (vCA1) region of hippocampus is linked to fear and anxiety, with prior work suggesting that superficial (sPN) and deep (dPN) pyramidal neuron layers suppress and promote the phenotype, respectively, via impact on prefrontal cortex (PFC). We asked whether anxiety in 3xTg-AD mice correlates with a differential change in these neuronal subpopulation activities.

Methods: Female 3xTg-AD (n=17) and respective Wild Type (WT) (n=10) at 9-12 months old underwent the Open Field Test (OFT) of anxiety for 15 minutes. Mice were anesthetized and perfused with 4% paraformaldehyde 90m post-OFT. Brains were extracted and sectioned for c-fos immunohistochemistry to compare vCA1 sPN

and dPN activity during the OFT. Sections were imaged via confocal microscopy. C-fos positive cells were counted via ImageJ and averaged by genotype and sublayer.

Results: When comparing activity between vCA1 sPNs across genotype, there was no difference ($p = 0.72$). However, the dPN layer showed a more than 2-fold increase in c-fos positive cells in 3xTg-AD vs. WT mice ($p = 0.0038$). When correlating c-fos readouts of activity with OFT center preference, which is inversely proportional to anxiety, only the 3xTg-AD dPN layer showed a statistically significant correlation ($m = -0.3499$, $R^2 = 0.4008$, $p = 0.0064$).

Conclusion: These results suggest that anxiety in the 3xTg-AD model is driven by an increase in the activity of vCA1 dPNs. This also suggests that AD induces layer-specific changes in circuit function that impact behavior. Future work should focus on the mechanisms by which activity is increased in this subpopulation, and impact on areas to which these neurons project, including PFC and amygdala.

C161 Student Presentation**Post-Intervention Focus Groups: Piano Improvisation to Improve Cognition**R. Zhang,¹ J. K. Johnson,² J. A. Bugos,³ K. S. Johnson,² B. Colado,² H. M. Shiff,^{4,1} T. A. Allison.¹ *1. School of Medicine, University of California San Francisco, San Francisco, CA; 2. Nursing, University of California San Francisco, San Francisco, CA; 3. University of South Florida, Tampa, FL; 4. New York Medical College, Valhalla, NY.*

Background: Music improvisation, defined as the spontaneous generation of musical melodies/rhythms, shows promise among non-pharmacological interventions for Mild Cognitive Impairment (MCI) for improving self-regulation.

Methods: We conducted focus groups as part of a feasibility and acceptability pilot RCT to examine the effects of a piano improvisation on self-regulation. The study involved the development and testing of a 12-week group piano improvisation training intervention compared to a group active music listening control. Participants were aged 60+ years with or without MCI. Focus groups were one of several methods used to assess feasibility and acceptability. Focus groups were led by a qualitative researcher, and real-time notes were entered on a template, then transcribed into a matrix. A second researcher entered missing data and direct quotes and identified discrepancies, which were reconciled by discussion. Salient themes were identified through content analysis.

Results: Participants included 17 women and 2 men, with 58% of the participants identifying as people of color. Overall, piano improvisation participants found the intervention feasible and acceptable, with 8 participants stating that they "wanted to learn the piano" and 5 participants stating that the piano was a "bucket list" item. They identified modifiable issues with intervention materials. 9 participants wanted the intervention to be extended to 16 weeks. Music listening participants also found the active control feasible and acceptable. Some found the technology confusing, with 3 participants stating that the computer tablets provided were unhelpful. However, 5 stated that they appreciated the group settings/discussions, and that "input from other classmates was a wonderful experience". Both groups reported that home exercises were integrated into daily activities, and the duration of the sessions appropriate. Several participants reported additional benefits including improvements in self-regulation, arthritis pain, memory/learning, and social well-being.

Conclusion: Focus group participants in both arms of the study overwhelmingly found the interventions feasible and acceptable.

C162 Student Presentation
Mental Health Impacts and Beliefs About Climate Change
Among Older Americans

C. Kricorian, K. Turner. *Research, For Good Measure, Simi Valley, CA, CA.*

Background

Climate change refers to long-term variations in temperature, precipitation, wind patterns and other weather conditions that can have deleterious impact on humans and natural resources. The negative mental health effects of climate change on young people have been well-documented, but little research has focused on the unique experiences and beliefs of older individuals.

Methods

An English-language survey about climate change beliefs and mental health effects was developed based on a literature review and was distributed electronically to a representative sample of US residents. Respondents were invited by email and a total of N=2,000 US adults aged 18+ completed the survey, including N=348 US adults aged 65+. Survey respondents included a broad range of races, ethnic backgrounds, income levels and geographic origins.

Results

Among Americans aged 65+ who were surveyed, 18.1% claimed that concerns about climate change had a negative effect on their mental health. Those who reported negative mental health impact of climate change had significantly greater familiarity with the topic compared to those who did not report a negative mental health impact ($p < .005$). Among those who reported no negative mental health impact of climate change, only half (54%) stated they believed climate change was real, 44.2% said that climate change is something almost all scientists agree about, 28.4% said climate change was exaggerated, and a small, but significant minority (9.8%) believed that climate change is a hoax. Those reporting negative mental health effects were significantly more likely to believe that climate change is caused by human activities (84.1% vs 46.3%, $p < .001$) and significantly less likely to believe it is caused by natural environmental changes (7.9% vs 36.5%, $p < .001$).

Conclusion

Concerns about climate change appear to have negative mental health effects on many older Americans. In addition, those without stated negative mental health impact are often misinformed about basic climate change facts. Misinformation, in this instance, may serve to protect mental health at the cost of an accurate understanding of climate change. This misinformation may also affect other related activities, including pro-environmental behaviors. Future research should explore how older Americans can integrate accurate climate change knowledge with positive mental health.

C163 Student Presentation, Encore Presentation
Asymmetry in the Amygdala along the Alzheimer's Disease Continuum

S. H. Ghebreegzabheir,¹ E. Dayan.² *1. Medicine, Washington State University, Pullman, WA; 2. Univ of North Carolina, Chapel Hill, NC.*

Background

Asymmetric atrophy in the amygdala among individuals with AD has been reported in multiple studies. However, the extent to which amygdalar asymmetry changes along the AD continuum and its association with cognitive and behavioral (neuropsychiatric) symptoms remain unclear.

Design/Methods

We analyzed neuroimaging and phenotypic data from a total of 564 participants (AD: n=98; MCI: n=289, CN: n=177). Regional volumetric measures, calculated from structural magnetic resonance imaging (MRI), as well as the Neuropsychiatric Inventory Questionnaire (NPI-Q) and Clinical Dementia Rating Scale Sum of Boxes (CDR-SB)

scores, were analyzed. Asymmetry in the amygdala was quantified and compared between groups. Associations between amygdalar asymmetry, NPI-Q (total scores, subscales capturing agitation/aggregation, mood, and frontal symptoms), and CDR-SB scores were also compared between groups. A comparison with hippocampal asymmetry and its association with cognitive and behavioral symptoms was additionally performed.

Results

A significant difference in the asymmetry of the amygdala was found among the three groups when adjusting for age, gender, and intracranial volume. While asymmetry became gradually more pronounced when comparing the groups, post-hoc comparisons revealed significant differences, primarily between the AD and CN groups. Similar group differences in asymmetry were not observed in the hippocampus. Asymmetry in the amygdala was significantly correlated with disinhibition but not with any other individual or grouped neuropsychiatric symptoms or CDR-SB scores. In contrast, hippocampal asymmetry significantly correlated with CDR-SB scores but not with individual or grouped neuropsychiatric symptoms.

Conclusions

Asymmetry in the amygdala changes along the AD continuum and appears to be associated with neuropsychiatric symptoms, specifically disinhibition.

C164 Student Presentation
Characterizing the Relationship between Meta-Temporal Cerebral Blood Flow and Functional Abilities in Older Adults with Normal Cognition and Mild Cognitive Impairment

M. Trinh,^{1,2} L. Edwards,² K. Bangen.² *1. John A. Burns School of Medicine, University of Hawai'i at Manoa, Honolulu, HI; 2. University of California San Diego, La Jolla, CA.*

Background

Regional reductions in CBF, detected by arterial spin labeling (ASL) MRI is thought to be an early pathological change in Alzheimer's Disease (AD) and have been associated with cognitive decline. Few studies examined the relationship between CBF and everyday function. This study aims to characterize the relationship between baseline meta-temporal CBF and functional abilities among older adults with normal cognition (CN) and mild cognitive impairment (MCI).

Methods

Data used in this study were obtained from the Alzheimer's Disease Neuroimaging Initiative (ADNI). The Functional Activities Questionnaire (FAQ) was used to quantify instrumental activities of daily living (IADLs), with scores greater than 0 indicating impairment. We included ADNI CN and MCI participants with 1) baseline ASL MRI data and 2) FAQ score at baseline AND at the 12-month follow-up. Meta-temporal CBF was calculated from a weighted mean of bilateral estimates from the amygdala, entorhinal cortex, fusiform gyrus, and inferior and middle temporal gyrus. Linear regression models examined cross-sectional associations of CBF and FAQ score adjusting for age, sex, diagnosis of MCI vs. CN, pulse pressure, PET amyloid in centiloids, and PET meta-temporal tau. Linear mixed models examined longitudinal associations of baseline CBF and rate of change in FAQ scores adjusting for the same covariates.

Results

Overall, 84 patients with a baseline FAQ score were included in cross-sectional models, and 64 patients with FAQ scores at baseline and at the 12-month follow-up were included in longitudinal models. At baseline, participants with FAQ scores greater than 0 had a significant reduction in meta-temporal CBF compared to those with FAQ scores of 0 ($p = 0.033$). Those with lower baseline meta-temporal CBF showed a trend of a faster rate of IADL decline at the 12-month follow-up, but this was not significant ($p = 0.083$).

Conclusion

At baseline, there is a significant relationship between lower meta-temporal CBF and more functional difficulties. We did not find a significant association between baseline meta-temporal CBF and rate of change in functional abilities after 12 months. More research with longer follow up periods is needed to ascertain how ASL MRI may be used in predicting future functional decline.

C165 Student Presentation

Clinical Correlation of Vitamin B12 levels and Tau Imaging.

S. Sunil, S. Alexis, M. Nair, A. Nair. *Boston Neuropsychiatry, Boston, MA.*

Background:

Tau-PET Scan measures brain tau deposition. Vitamin B12 (Cobalamin) is related to cognitive impairment. We analyzed the correlation of B12 levels to tau-PET imaging in a memory clinic.

Hypothesis:

Tau-PET positivity correlates with lower B12 values in the clinic patients.

Objectives:

To assess the correlation of tau-PET positivity to B12 levels in memory clinic patients.

To evaluate a B12 level cut-off that translates optimally to tau-PET positivity.

Method:

Retrospective observational chart review study of patients attending a memory clinic in Boston, MA, with B12 levels and tau-PET scan included for analysis. No stratification based on initial or final diagnosis, severity of cognitive impairment, or tracer used. Baseline B12 levels and a binary PET scan result were analyzed with covariates age, sex and race.

Analysis done on 'R' v. 2.4.0. Pearson correlation estimated B12 levels to tau-PET status. Kruskal Wallis/Chi square tests for relationship of age, sex, gender and education with B12 levels and tau-PET status. ROC analyses and sensitivity/specificity were obtained.

Results:

Tau PET positivity did not correlate significantly with B12 levels ($r = 0.034$, 95%CI -0.44 to 0.493 , $p = 0.89$).

Conclusion:

Tau PET does not correlate with B12 levels, possibly due to a ceiling effect in the mild impairment subjects.

C166 Resident Presentation

Evaluating Cognitive Training Apps for Older Adults: A Natural Language Processing Approach

M. Rajashekara Swamy,¹ P. Ravikirithi.² *1. Family Medicine, Brown University, Providence, RI; 2. University of Massachusetts System, Lowell, MA.*

Background: Proliferation of cognitive apps in smartphones and ongoing exploration of Computerized Cognitive Training (CCT) necessitate meticulous scrutiny.¹⁻⁴ This study categorizes Apple app store apps aiding clinicians, researchers, and older adults in precise app selection for cognitive enhancement.

Methods: A Python script was formulated to identify keywords like "cognitive training" to collect 371 unique apps. Applying explicit keywords for older adults narrowed the selection to 49 apps. Analysis included training types, sentiment, and keywords indicating aptness for older adults.

Results: Of 371 apps, 13% (49) targeted older adults, with 86% free; 49% subscription free. Categories included memory (30.6%) and language (26.5%). 51% were multi-lingual, 44.9% included cognitive training keywords. Domain specific analysis revealed focus areas. Only 16% were medically reviewed but sentiment analysis indicated 94.5% suitability for older adults.

Conclusions: Accessible, yet only 13% of CCT apps explicitly cater to older adults, emphasizing a crucial gap. Our recommendations for app selection offer practical guidance, yet only 4.8% met all criteria as of November 2023, necessitating continued development. Developer gaps include limited testing, inadequate collaboration with geriatricians, and low medical reviews. Lack of diversity, gender-inclusive design, and multilingual options pose challenges, demanding improvements for equitable access. Collaboration, inclusivity, and ongoing refinement are crucial for maximizing CCT's potential in preserving cognitive health among older adults.

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C167 Student Presentation

Implementation of a Multimodal Fall Prevention Intervention Initiated within the Emergency Department

C. M. Small,¹ C. Kelley,² K. Davenport,³ E. Roberts,² G. Anton,⁴ J. Busby-Whitehead,² J. Niznik.^{2,5} *1. The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 2. Division of Geriatric Medicine and Center for Aging and Health, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 3. Department of Emergency Medicine, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC; 4. Department of Pharmacy, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 5. Division of Pharmaceutical Outcomes and Policy, The University of North Carolina at Chapel Hill Eshelman School of Pharmacy, Chapel Hill, NC.*

Background: Recent studies have identified the emergency department (ED) as a promising setting for implementing multimodal fall prevention interventions.

Methods: A quality improvement intervention was implemented at two North Carolina Hospitals among adults age 65+ presenting to the ED with a chief complaint of fall. Patients received a pharmacy, physical therapy (PT), and/or occupational therapy (OT) consultation(s) to address risk factors for future falls. We conducted a retrospective evaluation of electronic medical records over 3 months (May-July 2023) to determine feasibility.

Results: Among 479 patients (514 visits) presenting to the ED with a chief complaint of fall, 32.7% (n=168) received the intervention. Most were female (66.3%) and non-Latino/a White (76.1%). The median age was 80 and most were discharged (66.3%) from the ED. Among individuals who received intervention, most received PT and OT evaluations (94.6% and 93.5%) and fewer received a pharmacist consultation (16.7%). The most common problems identified in PT evaluations were "decreased mobility" and "impaired balance" and for OT evaluations most frequent problems were "fall risk" and "impaired ADLs". In-home follow-up care was the most common recommendation from PT and OT. The median number of high-risk medications identified by pharmacy was two (most frequently anticoagulants and antidepressants); the most common recommendation was to "discuss risks and benefits with a primary care physician".

Conclusions: The ED may be an opportune setting for addressing mobility and medication-related risks for falls in older adults. Further research is needed to identify barriers to increase uptake of this comprehensive screening to reduce falls as part of existing workflows.

C168 Student Presentation

Social Isolation and Loneliness Screening in an Outpatient Geriatric Clinic: Preliminary Findings

V. Shah,¹ L. Rao,¹ N. Amjad,³ J. Burnett,² R. J. Flores.³ *1. The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 2. Department of Internal Medicine, The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX; 3. Geriatric medicine, The University of Texas Health Science Center at Houston John P and Katherine G McGovern Medical School, Houston, TX.*

Introduction: Social isolation and loneliness (SIL) are common in later-life and negatively affect health and survival. SIL screening in healthcare settings, including outpatient geriatric clinics, is low and represents critically missed opportunities to address these issues. Findings from a small medical student-led SIL screening and response quality improvement study, conducted in an outpatient geriatric clinic, are presented below. **Methods:** 51 patients, >65 years of age were screened for SIL using the Duke Social Support Index (DSSI-11) and the 3-item UCLA loneliness scale. Chart reviews were performed to obtain patient demographics, comorbidities, activities of daily living (ADLs) performance, and depression. All screened patients received a pamphlet with local and national resources for social connection. Analyses focused on the number of patients targeted and screened, SIL prevalence and associated comorbidities. **Results:** Using the 3-item UCLA score of > 4, 41.1% reported some loneliness. On average, patients who were lonely had a statistically significant decrease in their DSSI score (Mean=27, SD=3.67) than patients who were not lonely (Mean=29, SD=2.82). Screening required an average of 9 minutes. Screening receptivity improved when positive terms such as “social connectedness” were used. Social support, in the forms of family, friends, church, and community, were associated with lower loneliness scores. **Conclusion:** SIL screening in an outpatient geriatric clinic is time efficient and identifies lonely and isolated older adults. Positive phrasing is important and indicators of SIL may be useful clinical markers of patient loneliness and needed intervention. Further studies are needed to inform SIL screening and intervention best practices and outcomes across clinical settings.

C169 Student Presentation

Strategies for Reduced Length of Stay and Delirium in Hip Fracture Repair: The Role of Geriatrician Involvement

G. Flindt,¹ T. Powell,³ V. Mathesh,¹ M. Sorich,³ S. Wingfield.² *1. The University of Texas Southwestern Medical Center Medical School, Dallas, TX; 2. Geriatric Medicine, The University of Texas Southwestern Medical Center, Dallas, TX; 3. Orthopaedic Surgery, The University of Texas Southwestern Medical Center, Dallas, TX.*

Background: Prolonged length of stay (LOS) after surgery increases the cost of hip-fracture (HF) repairs and can result in other complications. Older adults are susceptible to delirium (DEL), with 35-65% experiencing DEL after HF repair. DEL is associated with poor recovery and increased LOS. Acute Care for the Elderly units (ACE) and orthogeriatric programs are being created to better treat DEL and other geriatric syndromes.

Over 2 years, the average LOS for patients receiving HF repair at our institution increased by 38%, from 7.6 to 10.5 days. Data was collected for a QI project to reduce LOS by identifying factors associated with DEL and prolonged LOS as targets for intervention.

Methods: A retrospective review of patients assigned to a HF repair service at an urban level IV academic trauma center over a

2-year period. Patients were grouped by DEL incidence (DEL(+) or DEL(-)). Race, age, ethnicity, LOS, comorbidities, and geriatrician or ACE involvement were collected. The t-test or X² test were used to evaluate significance, indicated by P<0.05.

Results: 100 patients were included with 66% women, 29% DEL (+), and an average age of 76.8±12 years. Factors associated with DEL(+) include older age (p<0.01) and diagnosis of dementia (p<0.0001). No significant difference in LOS was observed for DEL(+) (8.6±5 days) and DEL(-) patients (7.6±5 days). A high percentage of both DEL(+) (100%) and DEL (-) (83%) patients had geriatrician or ACE involvement. Geriatrician involvement was associated (p<0.05) with a decrease in average LOS (from 12.6±8.2 to 7.8±5.7 days) for patients over 80 (n=48).

Conclusions: DEL is common after HF repair, with 29% of our patients developing DEL. There was no significant association between DEL status and LOS, which is surprising. Many patients had either geriatrician or ACE involvement, and it is possible that geriatric expertise mitigated the negative downstream consequences of DEL. Geriatrician involvement was associated with shorter LOS for patients over 80. To develop appropriate QI interventions, more investigation is needed into the cause of increased LOS at our institution.

C170 Student Presentation

Feasibility of a High School Volunteer in Improving Patient Portal Access to Electronic Health Record for Older Adults

J. Wun,¹ A. K. Chun.² *1. Stuyvesant High School, New York, NY; 2. Department of Geriatrics and Palliative Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.*

Background: Despite older adults’ interest in reviewing their electronic patient portal (PP via MyChart), many face technological difficulties.¹ To enhance digital access for older adults, we evaluated the feasibility for high school student volunteers to assist older adults with PP access to electronic health records (EHR in EPIC).

Methods: A high school volunteer prospectively approached patients without activated PP access during their geriatrics appointments in East Harlem, NYC. For those who agreed to participate, the volunteer assisted with the activation process and provided education on account use. The number of patients approached, the number who agreed to activation, and the demographics of all patients were collected. Patients who participated were asked to rate their overall experience on a scale of 0-10 with 10 being excellent.

Results: Over the course of 72 volunteer hours, 34 older adults were offered assistance with PP enrollment. Twenty (59%) agreed to activation. Their mean age was 80.6 years (median: 83 years). 80% were female. 75% were English speakers. 30% White, 20% Black, 25% Hispanic, and 25% Other. Their average overall experience was rated 9.7/10. The majority (75%) will access their PP via a mobile app. 80% foresee themselves using the PP now that it is activated, while the remainder said “maybe”, citing barriers such as limited accessibility due to internet access and potential navigation difficulties. The mean age of the 41% who declined activation was 80.4 years (median: 79.5 years). 86% were female. 0% White, 36% Black, 57% Hispanic/Latino and 7% Other. Reasons for declining included: adversity to technology, language barriers, physical and cognitive limitations, and lack of technology access.

Conclusions: Using high school student volunteers is a viable approach to increasing PP access for older adults during their clinic visits. Participation and satisfaction among older adults were high. Although not the intention of the study, it is notable that while PPs were offered to a high number of Black and Hispanic patients, many declined access, a previously identified disparity that warrants future exploration.

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C171 Student Presentation**Enhancing Older Veterans' Care: Insights from Medication Reviews and Deprescribing Interventions**

H. Omuya,¹ L. Welch,² T. Seys Ranola,² M. McConnell,² J. Malta,¹ B. Chewning.¹ *1. School of Pharmacy, University of Wisconsin System, Madison, WI; 2. William S. Middleton Memorial Veterans Hospital, Madison, WI.*

Background: Patient experience is a critical indicator of quality of care that encompasses aspects of effective communication, respect, dignity, and emotional support. However, qualitative studies exploring the experiences of older adults after deprescribing interventions are sparse, highlighting a gap in knowledge. This study aims to: 1) Assess the Veteran's experience of a focused comprehensive medication review (CMR) and deprescribing intervention. 2) Identify the Veterans' priorities and evaluate whether they were achieved. 3) Explore challenges and opportunities for improvement in the implementation process.

Method: Data was collected from 18 Veterans through semi-structured interviews using an interview guide. The interview transcripts were analyzed using inductive and deductive content analysis. Data was independently coded by two members of the research team for categories and themes. Similarities were identified, and any divergences were discussed and resolved. To enhance the validity of the findings, member checking was performed with Veterans who confirmed the results.

Preliminary Result: While most Veterans concurred with their pharmacist's recommendations and expressed confidence in following instructions on medication changes, reluctance to make changes surfaced among those who had experienced any adverse effects that they attributed to a previous medication withdrawal. Veterans' overall perception of pharmacists was positive, and they expressed a desire for increased frequency in interactions with their pharmacist. Although most Veterans felt actively involved in medication decision-making, some sought additional information regarding the reasons for suggested medication changes. Challenges expressed by Veterans with medication management and with the VA system were limited.

Conclusion: This exploration of Veterans' experiences with CMR and deprescribing interventions provides valuable insights for quality improvement. The findings suggest positive perceptions and a desire for continued patient-pharmacist interactions.

C172 Student Presentation, Encore Presentation**Large Language Models for Symptoms Monitoring on the Basis of Conversational Data from Clinical Encounters**

J. Davis,^{1,3} C. Van Dongen,¹ K. Sciacca,¹ B. Durieux,¹ C. Lindvall.^{1,2} *1. Dana-Farber Cancer Institute, Boston, MA; 2. Harvard Medical School, Boston, MA; 3. Albany Medical College, Albany, NY.*

Background: Longitudinal symptoms monitoring is challenging, which hinders geriatric care delivery, quality improvement, and research efforts. The emergence of Large Language Models (LLMs) combined with ambient audio recording technology provide opportunities to monitor patient symptoms directly from conversations during clinic visits. Our study aims to test the performance of two LLMs to capture symptoms discussed in transcribed conversations from standardized clinical encounters.

Methods: Our dataset comprised 578 transcribed excerpts from 50 synthetic clinical conversations. Two clinical researchers created a gold standard by double coding each excerpt for whether symptoms were present or absent; a third annotator adjudicated disagreements. Two LLMs, gpt-3.5-turbo and gpt-4, were prompted to annotate presence of symptoms for each excerpt. Our zero-shot prompt was "are any medical symptoms mentioned in this transcript". Temperature was set to 0.25; models were directed to output JSON files. We calculated the performance of each model compared to the gold standard using standard metrics and tested for difference in model performance using McNemar's test.

Results: The gold standard identified symptoms in 400 of 578 conversation excerpts. Our prompt yielded gpt-3.5-turbo to identify 255 symptoms with 0.58 sensitivity and 0.86 specificity compared to the gold standard; gpt-4 identified 442 symptoms with 0.98 sensitivity and 0.71 specificity. The most recent model, gpt-4, had significantly improved performance over gpt-3.5-turbo in correctly annotating symptoms ($p < 0.01$).

Conclusions: LLMs show promise in their ability to capture symptoms from conversational data from clinical encounters. Our results showed improvement in performance in the more recent model, which suggests that the performance of LLMs will likely continue to improve over time. A limitation of this study was that we used synthetic clinical encounters with standardized patients due to remaining security concerns of applying LLMs to patient data. Continuations of this work could potentially enable longitudinal symptom tracking of chronic conditions without increasing patient burden.

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C173 Student Presentation**Comparison of Inpatient Satisfaction Measures in Patients with Hearing Loss**

L. Palmieri Serrano,¹ E. Garcia-Morales,^{2,3} E. Oh,⁴ N. Reed,^{2,3} E. Kolberg.^{2,5} *1. Nova Southeastern University Dr Kiran C Patel College of Allopathic Medicine, Fort Lauderdale, FL; 2. Johns Hopkins Cochlear Center for Hearing and Public Health, Baltimore, MD; 3. Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD; 4. Medicine, Johns Hopkins Medicine, Baltimore, MD; 5. Otolaryngology, The Johns Hopkins University School of Medicine, Baltimore, MD.*

BACKGROUND: Individuals with hearing loss (HL) are more likely to report poor healthcare satisfaction; likely related to communication challenges. Two tools measuring satisfaction with and quality of healthcare are the Questionnaire on the Quality of Physician-Patient Interaction (QQPPI) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). QQPPI was developed for use after outpatient care; HCAHPS was implemented by the Centers for Medicare and Medicaid Services after hospitalization.

Though dissatisfaction in patients with HL has been well-documented, previous research has not compared these surveys directly. Purpose of the study was to compare QQPPI and HCAHPS, as well as hearing, in older inpatients. It was hypothesized that the average scores would be correlated and there would be negative relationships of similar magnitude with HL.

METHODS: Analyses were performed to assess strength and direction of associations between satisfaction metrics, as well as between HL and averages for each survey. Participants (N=48) were inpatients 65 years and older on Medicine units of Johns Hopkins Bayview Medical Center who could verbally respond to questions in English. Bedside hearing screenings were completed with an iPad-based app; HL was quantified with better-hearing ear pure tone average (PTA).

RESULTS: Pearson's coefficient for QQPPI and HCAHPS averages was 0.54 ($p > 0.0001$), suggesting a statistically significant correlation of moderate strength. Nonsignificant negative correlations were found between the QQPPI (-0.07) and the HCAHPS (-0.19) with better ear PTA in unadjusted models. Findings are consistent with previous literature linking increased HL with poorer patient satisfaction.

CONCLUSIONS: Statistically significant correlation between surveys shows coherence across healthcare satisfaction tools, and negative relationship direction between surveys and PTA affirms adverse impacts of HL. Study is an early signal of interest regarding healthcare satisfaction in elderly inpatients with HL and providers can use results to better serve patients with HL.

C174 Student Presentation

How do providers discuss brain health?

C. H. Davis, S. Iyer, N. Walker, V. G. Shastri, C. Gould. *VA Palo Alto Health Care System, Palo Alto, CA.*

Background: Brain health refers to the interrelated functionality of multiple neurological systems, including cognitive, emotional, and motor function, that are commonly impacted by age-related diseases. While effective interventions for cognitive decline are limited, there is promising evidence for promoting overall brain health with approaches including mental health, physical activity, medication management, sleep, and social connection. There is a need for understanding how geriatric providers discuss brain health with their patients to identify gaps in care delivery and pathways to improve patient outcomes.

Methods: We administered a survey to 18 geriatric providers (66.67% physicians, 11.11% APRNs, and 5.56% each nurses, psychologists, social workers, and PAs) at a large academic medical center and affiliated VA. We assessed in which contexts brain health is discussed and practical barriers to having discussions. We additionally captured providers' strategies for effectively communicating brain health to patients and their needs for further support and resources. Descriptive statistics as well as free-responses were examined.

Results: Out of 22 providers invited to take the survey, 18 (81.8%) responded. Two-thirds of providers discussed brain health with older adult patients "often" or "very often," with these conversations most frequently occurring when a patient initially reports concerns with cognition, or when a provider gives a diagnosis of mild cognitive impairment/dementia. Time constraints during visits was the most significant barrier to discussing brain health, followed by a lack of specialized providers to refer to. Physical activity was the aspect of brain health most often discussed, followed by social connection and medications/side effects. Common strategies for increasing understanding of brain health included making connections to physical health or a patient's health-related priorities and values. Providers expressed a need for more specialized resources for patients and a desire for systems of care to take a more holistic approach to promoting brain health principles.

Conclusions: Provider barriers, primarily time limitations and lack of specialized resources, could be addressed through integrated geriatric care teams, easily implemented patient tools, and specialized trainings. Effectively communicating brain health principles to patients can improve wellness across multiple domains.

C175 Student Presentation, Encore Presentation
The Effect of a Virtual Exercise Intervention Program for Older Veterans During the COVID-19 Shelter-in-Place

S. M. Nguyen,^{2,1} S. S. Wilkins,^{4,3} S. Castle,^{2,3} C. C. Lee,^{2,3}

1. University of California Los Angeles, Los Angeles, CA; 2. VA Greater Los Angeles Geriatric Research Education and Clinical Center, Los Angeles, CA; 3. University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA; 4. Mental Health, VA Greater Los Angeles Healthcare System, Los Angeles, CA.

Background: Transition to virtual exercise groups occurred during the Covid 19 pandemic. These virtual exercise groups have been found to increase physical function comparable to in-person group exercise programs. The objective of this project was to determine the effectiveness of a virtual exercise program for older Veterans.

Methods: The study population was older Veterans participating in the West LA VA Gerofit exercise program prior to the shelter-in-place. The in-person program included scheduled physical function assessments. The in-person program transitioned to virtual in March 2020. Veterans who participated in Virtual Gerofit (n=7) comprised the Virtual Group (V) and a Nonvirtual group (NV) comprised of Veterans who did not participate virtually (n=17). Both groups returned to the in-person program after the shelter-in-place was lifted. Pre and post pandemic physical assessments were compared between V and NV.

Results: After the shelter-in-place, all Gerofit Veterans significantly declined in lower body strength (p=.0001) and balance (p=.01). The decline in lower body strength in NV was significant (-4.1 chair stands/30sec, p=.0005) while the decline in V was not. The decline in balance, as measured by more time needed to complete the 8ft up-and-go, in NV was +6.1 sec, p=.03 while the decline in V was +2.9 sec, p=.01. Gerofit Veterans declined in lower body strength and balance after the shelter-in-place. However, those who were able to participate in virtual Gerofit had less of a decline than those who were not.

Conclusions: Both groups declined in their physical assessments results. For some exercises, the non-virtual group's decline was significantly worse. Thus, virtual Gerofit resulted in more effective preservation of lower leg strength and dynamic balance. Additional research on the effectiveness and implementation of telehealth can be done to further develop and refine virtual exercise interventions.

C176 Student Presentation
Partnering with Community Organizations to Engage Older Adult Refugees as Medical Students

L. Kim, B. Tang, S. A. Brangman. *SUNY Upstate Medical University, Syracuse, NY.*

Background Syracuse - a sanctuary city - has welcomed over 7,000 refugees in the past decade. Two students forged the first partnership with Interfaith Works, a local non-profit for older refugees, to understand and address the needs of this population.

Methods A 6-month cultural exchange and health advocacy program was created between the Center for Community Engaged Learning and Interfaith Work's New American Program. First half, students participated in a cultural exchange series. Second half, students led sessions to address barriers identified in previous sessions. After each session, students wrote reflections on session outcomes and future improvements. Reflections were analyzed to assess the feasibility of creating, implementing and sustaining a community partnership. Clients provided feedback during a debrief discussion on the last day.

Results Students engaged with 8 clients for eight 2-hour long sessions. The clients (87.5%) resettled in Syracuse from Democratic Republic of the Congo, spoke Kinyarwanda (87.5%), were within the age range of 61-75 years old, and were all below the poverty level. Students developed a better understanding of the specific challenges older refugees face, such as the loss of social status, effects of financial insecurity, and lasting impressions of emotional trauma. The sessions led by students addressed these issues by providing a space for social interaction and low-cost health maintenance activities, such as chair exercises, that would promote mental and physical health. Analysis of the reflections showed that the sessions created a safe environment for clients to process their trauma, reduce their social isolation, and better their wellness.

Conclusion Partnering with a community agency to promote the well-being of older adult refugees was determined to be a feasible project for second year medical students, with upcoming medical students continuing the partnership. With the recent political climate, we believe that students should engage with this demographic to understand their multicultural backgrounds and how their refugee status impacts aging.

C177 Student Presentation
Impacts of an Educational Initiative: Assessing Advance Directive Completion, Confidence, and Ethnic Disparities in Older Adults

P. Gangupantula,¹ N. Siby,¹ C. Kittleman,¹ A. Kakulavar,¹ A. Cooney,^{1,2} J. Morrow.^{1,2} *1. The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2. University Health, San Antonio, TX.*

Background:

Advance directives (AD) allow older adults (OA) to legally document their preferences regarding what matters most to them in end-of-life care when they are unable to communicate these wishes.

Despite the many benefits of completing AD, barriers such as lack of education and difficulties with paperwork completion result in <46% of OA in the United States having an AD. We examined the effects of an educational intervention on OA attitudes and confidence in completing AD.

Methods:

Medical students and faculty mentors at a single academic center developed a 1-hour group interactive educational intervention geared toward increasing knowledge regarding the nature and purpose of AD. Subjects were recruited by calling assisted living facilities, caregiver support groups, and nursing homes in the local community. Bexar County residents ≥ 65 years old who participated in the educational intervention and completed pre- and post-surveys were included in the study.

Results:

Out of 46 OA respondents, 43.48% (N=20) identified as Hispanic or Latino, 50% (N=23) identified as Non-Hispanic or Latino, and 6.52% (N=3) did not report ethnicity. 47.8% of all OA reported having an AD. Of the 52.2% OA without an AD, top barriers preventing AD completion were lack of knowledge, lack of prioritization, and never thinking about an AD before. 30.4% reported that their healthcare providers offered to discuss an AD. 40% of Hispanic or Latino OA had an AD versus 53.85% of other OA. After the educational intervention, 25% of Hispanic or Latino OA without an AD reported increased confidence or willingness to complete an AD versus 41.67% of other OA without an AD.

Conclusions:

A group interactive educational intervention focusing on the nature and purpose of AD led to increased confidence or willingness to complete an AD among OA. The educational intervention was less effective for Hispanic or Latino OA in our community. Future studies can promote health equity by examining sociocultural, language, or health literacy barriers that impact confidence toward and completion of AD among Hispanic or Latino OA in our community.

C178 Student Presentation

Patient Portal versus Mail for Communicating with Patients with Dementia (PLDs)

M. Rothanzl,^{1,2} J. Ma,³ D. Jeffrey,^{1,4} S. Mohring,^{1,4} J. Kim,³ J. F. Potter.^{1,2} 1. Dept of Internal Medicine, University of Nebraska Medical Center, Omaha, NE; 2. Division of Geriatrics, University of Nebraska Medical Center, Omaha, NE; 3. College of Public Health, University of Nebraska Medical Center, Omaha, NE; 4. Division of General IM, University of Nebraska Medical Center, Omaha, NE.

Background: Patients with and without dementia have similar rates of enrollment in patient portals (PPs), and PLDs have more PP activity after diagnosis¹. This study compares efficacy and preferences for mail vs PP to communicate with PLD.

Methods: All PLDs from 2 clinics were sent information on the Alzheimer's Association. Those with no active PP received information by mail (MNP; N=48). Those with PP were randomly assigned to receive information by either mail (MAP; N=53) or PP (POR; N=32). A phone survey 2-4 months later asked: was information received? Should it be resent? If so by what method (mail/portal)? Statistics included standard descriptive, Kruskal-Wallis & Chi-square. Multivariate logistic regression for only those with an active PP (MAP & POR), explored factors contributing to the preference for PP as the resend method.

Results: Surveys were completed by 75.5% for MNP, 79.2% for MAP, and 78.1% for POR groups. The % of respondents confirming receipt of information (28% for MNP, 30% for the MAP, 16% for POR) did not differ across groups, $p=0.433$. Of those who wanted information resent 84% preferred the same method as originally used; 93% in the MAP requested mail; 100% of the MNP requested mail; 44% of the POR group preferred PP ($p<0.0001$). Multivariable logistic regression exploring a preference for resending by PP showed that

initial delivery method strongly predicted choosing PP for resending, controlling for other variables (OR=14.5, 95% CIs [2.8, 76.2]; $p=0.0016$) and a trend in preferences for PP by respondent characteristics; compared to patients, caregivers, excluding spouses, favored information sent by PP (OR=8.0, 95% CIs [0.96, 66.2]; $p=0.0743$).

Conclusions: When sending PLDs educational resources, there was no difference in recall of information received whether sent via PP or mail. Of survey respondents, only 25% (26/103) recalled receiving information. However, the majority (61/103) requested the information be resent, suggesting they recognized the information's importance. Patients preferred mail as the delivery method while caregivers preferred that information be resent by PP.

C179 Student Presentation

Blood Pressure Variability Associated with Falls in Nursing Home Residents

E. Holzwarth,¹ P. Knutson,¹ E. Soutlan,¹ A. K. Hara,¹ M. Klug,² G. D. Manocha,¹ D. Jurivich.¹ 1. Geriatrics, University of North Dakota, Grand Forks, ND; 2. Population Health, University of North Dakota, Grand Forks, ND.

Introduction: Studies have established an association between high variations in serially measured blood pressures (BP) and adverse events such as poor surgical outcomes, memory loss, and increased cardiovascular mortality. Here, blood pressure variability (BPV) was examined for an association with falls occurring in nursing homes (NH). Given that falls have a multifactorial etiology, including associations with frailty, gait speed and polypharmacy, this study explores the physiologic connection between falls and BPV.

Methods: A retrospective study was conducted in 2 teaching NH. Medical records of residents 65 years and older were reviewed for BP measurements recorded from two time points/month over 10 months and fall incidents reported in nurses' notes, provider progress notes or hospital medical records. The outcome of falls was measured as the total number of falls, time from the first fall to the second fall, and average number of days between falls.

Results: 100 patient charts were analyzed. Population was 100% Caucasian, 60% female, with an average age of 85 years (65-104 years). The average number of falls over a 10-month period was 6.64 per resident. A correlation was found between systolic and diastolic BPV and falls, thus systolic BPV was used for further analysis. The average systolic BPV significantly increased from 15.4 for those with 1-3 falls, to 19.9 for those with >9 falls. Furthermore, age, increased BPV, and pertinent comorbidities (dementia, kidney disease) were associated with decreased time (days) between falls. No correlation was found between BPV and injuries with falls or mortality.

Conclusions: Increased BPV is associated with an increased fall risk, especially identifying frequent fallers. BPV may be another clinical tool along with other risk assessments to identify individuals with a high fall risk in long term care. Due to the time frame of this study (10-month period), additional questions exist whether shorter intervals of BPV measurements can equally predict frequent fallers. Further studies are needed to evaluate the frequency of BP measurements required to better assess the risk of falls for the geriatric population in other settings. Finally, it remains to be seen whether rehab and improvement in BPV can be linked to reduced fall risk.

C180 Student Presentation
Impact of “Crisis-Induced-Isolation” on Opioid and Substance Use Among Older Adults: A Study in Rural and Inner-City Michigan

Y. Gariaqoza, E. Nguyen, V. Vadnala, B. Snel, J. Pandey. *Central Michigan University College of Medicine, Mount Pleasant, MI.*

Introduction:

The intersection of socioeconomic challenges, aging, and drug use has emerged as a critical area of concern, particularly among homebound older adults. This study zeroes in on this intersection, focusing on socioeconomically disadvantaged, older adults residing in rural central Michigan and inner-city Detroit.

The study aims to shed light on patterns of opioid and other drug use within this group, considering the impact of “crisis-induced-isolation” on substance use behaviors, both prescribed and otherwise. The insights from this pilot study could contribute to our understanding of the complexities faced by homebound older adults with mobility issues in times of isolation and stress.

Methods:

An IRB-approved questionnaire was distributed to homebound older adult participants of inner city and rural Michigan enrolled in the PACE program. The survey assessed changes in opioid and other substance use during COVID-19 isolation as an example of “crisis-induced-isolation”. Descriptive statistics analyzed the data.

Results:

The survey participants (70) were mainly Caucasian (52) and women (43). The median age was 55-64 years. 38 participants had a history of opioid use with 12 reporting opioid misuse. Two participants started using opioids during the “crisis-induced-isolation”.

Among the survey responses on behalf of loved ones, 14 were related to opioid use disorder. Six of these 14 were current users, with four experiencing an overdose during isolation. The majority initially used prescribed opioids, with 12 continuing the rehabilitation treatment. One person reported death of a loved one due to opioid overdose.

Regarding “crisis-induced-isolation” impacts, 48 completed the relevant questionnaire and 21 reported an increase in substance use, with 5 indicating an increase in opioid use.

Conclusion:

The study found a rise in substance use during the “crisis-induced-isolation” but little evidence for increased opioid use in older adults. This highlights the impact of isolation on substance use patterns which may depend on availability. Most current opioid users are in treatment, emphasizing the importance of such services. The data suggests a need for ongoing close support, monitoring, and education for already isolated individuals during “crisis-induced-isolation.”

C181 Student Presentation
The Association between Constipation and Falls in Older Adults

H. Gulwani,^{1,2} P. Harris.² *1. California University of Science and Medicine, Colton, CA; 2. Geriatrics, University of California Los Angeles, Los Angeles, CA.*

Background: Falls are a highly prevalent issue among older adults, making it a significant public health issue in the United States. There are several risk factors that are contributory to falls and although constipation is mentioned as a potential risk, there are very few studies that address constipation and falls.

Methods: We performed a retrospective chart review of patients ages 75+ referred to weekly falls clinic compared with patients in general internal medicine clinic with constipation during the same time period (7/1/2022 to 7/1/2023) at UCLA Health. We performed a t-test confirmed with linear regression to control for confounding variables. This quality improvement study aimed to find a correlation between the presence of constipation in an older adult and history of falls. The history of constipation was determined by chart review

using key words (laxative, constipation, and various laxative names) and the presence of falls was determined by chart review of the chosen patient files.

Results: Both adjusted and unadjusted analyses showed a statistically significant correlation between reported falls and constipation, (t-square p=0.047). However, the number of patients was small (N=23 In control arm and N=25 in intervention arm).

Conclusion: Although the study found that more older adults in the fall risk compared to older adults in the control group had constipation, it was unclear if being a fall risk made individuals more prone to constipation or if the constipation/laxative use was contributory to the falls. Therefore, further studies would help to determine a significant correlation so that in future geriatric falls risk assessments, physicians may potentially identify constipation as a risk factor for falls in older adults.

Results

	Falls Clinic	IM Clinic	p Value
Sex	64% female 36% male	47.8% female 52.2% male	0.220
Mean Age	83.44	82	0.835
Presence of Constipation or Laxative Use	56%	39%	0.029 (unadjusted) 0.047 (adjusted)

C182 Student Presentation
MyChart Billing: Striking a Balance Between Protecting Provider Time and Offering Accessible Care

S. Alturky, S. Gupta, A. Smeraglio, J. Gold. *Oregon Health & Science University, Portland, OR.*

Background

Amidst the COVID-19 pandemic, physicians turned to technology to conduct virtual visits and increase communication with patients via MyChart messaging. This improved accessibility, but providers were not compensated for time spent responding to patient messages. In 2022, Oregon Health & Science University began billing for MyChart messages to protect and pay provider time. While this is an essential step for physician time management, there is little data on patient impact. We aimed to determine if initiating billing for MyChart messages disproportionately impacts MyChart use amongst vulnerable populations such as patients > 65 years of age and those in racial minority groups.

Methods

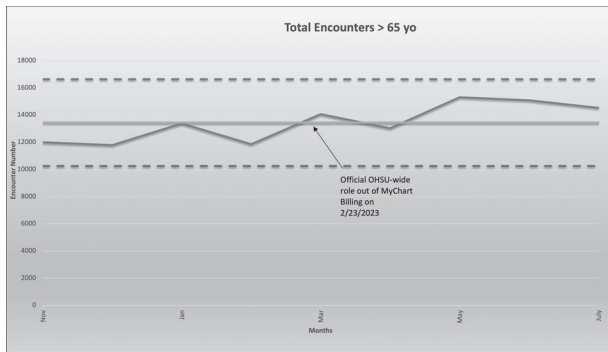
An alert was sent to all OHSU MyChart patients on 2/27/2023, announcing the initiation of bills for MyChart messages. Data regarding MyChart message frequency and billing status pre and post-this announcement were sorted by various demographics (e.g., age, race, etc.). Analysis was conducted using a prepared control chart, displaying encounters over time, pre- and post-billing implementation.

Results

The announcement that billing would occur did not change patient behavior. Rates of patient MyChart messaging remained unchanged. Before the billing rollout, 23% of the senior population utilized MyChart messaging, which insignificantly rose to 26% following. Providers also issued very few bills despite having this option, with less than 0.3% of MyChart messages being billed monthly.

Conclusion

Despite implementing a MyChart billing system, vulnerable patients were not dissuaded from utilizing the service. While this is encouraging news that billing for MyChart does not change accessibility, further studies should investigate if receipt of a bill changes patient behavior or creates disproportionate barriers to the vulnerable.



Total Encounters for Patients over 65

C183 Student Presentation

Characteristics of patients with dementia and behaviors receiving geriatrics consultation in the emergency department

G. J. Fry,² S. Wong.¹ 1. Geriatric Medicine, Duke University, Durham, NC; 2. Duke University, Durham, NC.

Background: Caregivers of people living with dementia (PLWD) and behavioral and psychological symptoms of dementia (BPSD) experience stress; in crises, they may bring PLWD to the emergency department (ED). Caregivers may feel unable to take patients home, leading to long hospital stays preceding transition to a skilled nursing facility (SNF) or assisted living facility (ALF). This study evaluates ED geriatrics consults.

Methods: Data from 43 cases of PLWD and BPSD who received a geriatrics consult in the ED from January to August of 2023 were retrospectively reviewed for trends in hospital admission, average total length of stay (aTLOS), and 30-day ED return (30DR) rate. Interventions included medicine changes, caregiver support, and Geriatric Evaluation and Treatment (GET) clinic referral. Five outliers with TLOS \geq 83 days were excluded from summary result calculations.

Results: Twenty-three people were discharged from the ED (4 to facility, 19 to home). Fifteen were admitted to the hospital (11 discharged to facility, 4 to home). Overall, people discharged to ALF or SNF had longer aTLOS (14.2 days) than those discharged home (3.7 days). Five of 6 patients with a 30DR were discharged home from the ED. Zero of 9 patients who received GET referral had a 30DR despite 7 returning home, 5 of 7 directly from the ED. People with discontinuation of \geq 1 medication had shorter aTLOS (5.8 vs 9.9 days). Caregiver support did not impact measured outcomes. The 5 outliers with TLOS \geq 83 were <65 years old, had Medicaid, presented from a facility, and had antipsychotics added or adjusted during their stay.

Conclusions: GET referral data suggest that presenting resources alternative to the ED may improve 30DR rates. Specific caregiver support strategies should be analyzed in future studies. Effects of intervention on TLOS were difficult to discern due to factors including caregiver burden, facility availability, and payor source. Data support current initiatives: 1) formal collaboration with ALFs for education and coordination, 2) protocol for ED and population health case managers to support discharge home from the ED and transition to facility, and 3) development of a transitional model of care aimed at creating a behavioral and medical care plan for PLWD and BPSD with follow-up at ALFs. Future evaluations of these initiatives and patient outcomes are needed.

C184 Student Presentation

Acute Care for Elders Unit Implementation at Banner Health: A Quality Improvement Analysis

J. Lahti,^{2,3} T. Gaidici,^{1,3} S. Bharath,³ E. Saraswat,³ N. Agarwal.³

1. The University of Arizona College of Medicine Phoenix, Phoenix, AZ; 2. Banner Home Care, Gilbert, AZ; 3. Geriatric Medicine, Banner University Medical Center - Phoenix, Phoenix, AZ.

Background: There is an increasing need to optimize hospital care for older adults as Age Friendly Healthsystems (AFHS) become increasingly popular. Geriatric patients may often be subject to extended hospital stays, which can result in functional decline, increases in hospital-acquired injury, infections, and neurocognitive deterioration. Early acute inpatient rehabilitation (IRF) is known to improve functional optimization of older adults as compared to therapy in a skilled nursing facility (SNF). In this study we demonstrate the effect of a structured program based on the 4Ms of AFHS in our newly established Acute Care for Elders (ACE) unit, a first in Arizona.

Methods: We compared median LOS for ACE patients who were discharged to inpatient rehabilitation facilities (IRFs) to non-ACE patients. One year data from 7/1/2022-6/30/2023 were utilized to analyze the impacts on LOS. Pre and post-ACE unit review was completed.

Results: The ACE unit started in November 2022 and since then, the month-over-month median ACE LOS has remained lower than the non-ACE LOS. This LOS reduction is consistent with other historical data at hospital systems nationwide.

Conclusions: The data has shown that reducing LOS by identifying the right patients for acute rehab early on can improve level of function and lower costs. As the only ACE unit in Arizona, this unit is positioned to be a prime evidence-based model for implementation of ACE units in other hospitals to improve the quality of care statewide and beyond.

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C185 Student Presentation

Impact of Care Systems on Geriatric Orthopedic Hip Fracture Patients

H. D. Alexander,¹ A. L. Ehrlich,² O. P. Owodunni,³ S. L. Gearhart.²

1. The University of Arizona College of Medicine Tucson, Tucson, AZ; 2. Johns Hopkins University, Baltimore, MD; 3. University of New Mexico School of Medicine, Albuquerque, NM.

Introduction: Hip fracture in older adults carries a significant burden of cost to the healthcare system upwards of \$6 billion annually. Previous research has emphasized that multidisciplinary management, including geriatrics, orthopedics, and allied health providers improves outcomes in this population. Due to concerns of the need for more intensive medical care in this population and the need for in-house medicine first-call providers overnight, changes in care were made at one hospital from geriatric co-management on surgical services to a mixture of hospital co-management and primary hospitalist services, with geriatric consultation as requested, for geriatric orthopedic hip fracture patients. This study assesses the impact of these changes.

Methods: This retrospective observational study compared operative outcomes of patients ≥ 65 years admitted for emergent hip fracture surgery before (Jan 2018 – July 2022) and after (July 2022 – March 2023) these changes. Frailty was measured with the modified frailty index. Outcomes of interest included major complications (CD II–IV), delirium, pressure wounds, length of stay (LOS; defined as time from surgical procedure to discharge), and loss of independence (LOI; defined as discharge to a higher level of care than admitted from). Univariate and multivariate outcomes were assessed.

Results: A total of 291 patients (224 pre-, 67 post-programmatic change) predominantly white females with a median age of 83 years were compared. There were similar rates of frailty in both cohorts. The post-programmatic change cohort had a higher percentage of arthroplasties as opposed to IM nail insertions with an increased length of surgery (100.3 vs. 80.1 minutes, $p < 0.001$) and a longer delay to surgery (2 days vs 1 day, $p = 0.022$). Following the changes there was a significant increase in pressure wounds (OR 11.75 [3.81-36.26]), length of stay (IRR 1.49 [1.23, 1.79]) and mortality (OR 3.69 [1.08, 12.53]). There was no significant change in other outcomes of interest.

Conclusions: Although this shift in care was associated with poorer outcomes, additional unit specific variables are under investigation and further research is needed to guide iterative programmatic improvements for the care of the geriatric hip fracture population.

**C186 Student Presentation, Encore Presentation
Refinement of a Time Limited Trial Conversation Guide for Critically Ill Older Adults in the Emergency Department**

K. McGough,¹ K. Ouchi.^{2,3} 1. School of Medicine, University of Missouri, Columbia, MO; 2. Harvard Medical School, Boston, MA; 3. Emergency Medicine, Brigham and Women's Hospital, Boston, MA.

Background

Time Limited Trial (TLT), a shared decision-making conversation exploring patient values has been shown to reduce potentially nonbeneficial treatments among seriously ill older adults in the Intensive Care Unit. Decisions to initiate intensive care often occur in the Emergency Department (ED), yet no established ED-based approach exists to initiate these conversations and set patient expectations for intensive care.

Methods

We used a systematic approach to quantify the content validity of our adapted TLT guide containing five sections: Acute Care Needs, Values & Preferences, Summary, Time Limited Trial, and Conclusion. We asked an expert panel consisting of emergency physicians and seriously ill older adults with intensive care experiences to rate the necessity, relevance, clarity, and comprehensiveness of each section on a 4-point scale (e.g., 1 = not necessary, 2 = of little necessity, 3 = useful not necessary, 4 = necessary) and provide feedback. We calculated the proportion of experts who rated each section 3 or 4 (item content validity index, I-CVI). Using a recommended I-CVI acceptable cut-off score of at least 0.78, we either revised or eliminated sections below 0.78 based on expert feedback.

Results

We calculated the I-CVI for the whole group ($n = 13$, CVI-necessity, relevance, clarity) and for emergency physician experts only ($n = 8$, CVI-comprehensiveness). No sections were eliminated. All sections except one had 1-3 categories in need of revision for which expert suggestions were implemented.

Conclusions

The contents of the TLT guide were evaluated and revised by an expert panel for use in the ED. Future studies will test the acceptability, feasibility, and potential efficacy of the guide in the ED.

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Critically Ill Patients with Advanced Medical Illnesses and Reduction of Nonbeneficial ICU Treatments. *JAMA Intern Med.* 2021 Jun 1;181(6):786-794.

**C187 Student Presentation
Increasing the Frequency of Depression Screening to Improve Outcomes in Long-Term Care**

A. Conyers. Nursing, Chamberlain University, Addison, IL.

Abstract

Background: Depression is the leading cause of debility and even death in the United States. Research shows that increasing the frequency of depression screening could provide the help patients need in real time.

Methods: The PARIHS model was used to guide the implementation of the DNP practice change project. The DNP practice change project used comparative data analysis to determine when patients with current signs and symptoms were screened in the long-term care setting. The intervention of conducting PHQ-9 screening monthly will influence the referral rates to psychiatry.

Results: According to the Chi-square analysis, the referral rates to psychiatry have increased. There has been a statistically significant change in screening rates the following implementation ($p = < 0.001$) of increasing the PHQ-9 depression screening on the patients exhibiting current signs and symptoms of depression. There were a 55% increase of patients that were referred to mental health within the 8-10 weeks implementation period.

Conclusion: The DNP project findings indicated there was an increase in referral rates to psychiatry. Research shows that increasing the frequency of depression among patients currently exhibiting signs of depression, will promote assistance needed to patients in real-time. This will increase the quality of life in patients, increase referral rates to mental health and increase quality measures within the facility.

**C188 Resident Presentation
Use of Delirium Prevention Protocol to Reduce Physical Restraint Use in Hospitalized Patients with Delirium**

R. Darby-McClure,³ N. D. Ramalingam,¹ B. Bal,³ E. Sosa,³ C. Arsan,³ S. Cohen.² 1. Graduate Medical Education, Kaiser Permanente Oakland Medical Center, Oakland, CA; 2. Geriatrics, Kaiser Permanente Oakland Medical Center, Oakland, CA; 3. Psychiatry, Kaiser Permanente Oakland Medical Center, Oakland, CA.

Background: Delirium commonly affects hospitalized patients and results in increased a) length of stay, b) use of physical and chemical restraints, and c) frequency of adverse events. Studies have previously examined effects of medical and behavioral interventions on delirium-related outcomes. Delirium prevention protocols using multimodal interventions may decrease incidence and severity of delirium which may be associated with decreased restraint use. Our project aims to improve quality of evidence-based interventions for delirium management in geriatric patients hospitalized at Kaiser Permanente Oakland Medical Center (KPOMC).

Methods: Based on previous findings on delirium interventions in hospital settings, we piloted a “Delirium Prevention Bundle” for 2 weeks on one unit at KPOMC. The bundle comprised of daily delirium screening, daily visitation by geriatric clinical nurse specialist, mobility assistance, vision/hearing assistance, encouragement of safe eating/hydration, targeting patients at high risk for developing delirium. Pre- and post-intervention outcomes included percent restraint days on the pilot unit (measuring overall prevalence of restraint use) and average restraint days per restrained patient (measuring duration of restraint use in individual restrained patients). Data was collected via EMR review and documentation from the intervention.

Results: EMR data examining patients admitted to the pilot unit demonstrated a decrease in the percentage of restraint days on the unit,

from pre-intervention (4.2%) to post-intervention (1.5%). There was also a decrease in average restraint days per restrained patient pre- and post-intervention, from 5 days to 2 days, respectively.

Conclusions: Initial data, although based on a small sample, suggest a trend towards decreased restraint use after implementation of “Delirium Prevention Bundle.” Current efforts focus on continued data collection and analysis of feasibility and effectiveness; future steps include expansion to additional hospital floors. Future data analysis to assess impact on secondary outcome measures such as 30-day readmission rates is planned to be completed before February 2024.

C189 Resident Presentation

Implementation of Advance Care Planning in Nursing Homes

H. Pham,^{2,1} T. Nguyen,^{2,1} S. E. Ross,³ S. Murphy,⁴ J. Severance.⁴

1. Family Medicine Residency, University of North Texas, Denton, TX; 2. GME - Family Medicine, HCA Healthcare Inc, Fort Worth, TX; 3. Internal Medicine and Geriatrics, University of North Texas Health Science Center, Fort Worth, TX; 4. University of North Texas Health Science Center, Fort Worth, TX.

Background: The 2022 National Imperative to Improve Nursing Home Quality has recommended identifying resident goals and priorities. Only 38.2% of Americans with chronic illnesses have completed advanced directives; considering this, developing a more robust system for residents to affirm their goals of care is imperative. Tracking advance care planning (ACP) is not required of SNFs, thus data on the prevalence of advanced directive completion is lacking. The objective of this QI project is to increase ACP activity in participating SNFs; including an increase in: general ACP discussions and formal documentation. Tracking ACP activity creates increased awareness among facility teams to promote dialogue on goals of care and end of life wishes.

Methods: We partnered with TMF Health Quality Institute (TMF), the CMS Quality Innovation Network-Quality Improvement Organization (QIN-QIO) for Texas. A TMF consultant with expertise in Quality Assurance and Performance Improvement (QAPI) served as the coach for 12 participating SNFs. The TMF coach provided 8 custom remote coaching sessions in best practices to enable implementation of the QI initiative. Data from each SNF was collected over 18 months. The defined ACP quality measure was: Residents with any stage of ACP in place compared to all residents, except those without a surrogate decision maker or are incapable of making decisions.

Results: 10 recruited facilities out of 12 completed the coaching program. By the end of 2022, all 10 sites achieved 100% of resident ACP discussions, with 9 out of 10 improving the percentage of residents choosing to document an ACP or surrogate decision maker. Also, 7 of the 10 sites had completion rates exceeding the national average of 38.2% of those with chronic disease having advance directives.

Conclusion: Coaching sessions helped facilities implement ACP quality improvement. The creation of a definition and method for measuring ACP as a quality measure enabled facilities to know their status and increase the resident participation in conversations about or completion of advanced directives.

C190 Resident Presentation

Management of Osteoporosis in Primary Care by Clinical Pharmacist Practitioners

E. Stauffer, M. Gaynor, E. Ellis. VA Eastern Colorado Health Care System, Aurora, CO.

Background: Osteoporosis (OP) is the most common metabolic bone disease in the world; however, many patients may go untreated.¹ Primary Care Clinical Pharmacy Practitioners (CPPs) within the VA Eastern Colorado Health Care System (VA ECHCS) operate under a broad scope of practice to improve Veteran care. In September and October 2023, this group was provided with education about OP management and received a dashboard to identify patients who may be

indicated for OP treatment. Following this educational intervention, the goal of this quality improvement project was to evaluate Primary Care CPPs involvement with OP management and the interventions made.

Methods: Primary Care CPPs identified Veterans who were reviewed for potential OP intervention via a dashboard. The medical records for these Veterans were reviewed retrospectively to collect information about demographics, OP medications, laboratory values, DEXA results, and pharmacist interventions.

Results: Of the 3361 Veterans identified from the dashboard who may be eligible for OP treatment, 17 Veterans were assessed by a Primary Care CPP as of November 2023. The majority were men (76%), the average age was 73 years (52-87 years), and four (24%) belonged to an underrepresented race or ethnicity; reflective of the Veteran population in Colorado. Fifteen (88%) Veterans were ineligible for pharmacist intervention, of which six (40%) patients were already on alendronate, four (27%) patients were already followed by endocrinology, three (20%) patients did not meet criteria for treatment, one (7%) patient had a bisphosphonate allergy, and one (7%) patient is on alendronate holiday. Two (12%) Veterans were outreached by a pharmacist for intervention, which included updating the medication list and ordering a vitamin D level and DEXA scan.

Conclusion: Clinical pharmacists have the opportunity to significantly improve care of Veterans with OP. The frequency of pharmacist intervention in OP management was low, due to project time constraints and dashboard limitations. VA ECHCS is currently collaborating with an innovation specialist to create a new dashboard to more effectively identify eligible patients for pharmacist outreach and OP care.

Reference: LeBoff MS, Greenspan SL, Insogna KL, et al. The clinician’s guide to prevention and treatment of osteoporosis [published correction appears in *Osteoporos Int.* 2022 Jul 28;]. *Osteoporos Int.* 2022;33(10):2049-2102. doi:10.1007/s00198-021-05900-y

C191 Resident Presentation

Pharmacist Follow-Up After Severe Hypoglycemia in Older Adult Veterans

M. Nguyen,¹ L. Kemp,¹ A. Mirk,^{2,1} K. Manns.¹ 1. Pharmacy Service, Joseph Maxwell Cleland Atlanta VA Medical Center, Decatur, GA; 2. Birmingham/Atlanta VA Geriatric Research, Education, and Clinical Center (GRECC), Birmingham, AL.

Abstract

Background

Hypoglycemia is an underrepresented consequence of type 2 diabetes mellitus (T2DM) management in older adults and is associated with falls, compromised quality of life, and death. Pharmacists within the Veterans Affairs Health Care System (VAHCS) serve a unique role in T2DM management, leveraging their expertise to ensure safe, effective, and appropriate medication use. The purpose of this project was to evaluate the frequency of pharmacy follow-up after a severe hypoglycemic event in a population of older adult Veterans with T2DM at the Atlanta VAHCS.

Methods

This was a single-center, retrospective quality improvement project conducted within the Atlanta VAHCS. Eligible index encounters were the earliest emergency department (ED) encounter by a Veteran ages 65 years or older with T2DM for a hypoglycemic event between June 1st, 2017 and June 1st, 2022. The primary endpoint was the frequency of pharmacist follow-up after the index encounter. The secondary endpoints included repeat ED visits or hospitalizations for hypoglycemia, T2DM medications at baseline, and changes in hemoglobin A1c. Data was extracted from the Corporate Data Warehouse using Structured Query Language. Descriptive statistics were used to assess findings.

Results

A total of 288 encounters met inclusion and were considered index encounters for hypoglycemia, 160 (55.6%) of which comprised of older adults. Among these Veterans, only 76 (47.5%) received a follow-up visit with a pharmacist for T2DM within 4 weeks. Repeat encounters for hypoglycemia were infrequent, but were approximately twice as often for older (11 encounters) relative to younger (5 encounters) Veterans.

Conclusion

In this review, older Veterans comprised more than half of ED encounters for severe hypoglycemia and were twice as likely to have a recurrent event, relative to their younger counterparts. Despite this, less than half of these Veterans received a follow-up visit with a pharmacist within 4 weeks. These findings inform the need for systemic changes, such as protocols for follow-up after an acute severe hypoglycemic event, consideration for pharmacy referral, and continuing education efforts.

C192 Resident Presentation

Association of medication use on falls in geriatric residents of a VA community living center (CLC)

J. K. Lee, D. Currie. *Pharmacy, VA Sierra Nevada Health Care System, Reno, NV.*

Background: Falls are a major public health concern for older adults. Residents of nursing homes or rehabilitation settings are at an increased risk compared to community dwellers. The current fall risk tool utilized for CLC residents at the VASNHCS is the Morse Fall Scale Calculator, which does not assess medication use. This quality improvement project identifies fall risk-enhancing medications in order to create a site-specific fall risk tool for integration into routine medication reviews. **Methods:** We conducted a retrospective cohort analysis using data from the electronic medical record. The population included adults aged 65+ at the time of their first fall during a CLC admission between January 1, 2018 and August 31, 2022. Demographic data included age, gender, high fall-risk comorbid conditions, and pertinent labs and vitals. Variables of interest evaluated using descriptive statistics included time to first fall, average number of medications, and type of medications administered within 2 and 24 hours of the fall. A secondary analysis was conducted to stratify age into the subgroups youngest-old (ages 65 to 74 years), middle-old (ages 75 to 84 years), and oldest-old (ages 85+). **Results:** 163 residents were identified, primarily male (160; 98%) with median age of 78 years (IQR 15). The median time to fall was 18 days (IQR 40). The most common disease states were hypotension/syncope (89; 49.1%), dementia (76; 46.6%), and depression (64; 39.3%). 53 (40.2%) residents had a vitamin D level <30 ng/mL, 111 (68%) had a hypotensive event (blood pressure <100/60 mmHg), and 78 (48%) had a bradycardic event (heart rate <60 bpm). Across all age groups, the average number of medications administered per resident within 24 hours of a fall was 6.9 (SD 4.3). The most frequently administered medication classes within 24 hours of a fall were laxatives (89; 54.6%), acetaminophen (64; 39.3%), opioid analgesics (53; 32.5%), and alpha blockers (53; 32.5%). The most frequently administered medication class within 2 hours of a fall was anticonvulsants (18; 12.3%). **Conclusions:** A majority of falls occurred within the first month of admission with known high-risk medications administered to over a third of the residents. A comparative cohort analysis to residents who did not have a fall will help identify fall risk-enhancing medications at our site.

C193 Resident Presentation

Effectiveness of an multiprofessional workgroup for the implementation of Disease Modifying Therapy for Alzheimer’s Disease (DMTAD): a lecanemab infusion clinic

L. M. Varga,¹ L. Triantafylidis,¹ J. Roefaro,¹ C. Wagner,¹ A. Charidimou,² H. Noah,² B. Reynolds,² N. Pierre,³ V. Coronel,³ A. E. Budson.² *1. Pharmacy, VA Boston Healthcare System Jamaica Plain Campus, Boston, MA; 2. Neurology, VA Boston Healthcare System Jamaica Plain Campus, Boston, MA; 3. Nursing, VA Boston Healthcare System Jamaica Plain Campus, Boston, MA.*

Background:

Lecanemab is an anti-amyloid monoclonal antibody directed against amyloid beta aggregates approved in mild Alzheimer’s Disease and mild cognitive impairment. Due to the novelty of this medication class, there is limited real-world data for implementation. Our objective is to evaluate our multiprofessional workgroup’s ability to implement a lecanemab infusion clinic safely and effectively.

Methods:

This prospective quality improvement initiative at a tertiary medical center evaluates the use of lecanemab in older adult veterans. Our workgroup is made up of pharmacists, neurologists, a geriatrician, neuroradiologists, a physician assistant, and nurses. Prior to implementation, we developed a local policy for use, medication order set, note templates, educational materials and teaching sessions for patients and providers, and a standardized process for evaluating candidacy for new patients and monitoring safety for enrolled patients.

We will assess safety, including incidence of infusion related reactions (IRR) and amyloid related imaging abnormalities (ARIA). We will also assess clinic workflow effectiveness, including the number of patients initiated on lecanemab, completion of MRIs at correct intervals, and length of therapy. Surveys will assess satisfaction with patient education and infusion clinic procedures.

Results:

We evaluated 15 patients for lecanemab candidacy: 4 were ineligible, 6 are still undergoing testing, and 5 are eligible. To date, 5 infusions have been administered between 2 patients, patients received their baseline MRIs, and no IRR or ARIA has occurred. For patients enrolled we maintain an infusion tracker to coordinate scheduling, monitoring and evaluation for side effects. We will survey patients at the start of their 5th infusion and again at their final infusion.

Conclusions:

Our multiprofessional workgroup has allowed for the successful and safe implementation of a lecanemab infusion clinic. To date, our processes have allowed us to successfully evaluate patients to verify appropriate candidacy, continuously monitor patient safety, and ensure adequate follow up.

C194 Resident Presentation

Adapting Age-Friendly Health Practices for Older Veterans

S. Goksu,¹ K. Kerollos,² S. Sabharwal,³ A. Mantha,³ J. Cyriac,³ A. Bial,³ S. Ali.³ *1. West Suburban Medical Center, Oak Park, IL; 2. Cape Coral Hospital, Cape Coral, FL; 3. Edward Hines Junior VA Hospital, Hines, IL.*

Background: As individuals age, their unique experiences and cultural backgrounds shape their healthcare needs and preferences. To address this, Age-Friendly Health Systems adopt a personalized, holistic approach. They focus not just on treating diseases but on comprehensive care that aligns with the specific needs and values of older adults and their caregivers, recognizing the complex and individual nature of aging. Our study aims to implement Age-Friendly Health Practices for Older Veterans.

Methods: Our quality improvement study included 27 patients who visited the VA Hospital outpatient clinic from December 2022 to April 2023. We utilized percentage-based metrics to summarize the

initial characteristics, incorporating demographic details (such as age, gender, race, ethnicity, and service era), code status, and the status of the 4Ms: What Matters, Medication, Mentation, and Mobility.

Results: Out of 27 individuals assessed, 70% identified as white and 89% as non-Hispanic, with a median age of 80 (73-94). A third professed Roman Catholicism, while 19% followed Protestantism. 78% of Veterans were from the Vietnam era. Code status showed 78% with full codes; this included 74% of white and 80% of black patients, respectively. When questioned, “What brings you joy?” 44% of patients highlighted the significance of family and friends, with responses like, “I want to see my kids get married.” To the question, “What would make tomorrow a great day for you?” 44% of patients mentioned good health, offering remarks such as, “waking up in the morning with no pain.” 41% of the patients were identified as having high-risk medication use, with 36% subsequently undergoing de-prescribing. SLUMS test was administered to 10 patients, and the PHQ-2 was conducted for all participants. Additionally, the ‘Timed Up and Go’ test was completed by 14 patients, yielding an average score of 12.8. Physical therapy referrals were made for 2 patients.

Conclusions: Our VA outpatient clinics have adopted an age-friendly care model guided by the 4M framework with prioritizing patient preferences, careful medication management, mental health screenings, and maintaining physical function and were recognized as “Committed to Care Excellence.” This has led both the Spinal Cord Injury Center and Emergency Room to set age-friendly certification as a Fiscal Year 2024 goal.

**C195 Resident Presentation
Optimizing guideline-based COPD pharmacotherapy at two ambulatory geriatric clinics**

A. V. Reigh, E. Mohan, H. Sakely. *UPMC, Pittsburgh, PA.*

Background:

Chronic Obstructive Pulmonary Disease (COPD) is associated with significant morbidity and mortality and optimized management is necessary to slow disease progression and improve patient outcomes.¹ In November 2022, the Global Initiative for Chronic Obstructive Lung Disease issued an updated strategy for COPD pharmacologic management based on patient symptoms and exacerbation risk.² The objective of this project was to optimize the pharmacologic management of COPD at two ambulatory geriatric clinics in accordance with updated guidelines.

Methods:

This qualitative improvement study included patients with a diagnosis of COPD who had a primary care provider (PCP) at one of two ambulatory geriatric clinics study. A clinical pharmacist embedded in the geriatric clinics screened each patient’s outpatient medication fill history and an electronic health record (EHR) generated quality measure report. The quality measures reviewed were: No evidence of active bronchodilator prescription, maintenance therapy non-adherence, and opportunities to optimize maintenance therapy. A pharmacist telephonically contacted patients identified as potentially non-adherent and those without an active bronchodilator prescription. Recommendations for refills, alternative therapy, or further follow-up were communicated to the patient’s PCP. The primary outcome is the number of pharmacist-identified opportunities to optimize COPD pharmacotherapy. Descriptive statistics were utilized to evaluate data.

Results:

Of the 44 patients included, 75% were found to have no evidence of active bronchodilator prescription and 11.4% were on maintenance therapy not recommended by current guidelines. A total of 10 patients (22.7%) were identified as potentially non-adherent to maintenance therapy, two of which had a COPD exacerbation leading to hospitalization in the preceding 12 months.

Conclusions:

Pharmacists’ identification of care gaps and subsequent intervention can lead to improvement in patient adherence and guideline-based prescribing, positively impacting patient care and promoting a collaborative practice model.

References:

Chronic Obstructive Pulmonary Disease (COPD) Data and Statistics. Centers for Disease Control and Prevention. <https://www.cdc.gov/copd/data.html>.

Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for Prevention, Diagnosis and Management of COPD: 2023 Report. <https://goldcopd.org/2023-gold-report-2/>.

**C196 Resident Presentation
Comparing the Performance of a VA Teleconsult Dementia Service to Dementia Care Quality Standards**

J. Mistry,^{2,1} J. Leja,^{2,1} L. Welch,¹ L. Clark,^{1,2} S. Barczi.^{1,2} *William S Middleton Memorial Veterans Hospital, Madison, WI; 2. University of Wisconsin-Madison School of Medicine and Public Health, Madison, WI.*

Background

The GRECC Connect (GC) interdisciplinary teleconsult service offers a unique, virtual dementia co-management model between rural primary care providers and geriatric specialists for vulnerable, rural Veterans with multi-complexity. This study aims to describe program performance in achieving quality standards published within established dementia care guidelines.

Methods

Veterans with 5 or more encounters were identified because the initial 3-4 encounters focused on the diagnostic process with subsequent encounters representing co-management for memory care needs. Retrospective chart review was completed, and descriptive statistics (frequencies) were used to assess program adherence to consensus dementia care guidelines (VHA DPI 2021, AMA-AAN 2016, AAFP 2019).

Results

Between 2013-2023, 45 Veterans had a minimum of 5 telemedicine encounters (9% of the total sample of 497 Veterans). The GC program met 100% of the VHA dementia performance indicators (2021) and 78% of the AMA-AAN (2016) and AAFP (2019) guideline standards. The proportion of Veterans who received recommendations shared by the 3 guidelines included: neuropsychological testing (100%), functional assessment (100%), caregiver support/education (67%), advanced care planning (56%), screening/treatment of BPSD (49%), chronic pain management (49%), and pharmacologic treatment of dementia (55%).

Unique standards to the VHA guideline included care coordination (physical therapy 49%, occupational therapy 33%, visiting nurse services 31%). Unique to AMA-AAN and AAFP included formal safety and driving evaluations—neither of which were consistently addressed.

Conclusions

The GC program delivered high-quality, virtual dementia care in line with published standards for a rural population. Limitations included a predominantly white male VA population, lacking diversity in race and ethnicity. Additionally, only 9% of the total sample was included in this analysis, however, this subpopulation likely represented medically complex and vulnerable Veterans residing in rural settings. These findings suggest potential areas for improvement to enhance our workflows by redesigning our current team-specific documentation, thereby better integrating these standards.

C197 Resident Presentation

Quality improvement intervention to systematize fall risk assessment and prevention in older hospitalized adults: A mixed methods study

J. Stuby,¹ P. Leist,¹ N. Hauri,¹ S. Jeevanji,² M. Méan,² C. Aubert.^{1,3}

1. General Internal Medicine, Inselspital Universitätsspital Bern, Bern, Switzerland; 2. Internal Medicine, Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland; 3. Institute for Primary Healthcare (BIHAM), Universität Bern, Bern, Switzerland.

Background: Fall-prevention interventions are efficient but resource-requiring and should target persons at higher risk of falls. Thus, we must ensure that the risk of falls is systematically assessed in daily practice.

Methods: We conducted a quality improvement (QI) intervention to systematize fall risk assessment and prevention in older adults hospitalized on general internal medicine wards. We assessed the feasibility and acceptability of the intervention through a mixed methods process evaluation. The QI intervention targeted nursing staff and residents in two tertiary hospitals of two different language and cultural regions of Switzerland. The intervention comprised an oral presentation, an e-learning, and reminder quizzes. We conducted a process evaluation including interviews and a survey to assess feasibility and acceptability of the intervention. We analyzed quantitative data descriptively and approached qualitative data with a mixed deductive and inductive method. We integrated the results through meta-inferences.

Results: Among 544 clinicians, participation rate for the intervention was 86% for the German-speaking hospital and 45% for the French-speaking hospital. For the process evaluation it was 39% and 6%, respectively. The oral presentation, e-learning, and quizzes were evaluated as useful by 78%, 64%, and 67% of clinicians, respectively. Twenty-five percent of clinicians reported an increase in interprofessional team working. The e-learning was evaluated as too long by 14% of clinicians, and as too short by 13%. Nine percent of nurses found the quizzes too long, 20% perceived them as too short. A reward system, offering the nursing staff a chance to win one of five 10.2" iPads upon completing e-learning and all quizzes, was deemed motivating by 33% of clinicians. Main implementation barrier was the high workload. Concise and clear content, as well as regular reminders were perceived as facilitators.

Conclusions: A concise and multimodal QI intervention with regular reminders was feasible and well-accepted. Future QI intervention projects should consider the barriers and facilitators identified in this project to improve quality of care in older hospitalized adults.

C198 Resident Presentation

Standardizing pharmacist-led appointments to expand access to patient care

E. Marker,¹ H. Sakely,¹ B. Proddutur.² 1. Pharmacy, UPMC Saint Margaret, Pittsburgh, PA; 2. Geriatrics, UPMC Saint Margaret, Pittsburgh, PA.

Background:

Clinical pharmacy services in the ambulatory care setting have grown rapidly, from 18.1% of health systems employing a pharmacist in their clinics in 2010, up to 46.2% in 2020. The shape and breadth of these responsibilities increased as well¹. This quality improvement project, performed at two geriatrics-focused primary care clinics, seeks to align the pharmacists' workflow with current ambulatory care standards, utilizing tools in the electronic medical record (EMR) which reduce inefficiencies in scheduling to increase patient access to pharmacy services.

Methods:

Physicians were asked to enter a formal Pharmacy Consult in the EMR for clinical pharmacists' services. Examples included protocolized anticoagulation services, chronic disease care management, and as-needed drug information questions. Templates were created in the EMR for one 1-hour "Medication Management" in-clinic

appointment slot and four 30-minute telemedicine appointments on two half-days per week per pharmacist. Medical assistants, nurses, and pharmacists were all able to schedule patients for these "Medication Management" appointments. The process was evaluated and revised on a monthly basis after implementation. Outcomes evaluated include number of new consults submitted through the EMR and in-person pharmacist-led visits scheduled.

Results:

The two pharmacists maintained a panel of 58 patients in total, primarily through telephone encounters. From January through November 2023, 12 in-person pharmacy visits were also performed on nine unique patients. It is anticipated that this intervention will increase the number of in-person and face-to-face virtual patient visits with pharmacists by making outreach and scheduling more efficient.

Conclusions:

Implementing a formal pharmacy consult process allows for quantitative measurement of pharmacists' capacity and increases provider awareness of pharmacist workload. Instituting a process for staff to assist in scheduling pharmacist-led visits was associated with an increase in number of visits performed. Teaching clinics benefit from aligning with not only current standards of medical care but also workflow management.

Reference:

K Bakken B, Bozyski KM, Foster B, et al. Ambulatory care pharmacy practice: Findings from the 2019 National Pharmacist Workforce Survey. *Am J Health Syst Pharm.* 2023;80(5):284-295.

C199 Resident Presentation

The Role of Geriatric Consultation in Reducing Rate of In-Person Constant Observation

J. Pinsker,² Y. Zweig,¹ J. Lai,² N. Sacks,¹ Q. Wong,¹ M. E. Rau.²

1. NYU Langone Health, New York, NY; 2. New York University Grossman School of Medicine, New York, NY.

Background: In-person constant observation (CO) is initiated by nursing for clinical concerns such as falls or interference with treatment and can contribute to higher staffing costs and increase length of stay (LOS). Meanwhile, the value of CO on safety outcomes remains unclear. Herein, we investigate the effect of early Geriatric consultation (GC) in reducing CO use for adults over age 65 on an inpatient medicine unit.

Methods: For a 3 month pilot period, Geriatric consultation service (GCS) will evaluate patients >65 yo on CO for <24 hours on a 19-bed inpatient medicine unit. Exclusion criteria includes suicidal ideation, elopement risk, or inpatient hospice. The GCS will complete a consultation with recommendations and huddle with the nurse manager and bedside RN. The primary outcome is discontinuation of CO and CO status after 48 hours; secondary outcomes include LOS, falls, behavioral emergency response team (BERT) activation, antipsychotic and benzodiazepine use. Charts will be reviewed to assess interventions in 4 domains: behavioral modifications, clinical re-classification of risk, re-definition of goals of care, and pharmacologic interventions.

Results: After 1.5 weeks, 4 patients on CO received a GS. Average age was 78 and all were a fall risk; 4/4 carried a dementia diagnosis, 3/4 had a screen for delirium, and 2/4 had at least one BERT during admission. During their hospital stay, three-fourths of patients received antipsychotics and half received benzodiazepines. After consultation, two patients were downgraded to video CO, and at 48 hours remained off CO. Intervention domains included behavioral modification and re-classification of risk. Data collection is ongoing.

Conclusions: We hypothesize that proactive GS will be associated with de-escalation of CO in older adults during hospitalization without an increase in adverse events compared to baseline events on similar units. This brief ongoing pilot suggests potential value in the role of GC in reducing CO use, minimizing cost, and identifying key interventions important in the care of older adults.

C200 Resident Presentation
Improving Care Transitions between an Academic Hospital and Affiliated Nursing Home Using Telemedicine

X. Li,¹ E. B. Coskun.² *1. Internal Medicine, NewYork-Presbyterian Weill Cornell Medical Center, New York, NY; 2. Division of Geriatrics and Palliative Medicine, Weill Cornell Medicine, New York, NY.*

Background

Transitions of care at the time of admission and discharge are critically important, especially for older adults. Errors on the medication reconciliation can put patients at risk for complications during the hospitalization or readmission after discharge. With cognitively impaired patients, not understanding their baseline functional and mental status on admission can lead to delayed diagnosis or unnecessary work-up and treatment. Communicating directly with the hospital or nursing home provider can help avoid miscommunications and errors.

Methods

Weill Cornell (WC) recently established a partnership with the skilled nursing facility across the street, Mary Manning Walsh (MMW). Our hospital does not share the same electronic health record (EHR) as MMW. Patients are sent from the nursing home with limited printed records, but these do not provide all necessary information to care for the patient during their hospital stay. We developed a protocol for a structured phone handoff between the inpatient and nursing home providers within 12 hours of admission and discharge using the 4Ms framework. This will serve two purposes: to improve quality of patient care and educate internal medicine residents on the importance of care transitions. Data will be collected on patients receiving a care transition call including medication changes/errors, documentation of mental and functional status, incident delirium, 30-day readmission, and mortality. The protocol will be adjusted in iterative cycles using a quality improvement framework.

Results

We collected baseline data on patients transferred from WC to MMW over a 2-month period. 62% (24/39) of skilled nursing facility patients at MMW who required admission were sent to WC. Of the patients discharged to subacute rehabilitation from WC, 81% (29/36) were admitted to MMW. Average age of patients transferred from WC to MMW was 83 years, and from MMW to WC was 85 years.

Conclusions

Patient transfers between WC and MMW are very common, but communication between the two institutions is limited by lack of shared EHR or standard communication protocols. A structured telemedicine interview between providers at admission and discharge will be conducted while monitoring outcomes with the goal of improving care transitions.

C201 Student Presentation
Percutaneous Coronary Intervention Overcomes Age-related Risk for Inpatient-onset STEMI Mortality

J. E. Jones, R. C. Patel, G. A. Stouffer. *Division of Cardiology and McAllister Heart Institute, University of North Carolina, Chapel Hill, NC.*

Background:

Patients who experience ST-elevation myocardial infarction (STEMI) while hospitalized for a noncardiac condition (inpatient STEMI; IPS) have higher mortality than patients who have the onset of STEMI in an outpatient setting (outpatient STEMI; OPS). It is not known whether the differences in outcomes between IPS and OPS vary by age.

Methods:

A retrospective analysis of adult STEMI patients in the New York Planning and Research Cooperative System (SPARCS) database from 2011 to 2018 was performed with present-on-admission ICD-9/10 codes used to identify IPS vs OPS. Patients were grouped by age: <65, 65-74, and ≥75 years. Demographics, comorbidities, treatments, and mortality outcomes were compared between IPS and OPS using chi-square. A logistic regression was created to evaluate risk factors for IPS mortality adjusting for sex, race, ethnicity, obesity, diabetes mellitus, hyperlipidemia, smoking status, and treatment with PCI.

Results:

Among 64,960 STEMIs, 4.4% were IPS. Adults ≥75 years represented 51.6% of IPS but only 19.7% of OPS. Females, White, hypertension, chronic kidney disease and chronic obstructive pulmonary disease increased, whereas smoking and obesity decreased, with age for both IPS and OPS. Patients with IPS were 5.3 times less likely to receive percutaneous coronary intervention (PCI) compared to OPS (p<0.001) with a decreased use of PCI by age for both IPS and OPS. Mortality for IPS was 8-fold higher in patients <65 years, 4-fold higher in ages 65-74 years, and 2-fold higher for those ≥75 years (p<0.001) compared to OPS. In multivariate logistic regressions, age was significantly associated with mortality only in those ≥75 years when adjusted for sex, race, ethnicity, obesity, diabetes mellitus, hyperlipidemia, smoking status, and treatment with PCI (OR 1.34, 95% CI 1.20 – 1.49). PCI was associated with improved survival of IPS in all age groups (OR 0.23, 95% CI 0.14 – 0.38 for <65; OR 0.17, 95% CI 0.10 – 0.29 for 65 to 74 years; OR 0.24, 95% CI 0.16 – 0.36 for ≥75 years).

Conclusions:

Advanced age (e.g., ≥75 years) was associated with increased mortality from IPS. Younger individuals (e.g., <65 years) had the largest relative difference in mortality for IPS vs OPS. PCI was the only factor that predicted survival in all age groups, and individuals who underwent PCI experienced similar survival post-IPS regardless of age.

C202 Resident Presentation
Increase in influenza mortality rate in the older population: a longitudinal epidemiological study from the WHO Mortality Database

K. Harada,¹ H. Hagiya,² T. Koyama.³ *1. Department of Medicine, Mount Sinai Beth Israel Hospital, New York, NY; 2. Department of Infectious Diseases, Okayama University Hospital, Okayama, Japan; 3. Department of Pharmaceutical Biomedicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan.*

Introduction

Influenza is a major public health concern, causing significant morbidity and mortality worldwide, especially among older population. Despite this, limited longitudinal epidemiological research exists on influenza mortality trends.

Methods

We analyzed influenza mortality rates using vital death registration data from the world health organization (WHO) mortality database from 2001 to 2018. Long-term trends were assessed for WHO member countries and for regional groups. We used a locally weighted scatterplot smoothing (LOESS) curve, weighted by the size of the country's population to show global trends in crude and age-standardized mortality rates.

Results

Sixty-five countries met the inclusion criteria. The LOESS estimates showed that global influenza mortality rate increased from 0.19

deaths per 100,000 population (95% confidence interval, 0.14 to 0.25) in 2001 to 0.76 deaths per 100,000 population (95% confidence interval, 0.70 to 0.81) in 2018. In all regions, the mortality rates surged among people aged 70 years or older. The LOESS curve for 2009–2018 showed that the age-standardized mortality rate has been increasing in Western Europe, North America, and the Western Pacific. Regarding income level, the increase has been more pronounced in high-income countries.

Conclusions

Our study showed that international influenza mortality has increased substantially since 2009, especially among the older population. To further promote multidisciplinary actions for the reduction of influenza mortality, multi-layered infection prevention measures at the community, healthcare facility, and government levels are indispensable, especially in countries with current and future aging populations.

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