

ABSTRACTS

Abstracts from the 2026 Annual Scientific Meeting of the Canadian Geriatrics Society

Reimagining Geriatrics: Science, Practice, Impact; April 23–25 2026; Montreal, Quebec

<https://doi.org/10.5770/cgj.29.962>

FINALISTS FOR THE WILLARD AND PHOEBE THOMPSON AWARD

Assessing the Coverage of the Canadian Geriatrics Society Aging Care 5Ms Competencies for Canadian Medical Schools

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Background/Purpose: Older adults are the fastest-growing population in Canada and have complex health care needs. Although nearly all physicians will care for older adults during their careers, education in older adult medicine remains variable. In 2024, the Canadian Geriatrics Society (CGS) published 33 Aging Care 5Ms Competencies across seven themes to define essential foundational competencies. This study examined the extent to which these competencies are currently addressed in Canadian undergraduate medical curricula.

Method: A cross-sectional online survey was distributed to individuals involved in geriatric education and curriculum development at all 18 Canadian medical schools and regional campuses. Participants were identified through publicly available information and personal networks. The survey was open from June 16 to November 14, 2025, with weekly reminders. Quantitative data was analyzed with descriptive statistics.

Results: Thirty-three responses were received, with 23 analyzable responses representing 17 medical schools. Complete data was obtained from 15 schools. Overall coverage across the seven competency themes ranged from Aging (90.2%) to Matters the Most (69.1%). While foundational geriatrics concepts were widely covered, clinically relevant gaps were identified. Eight competencies were addressed by more than 90% of schools, and only one on healthy aging, health promotion, and prevention (#2) was universally covered. Four

competencies were covered by fewer than 60% of schools, with the lowest coverage observed for safe transfers of care (#10B, 42.1%).

Discussion: This study highlights both strengths and gaps in geriatrics education in Canadian medical schools and can inform targeted curriculum improvements to better prepare graduates to care for Canada's aging population.

Optimal Care of the Older Injured Patient: A Canadian Survey of Resources, Processes, and Structures

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Background/Purpose: To support effective implementation of best practice guidelines in geriatric trauma care, the American College of Surgeons Verification, Review and Consultation Program outlines nine required resources, structures, and processes in the Resources for Optimal Care of the Injured Patient. This study evaluated the availability of these resources across Canadian trauma centres.

Method: We conducted a national cross-sectional survey, available in English and French, of trauma program coordinators at all adult Level I and II trauma centres in Canada. The survey comprised nine items aligned with the American College of Surgeons recommendations. Responses were coded using a standardized scheme, and subgroup analyses were performed by province.

Results: Twenty-four of 30 trauma centres (80%) responded. While 63% reported access to a geriatrics clinician to support protocol development, implementation, and patient consultation, only 38% had a formal protocol to identify patients who would benefit from geriatrics involvement. Protocol

availability varied by domain: medication review (67%), frailty identification (46%), dementia/delirium/depression management (50%), goals-of-care documentation (42%), mobilization (54%), care transition planning (50%). Only 46% had a hip fracture treatment guideline. Substantial provincial variation was observed, with Ontario centres demonstrating the highest overall resource availability.

Discussion: This study identified the gaps and provincial variation in the resources, structures, and processes required to implement best practice guidelines in geriatric trauma care across Canada. Targeted quality improvement efforts should prioritize the dissemination of frailty identification protocols and standardized screening processes to identify older adults with traumatic injury who would benefit from timely geriatric consultation.

Is Equity Considered in Systematic Reviews of Interventions for Frailty in Older Adults?

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Background/Purpose: Older adults' outcomes and responses to frailty interventions vary by health equity factors (e.g., age, sex, social determinants). Personalizing and scaling interventions requires transparent reporting of these factors and whether effects differ across groups. We assessed the quality and extent of equity reporting in systematic reviews (SRs) of frailty interventions.

Method: We systematically searched MEDLINE, Embase, Global Health, Healthstar, and PubMed from inception to January 2025 for SRs evaluating interventions for frailty. Citation screening and data abstraction were conducted in duplicate. We used the PROGRESS-Plus framework to identify reporting of health equity factors and AMSTAR-2 to assess SR quality. We recorded whether each factor was present in included-study descriptions, results, and discussion, and summarized the number of factors reported per SR.

Results: Of 2945 records screened, 66 SRs were included. Only 6 SRs (9%) reported more than three PROGRESS-Plus factors across all criteria. Reporting was almost exclusively limited to age (n=59, 89%), place of residence (n=56, 85%), and gender/sex (n=41, 62%). Occupation, religion, education, socioeconomic status, and social capital were never reported. Although 65 SRs (98%) described participants using ≥1 PROGRESS-Plus factor, only 23 (35%) reported factors in the results, and 49 (74%) discussed implications. Methodological

quality was unrelated to the number of reported factors (Spearman Rs=0.12, 95% CI 0.12-0.36, p=0.32).

Discussion: SRs of frailty interventions report limited health equity characteristics of participants and their impact. It is unclear whether there are inequities in adverse outcome risks, intervention effectiveness. More consistent equity-focused reporting is needed to guide equitable frailty interventions.

Accuracy of Health Literacy Estimation in Clinicians and Caregivers of Older Adult Patients in a Geriatric Clinic: A Cross-Sectional Study

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Background/Purpose: Inadequate health literacy affects 60% of Canadians and is linked to poor health outcomes. Yet, it is rarely assessed in routine care. This study evaluated the accuracy of clinicians and caregivers in estimating the health literacy of older adults.

Method: Patients aged ≥65 years and their caregivers were recruited at a geriatric clinic in Hamilton, Ontario. Patient health literacy was measured using the validated BRIEF questionnaire (categorized as adequate, marginal, inadequate) using a patient interview and compared with clinician and caregiver estimates for agreement. Ordinal logistic regression analysis was used to identify factors associated with literacy categorization (higher odds ratio [OR]=predictive of lower health literacy).

Results: Of the 104 patients assessed (mean age 81.0 ± 7.8 years), 29.8%, 25.0% and 45.2% had adequate, marginal and inadequate health literacy, respectively. Clinicians correctly identified patients' health literacy in 55.4% of cases but overestimated 29.7% of cases. Caregivers were accurate in 51.5% of cases but underestimated in 37.1%. Demographic factors (age, sex, education) were not significant predictors of health literacy. A dementia diagnosis was not associated with lower health literacy by validated assessment (OR 1.42, 0.68-2.99), but was associated with lower health literacy when estimated by clinicians (OR 4.70, 2.12-10.86) and caregivers (OR 6.01, 2.40-15.61).

Discussion: Clinicians and caregivers frequently misjudge older adults' health literacy. Both clinicians and caregivers underestimated patients' health literacy in the presence of dementia. Future studies should explore ways to assess health literacy in geriatric settings to fully engage patients in health-care decision making.

National Preventive Health Programs for Older Adults Across OECD Countries: A Descriptive Policy Analysis

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Background/Purpose: National preventive health programs tailored to older adults are critical to promoting healthy aging, which is a key goal of the Organisation for Economic Co-Operation and Development (OECD). The aim of this study was to determine the national-level preventive health programs for older adults across OECD countries and to describe cross-national patterns in key clinical domains.

Method: A descriptive cross-national policy analysis was conducted as part of a scoping review. A structured environmental scan identified national preventive health programs targeting adults aged ≥ 65 years in all 38 OECD countries. We included documents published from 2011 to 2025 and did not restrict by language. Data were extracted using a standardized framework. We adhered to relevant parts of the RADAR-ES framework for conducting environmental scans.

Results: We found 284 preventive health documents across 38 countries. All 38 countries had at least one national program explicitly targeting older adults. Countries most frequently focused on vaccination (n=38, 100%) and cancer screening (n=38, 100%). Far fewer countries had national programs targeting older adults for any cardiometabolic screening (n=17, 44.7%), any osteoporosis assessment (n=9, 23.7%), frailty (n=5, 13.2%), falls prevention (n=5, 13.2%),

cognition or dementia (n=4, 10.5%), or psychiatric conditions (n=2, 5.3%).

Discussion: Among OECD countries, national preventive health programs for older adults focus on routine vaccination and major cancer screening, with limited systematic focus on geriatric syndromes and mental or cognitive health. These findings highlight opportunities to expand evidence-based policies to address a greater range of health issues for our aging population.

Factors Associated with First Onset of Homelessness in Late-Life and Transition to Stable Housing Among Older Adults with Experience of Homelessness: A Cross-sectional Analysis

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Background/Purpose: Among older adults experiencing homelessness (OAEH), timing of first homelessness and success in transition to stable housing may reflect distinct clinical and social subgroups. We identified factors associated with first onset of homelessness in late-life and transition to stable housing among OAEH.

Method: We performed a cross-sectional analysis of OAEH assessed by the St. Michael's Hospital Geriatric Outreach Team in Toronto, Ontario between 2020 and 2025. We defined first onset of homelessness in late-life as occurring at or after age 50 years; late-life homelessness and transition to stable housing were modeled as binary outcomes. Multivariable logistic regression models were constructed using univariate screening ($p < 0.2$ for late-life homelessness; $p < 0.3$ for housing success), followed by multivariable assessment, with variables retained based on clinical relevance or evidence of confounding.

Results: Of 219 OAEH, 214 were included in the timing of homelessness analysis and 199 in the transition to stable housing analysis. Female (vs male) sex (odds ratio 6.19, 95% confidence interval 1.74-30.96), hypertension (3.83, 1.48-10.91), university education (7.91, 2.37-28.77), and absence of traumatic brain injury (4.16, 1.35-13.47) were associated with higher odds of first onset of homelessness in late-life compared to early-life. Having family or friend support (2.34, 1.16-4.81) and absence of traumatic brain injury (3.00, 1.08-9.11) were associated with higher odds of transitioning to stable housing.

Discussion: Select clinical and social factors were associated with timing of first onset of homelessness and transition to stable housing, highlighting opportunities for targeted identification and interventions to support these patient groups.

FINALISTS FOR THE RÉJEAN HÉBERT CANADIAN INSTITUTES OF HEALTH RESEARCH – INSTITUTE IN AGING PRIZE

Trends in Anticoagulation Prescribing for Atrial Fibrillation in Older People in Ambulatory Care in Ottawa

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Background/Purpose: Direct-acting oral anticoagulants (DOACs) have improved safety for stroke prevention yet concerns about falls and bleeding risks often lead to under-prescribing in older adults. Prior studies involved hospitalized patients, where clinicians may be reluctant to start long-term therapies.

Method: We performed a retrospective cohort study of patients aged ≥ 65 with atrial fibrillation seen in The Ottawa Hospital Geriatric Medicine Clinics from July 2019 to January 2025. Data from the clinical Datawarehouse was used to identify patients with atrial fibrillation. Extracted variables included frailty, age, sex, oral anticoagulant or antiplatelet use, history of fall, stroke, intracranial hemorrhage (ICH), and admissions for bleeding.

Results: 593/858 patients were included. 500 patients were on anticoagulation. Use of DOACs or warfarin did not differ significantly by frailty, age, history of fall, stroke, or admission for bleeding (although admission for bleeding approached significance, $p=0.0515$). Patients with prior ICH were significantly less likely to receive a DOAC ($p < 0.0001$), an association not observed with warfarin alone. 93 patients were not on anticoagulation, 49 of these were on single anti-platelet therapy and 2 were on dual. No anticoagulation was prescribed in clinic. Common reasons for withholding anticoagulation included prior bleeding/ICH, provoked AF, and fall risk.

Discussion: In this outpatient geriatric cohort, frailty and fall history did not affect anticoagulation prescribing, contrasting with earlier studies. Only patients with prior ICH were consistently less likely to receive anticoagulation.

Vaccine Uptake in Older Adults Undergoing Comprehensive Geriatric Assessment: A Report from the eFI-CGA Study

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Background/Purpose: Vaccine uptake among older adults remains suboptimal. Individuals with frailty or cognitive

decline are at particularly increased risk for morbidity and mortality from vaccine-preventable diseases. We examined influenza, pneumococcus, tetanus, and zoster vaccination status in participants of the Electronic Frailty Index/Comprehensive Geriatric Assessment (eFI-CGA) study.

Method: For 81 Nova Scotia eFI-CGA site participants, vaccination status was recorded on the geriatrician paper CGA as yes/no for being up-to-date with seasonal influenza and tetanus vaccinations, and as yes/no for prior pneumococcal or zoster vaccinations. Vaccine data were not part of the study's electronic Frailty Index data Quality Assurance process. Frailty was measured using the Clinical Frailty Scale.

Results: Mean age was 84.1 years (range 65-98). 58.0% were female. 40/81 (49%) had vaccination data; missingness not associated with sex, frailty, or cognition and was highest for tetanus (74%), followed by pneumococcus (54%), influenza (54%), and zoster (49%). 50% of respondents were vulnerable and 26% frail. 93% vaccinated for influenza, 57% for pneumococcus, 47% for tetanus, 46% for zoster. Non-frail individuals were more likely to be up-to-date with tetanus ($p=0.039$). There was no association of sex, frailty, or cognition with any other vaccine status.

Discussion: Vaccination status may be frequently missing from clinical assessments even when included on standardized clinical tools such as CGA. Potential contributors include respondents/collateral not recalling vaccination history and providers placing a lower priority on asking about vaccination status. Electronic assessments may offer an opportunity to support collection of vaccination status by directly harvesting from provider logs, pharmacy records, and vaccine registries.

Formation of Health Outcome Prioritization Clusters: A Prospective Quantitative Study

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Background/Purpose: In geriatric care, where multi-morbidity and functional vulnerability are prevalent, understanding how patients prioritize potentially competing health outcomes is essential to support shared decision-making and goal-concordant care. Outcome prioritization may facilitate clinically meaningful discussions and help align care with what matters most to older adults. To better characterize priority health outcomes, we sought to identify patient preference-based clusters according to the relative importance assigned to different health outcomes.

Method: This prospective study was conducted at the Centre Hospitalier de l'Université de Montréal (CHUM). Participants completed a sociodemographic questionnaire and rated the importance of 10 predefined health outcomes (ex: longevity, quality of life, cognition, independence, suffering avoidance) using a visual analog scale (VAS) ranging from 0 (not important) to 10 (extremely important). Latent class analysis was performed to identify clusters of outcome prioritization.

Results: A total of 150 participants, including patients and patient companions, were included, allowing the identification of four distinct clusters: maximum health (38.7%), balanced health (37.6%), severe dependency avoidance (15.7%), and cognition-mobility-suffering avoidance (8.0%). Across all clusters, including those prioritizing maximum health, longevity was consistently the least prioritized health outcome.

Discussion: These findings highlight the existence of distinct profiles of health outcome prioritization among patients. The predominance of the balanced health and maximum health clusters is consistent with common clinical observations. However, the identification of multiple clusters underscores the opportunity to discuss and to tailor care to individual patient preferences. Future analyses will examine the associations between sociodemographic characteristics, care context, and cluster membership.

Exploring Patient and Care Partner Experiences in Biomarker-Based Alzheimer's Disease Diagnosis

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Background/Purpose: Biomarkers of Alzheimer's Disease (AD) represent a paradigm shift for the diagnosis process of this condition. Despite the high accuracy and clinical impact of imaging and fluid biomarkers, access in Canada remains limited. Further research is needed to examine patient perspectives on the integration of biomarker testing, thus we explored patient and care partner experiences in a biomarker-based diagnostic study to inform future clinical practice.

Method: This qualitative study, nested within a larger observational study (BioMIND NCT06843109), explored patient and care partner experiences of the use of fluid and imaging

biomarkers in AD diagnosis. Semi-structured interviews were conducted with 24 patients and 13 care partners after receiving their diagnostic results. Interviews were audio-recorded and transcribed verbatim. Data were analyzed using thematic analysis with emergent coding.

Results: Overall participants highlighted a positive diagnostic experience included thorough information-sharing and in-person diagnosis disclosure. This fostered human connection and facilitated patient-provider communication. Clear communication was highly valued, particularly when clinicians provided detailed descriptions of tests and used visual aids to explain results. Participants expressed a need for scheduled clinical follow-up to allow time for reflection, formulate questions, and discuss next steps of disease management. Participants emphasized the importance of integrated care, and ensuring all care providers could access their results.

Discussion: Patients report positive interactions with services which use advanced biomarker testing for AD diagnosis, highlighting the impact that the extra information had on them. Prioritizing clear in-person diagnostic disclosure, ensuring adequate follow-up, and integrating care across providers can better support patient care and long-term disease management.

Association Between Results of Common Diagnostic Investigations and Potential Causes of Delirium in Hospitalized Adults: A Systematic Review and Meta-Analysis

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Background/Purpose: Evidence supporting the use of laboratory and imaging investigations in the management of delirium is uncertain.

Method: We synthesized studies describing the association between diagnostic investigations and causes of delirium, and clinical practice guideline (CPG) recommendations for delirium workup. Eligible studies included hospitalized adults who underwent investigations for the cause of delirium, had delirium and non-delirium comparator groups, and used a validated method to diagnose delirium. We included trials, cohort studies, and case-control studies. We searched MEDLINE, EMBASE, PsycINFO, CINAHL, and CENTRAL from inception until January 2024 and grey literature. Pairs of reviewers screened studies, extracted data, and appraised risk of bias with the QUIPS Risk of Bias Assessment Instrument and the AGREE II tool for CPGs. We derived standardized mean differences from random effects pairwise meta-analysis models.

Results: We included 77 studies (31,528 participants), with an overall low risk of bias. CRP, creatinine, urea, BUN, BUN/creatinine ratio, white blood cells, neutrophils, neutrophil:lymphocyte ratio, sodium, glucose, d-dimer, LDH, procalcitonin, and osmolality were associated with a statistically significant higher mean value in patients with delirium compared to those without; whereas, hemoglobin, albumin, lymphocytes, eGFR, 25-OH vitamin D, CD4 count and oxygen saturation were associated with a statistically significant lower mean value. We identified 11 CPGs; 8 recommended investigations that were not significantly different in adults with and without delirium in our meta-analysis.

Discussion: There is discordance between CPG recommendations for delirium investigations and evidence that investigation results are significantly different between patients with and without delirium. This suggests an opportunity to improve ordering appropriateness.

Diagnostic Accuracy and Validity of Scales To Measure Loneliness and Social Isolation in Older Adults: A Systematic Review

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Background/Purpose: Loneliness and social isolation are common among older adults and increase morbidity and mortality. We evaluated the diagnostic accuracy and validity of loneliness and social isolation scales used in older adults.

Method: Included studies evaluated the diagnostic accuracy and/or validity of loneliness or social isolation scales in adults aged ≥ 65 years against a comparator. Searches were conducted in MEDLINE, Embase, PsycINFO, CINAHL, and Web of Science from inception to June 4, 2025. Two reviewers independently screened studies, abstracted socio-demographic data as per PROGRESS-Plus for social determinants of health, abstracted validity metrics as per COSMIN, and assessed risk of bias using the QUADAS-2 tool.

Results: Seventeen studies (11 loneliness [n=6,541]; 6 social isolation [n=14,004]), mostly cross-sectional in design (15/17),

were included. Participants were predominantly female (62%) and from a mixed urban/rural setting (8/17). PROGRESS-Plus data were inconsistently reported. The UCLA Loneliness Scale (5/17) and De Jong Gierveld Loneliness Scale (DJGLS, 5/17) were the most frequently evaluated scales. Diagnostic accuracy was rarely reported (3/17). UCLA 6-item version was sensitive (98%) and specific (95%) against DJGLS; the 3-item version showed lower sensitivity (45%) while maintaining high specificity (93%) against a single loneliness question. UCLA versions correlated weakly-to-moderately ($r=0.24-0.64$) with loneliness scales while DJGLS correlated moderately-to-highly ($r=0.51-0.88$). Lubben Social Network Scale 18-item and 6-item versions correlated moderately to social disconnectedness ($|r|=0.49-0.58$) and weakly-to-moderately to perceived isolation ($|r|=0.29-0.65$).

Discussion: Loneliness and social isolation scales in older adults report COSMIN-based validity metrics but rarely include diagnostic accuracy evaluation against a reference standard, limiting their use as evidence-based measurement tools.

FACULTY PODIUM PRESENTATIONS

Seniors-Friendly Emergency Units: A Scoping Review to Inform ED Redesign

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Background/Purpose: Emergency departments are increasingly caring for frail older adults, yet most EDs are not designed to address geriatric risks such as delirium, functional decline, and loss of dignity. This scoping review aimed to synthesize evidence informing the design and operation of Seniors-Friendly Emergency Units (SFEUs).

Method: A scoping review was conducted in accordance with PRISMA-ScR guidance. CINAHL Complete and PubMed were searched in August 2025 for English- and Spanish-language, peer-reviewed literature focused on older adults (≥ 65 years) in emergency care settings. Supplementary expert-informed searching was undertaken. Following screening and full-text review, articles were categorized as core or contextual based on their relevance to ED-embedded seniors-friendly care. An inductive thematic mapping approach was used to synthesize core evidence across recurring domains relevant to emergency department design and operations.

Results: Forty-nine core articles were included. Eight recurring domains characterized effective seniors-friendly emergency care: frailty-informed identification and triage; geriatric assessment and care processes; cognitive vulnerability, delirium, and dementia care; environment, dignity, and experience; interdisciplinary staffing models; care transitions and

discharge planning; quality measurement and screening; and policy, system value, and scalability. Evidence consistently emphasized the importance of integrated, multicomponent models embedded within routine ED workflows rather than isolated interventions.

Discussion: The findings support seniors-friendly emergency care as a system redesign rather than a discrete program. SFEUs offer a structured framework to address predictable risks associated with aging in emergency settings. This scoping review provides an evidence-informed foundation to guide ED redesign, quality improvement, and policy development in Canadian health systems.

Evaluation of Artificial Intelligence-Generated Responses to Questions Regarding Dementia

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Background/Purpose: Large language models (LLMs) such as ChatGPT are increasingly used by patients and families to access medical information, yet evidence of their performance in dementia care is limited. This study evaluated the quality of ChatGPT and physician-generated responses to common dementia-related questions.

Method: Physician-generated and ChatGPT-generated responses were developed for five frequently asked dementia questions. People living with dementia, caregivers, and physicians with specialized training in geriatric medicine evaluated responses via an online survey. Accuracy, ease of understanding, comprehensiveness, and relevance were rated using 5-point Likert scales. Potential safety concerns were identified via a yes/no question with free-text documentation.

Results: Nonphysicians rated ChatGPT responses as more accurate (ChatGPT mean $4.03 \pm \text{SD } 1.03$ vs physician 3.78 ± 0.96 ; $P < 0.001$), easy to understand (4.04 ± 1.00 vs 3.81 ± 0.96 ; $P < 0.001$), comprehensive (3.80 ± 1.05 vs 3.39 ± 1.01 ; $P < 0.001$) and relevant (4.05 ± 0.97 vs 3.78 ± 0.86 ; $P < 0.001$). Physician respondents rated ChatGPT responses as more comprehensive (4.05 ± 0.98 vs 3.34 ± 1.08 ; $P < 0.001$), and relevant (4.27 ± 0.68 vs 4.06 ± 0.81 ; $P = 0.011$). Most raters reported no safety concerns, with no difference between ChatGPT and physician responses.

Discussion: ChatGPT-generated responses to common dementia questions were rated as comparable or superior to physician-generated responses across multiple quality domains by both physicians and nonphysicians. These

findings support the potential role of LLMs as supplementary information tools in dementia care and highlight the need for further studies to confirm reproducibility and explore caregiver perspectives.

Effects of Intrinsic Capacity and Body Composition Phenotypes on Functional Disability and Poor Quality of Life in Adults Aged 50 Years and Older: Findings from the FraDySMex Longitudinal Cohort Study

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Background/Purpose: Intrinsic capacity (IC) and body composition phenotypes are key determinants of healthy aging, yet their combined longitudinal effects on functional disability and quality of life (QoL) remain poorly understood. Therefore, this study aimed to evaluate the effects of IC and body composition phenotypes on functional disability and QoL.

Method: We conducted a longitudinal analysis of the FraDySMex cohort including participants with baseline and follow-up data on IC and body composition. IC was summarized as a total score from its domains, and body composition phenotypes were classified by DXA as normal, osteopenia/osteoporosis, sarcopenia, or osteosarcopenia. Functional disability and QoL were assessed using the Lawton IADL and EuroQoL-VAS, respectively. Associations were evaluated using mixed-effects logistic regression adjusted for age, sex, marital status, and comorbidity.

Results: Among 302 participants, osteosarcopenia was associated with higher odds of functional disability ($\text{OR} = 2.4$, $p < 0.017$), whereas higher IC was protective ($\text{OR} = 0.72$, $p < 0.001$). IC was also associated with lower odds of poor QoL ($\text{OR} = 0.79$, $p = 0.009$), while body composition phenotypes were not.

Discussion: These findings indicate that IC is a central determinant of both functional disability and QoL in older adults, beyond body composition alone. This suggests that IC may be a stronger and more consistent predictor of adverse outcomes over time. Our findings support the integration of body composition assessment and IC into clinical and public health strategies to prevent functional decline and preserve QoL during aging.

FINALISTS FOR THE DR. JACK & DR. ASA AWARD

Cognitive Impairment and Driving in Older Adults: A Scoping Review

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Background/Purpose: As the aging population in Canada is growing, so does the prevalence of cognitive impairment, which raises concerns around driving safety. Driving requires intact cognitive, sensory, and motor functions. Mild cognitive impairment (MCI) has been associated with increased driving errors. Although on-road driving assessments are the gold standard for evaluating fitness to drive, they are costly and impractical for routine clinical use. The purpose of this project was to evaluate current evidence in the literature of the impact of MCI on driving performance and identify

Method: A systematic search of studies published between January 2004, and July 2024 was conducted across Medline, EMBASE, APA PsycInfo, and Ageline. Eligible studies examined the relationship between standardized neuropsychological tests and driving performance in older adults with cognitive decline.

Results: Forty-five studies met the inclusion criteria. Most common cognitive assessments included the MMSE (68.9%), CDR (13.3%), and MoCA (13.3%). Executive dysfunction, impaired visual attention, and reduced processing speed were key factors in driving impairment. Individuals with MCI showed more lane deviations and navigation errors, though some used early compensatory strategies. Drivers with MCI may self-regulate their driving by avoiding complex road conditions or driving at slower speeds.

Discussion: Cognitive impairment affects driving performance. Early screening and standardized assessment methods integrating cognitive testing with real-world evaluations are essential for identifying at-risk drivers.

Management and Outcomes of Responsive Behaviours in Hospitalized Older Adults: A Retrospective Chart Review

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Background/Purpose: Responsive behaviours commonly occur in hospitalized older adults, but there is little literature describing the course in acute care settings. This study examined the management and outcomes of responsive behaviours in acute medical care.

Method: We conducted a retrospective chart review of patients aged ≥65 years admitted to acute medicine wards at an academic hospital in Hamilton (Canada) identified as having responsive behaviours between 2019 and 2021. Consecutive charts of patients admitted during two three-month periods were screened using a literature-informed keyword search of electronic medical records followed by manual chart review to confirm an episode of responsive behaviour. Data were extracted by two reviewers independently. Outcomes included in-hospital mortality, discharge destination, falls and incidence of delirium assessed by the CHART-DEL method.

Results: Of 174 charts reviewed, 67 patients had responsive behaviours. The mean age was 83.6 years, 48% were male, 60% had baseline dementia and 16% were admitted from long-term care (LTC). The most common behaviours were yelling (45%), bed exiting (36%) and inability to settle (36%). A bedside physician assessment occurred in 24% of cases. Non-pharmacological strategies were documented in 30% of patients. In this group, 42% died in hospital, 53% were discharged to LTC, 63% had delirium, and 37% had an inpatient fall.

Discussion: Responsive behaviours in hospitalized older adults confer a serious risk of mortality and institutional care and are frequently managed without non-pharmacological interventions. A systematic and evidence-based approach to the management of responsive behaviours in hospitalized older adults is urgently needed.

Association Between Positive Delirium Screen and Percentage of Meal Consumed by Hospitalized Older Adults

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Background/Purpose: Delirium is a common under-recognized condition in hospitalized older adults despite various easy to

use screening tools having been developed. This highlights the potential role of complementary indicators of delirium risk such as an ultrabrief screen based on meal intake. As such, we aimed to investigate the association between a positive delirium screen using the 4AT and the percentage of meal consumed by hospitalized older adults.

Method: This was a prospective cohort study carried out in two inpatient medical units. All patients admitted to the participating inpatient units were eligible. Delirium was screened by administering the 4AT. Nutrition was assessed by observing the percentage of meal consumed. Adequate intake was defined by at least 75% of meal consumed. The association between delirium and nutrition was investigated by chi-squared test.

Results: A total of 76 patients were included in the study. The mean age was 73.9. For patients who completed a 4AT, 27 (38.6%) screened positive for delirium. 4AT data was missing for 6 participants. Of those who screened positive for delirium, 57.5% had adequate intake compared to 77.2% of those who screened negative. Patients who screened positive for delirium were less likely to have adequate intake ($p=0.045$).

Discussion: Patients admitted to inpatient medical units who screen positive for delirium are less likely to have adequate oral intake. At the study hospital, percentage of meal consumption has potential as a complementary indicator of delirium risk and identifies a future target for delirium intervention and prevention.

The Effects of Pitch Deepening on Audibility in Age-Related Hearing Loss

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Background/Purpose: Patients with presbycusis are less sensitive to high-frequency sounds. As a result, care providers have been counselled to speak in a lower pitch with older adults. We tested whether this recommendation increases speech audibility in presbycusis.

Method: Thirty-one women provided standardized recordings of baseline and deepened-pitch speech. For each recording we calculated the Speech Intelligibility Index – the proportion of speech sounds exceeding standardized presbycusis thresholds. We also compared the speech rate, fundamental frequency, and long-term averaged speech spectra (LTASS) of the two recording types.

Results: There was no difference in Speech Intelligibility Indices between the pitch conditions, $t(31)=0.55$, $p=0.40$. Visual inspection of the LTASS showed no apparent shift

of vocal energy from high to mid or low frequency bands with pitch deepening. Rather, participants lowered their fundamental frequency (i.e., rate of vocal cord vibration) from 183.4 Hz (SD 23.1) to 167.6 Hz (SD 23.8), $t(30)=-5.03$, $p < 0.001$. Speech rate was slower in the deep-pitch recordings, $t(31)=6.40$, $p < 0.001$; Cohen's $d=0.69$.

Discussion: Our findings suggest lowering vocal pitch does not meaningfully shift high-frequency speech sounds into an audible range for age-induced hearing loss. These higher sounds are made by the lips, teeth, and tongue and so their frequency is not directly lowered by relaxing the vocal cords to deepen perceived vocal pitch. However, pitch lowering was associated with spontaneously slower speech, and further research might explore whether it cues other features of clear speech.

Physical Performance Measures Amongst Older Adults with Movement Disorders Cared for in a Multidisciplinary Geriatric Movement Disorder Clinic

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Background/Purpose: In Canada, most people living with Parkinson Disease and Atypical Parkinsonian Syndromes are older than 65 and have geriatric syndromes. Geriatricians and Multidisciplinary Geriatric Teams are uniquely equipped to meet their complex needs. Our hospital recently developed a Multidisciplinary Geriatric Movement Disorder Clinic (MGMD) for patients aged 65 and older with movement disorders. Here, we evaluate longitudinally, the physical performance measures of patients attending the clinic.

Method: We conducted a retrospective evaluation of the MGMD. During the initial visit, a comprehensive geriatric assessment was completed. Collaborative follow-up visits were completed with a Geriatrician, RN and physiotherapist who recorded: (1) 6-metre walk test (6MWT), (2) timed up/go, (3) 5 times sit-to-stand, (4) functional reach (FR), and (5) Berg Balance Scale. Demographics, frailty and performance measures were collected through chart review. Mixed-effects linear regression models were used to examine the relationship between frailty corrected mobility over time.

Results: The mean age was 76.5 (61.8% male). Median CFS was 4. 74.3% had idiopathic Parkinson Disease. The remaining had Atypical Parkinsonian Syndromes, secondary Parkinsonism, Dementia with Lewy Bodies and Essential Tremor. Higher frailty was associated with worse physical performance. None of the functional measures statistically

declined over time. Both the 6MWT ($p=0.017$) and FR ($p=0.027$) had clinically small improvements over time.

Discussion: Geriatric multidisciplinary care was associated with stability in physical performance amongst older adults with neurodegenerative movement disorders and high prevalence of frailty. Further research is needed to assess subgroups, the impact on falls, function, emergency department visits and hospitalization.

Frailty and the Risk of Adverse Patient-important Outcomes Among Older Adults Undergoing Hip Fracture Surgeries: A Systematic Review and Meta-analysis

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¹University of Alberta.

Background/Purpose: Hip fractures due to osteoporosis are a leading cause of disability among older adults. For individuals undergoing surgical repair, frailty is associated with increased risks of surgical site infections, reoperation, and readmission to hospital. To date, however, few reviews have examined patient-important outcomes such as delirium, discharge to residential care, and long-term mortality after hip fracture surgeries. This systematic review and meta-analysis sought to quantify these perioperative and long-term outcomes.

Method: Hip fractures due to osteoporosis are a leading cause of disability among older adults. For individuals undergoing surgical repair, frailty is associated with increased risks of surgical site infections, reoperation, and readmission to hospital. To date, however, few reviews have examined patient-important outcomes such as delirium, discharge to residential care, and long-term mortality after hip fracture surgeries. This systematic review and meta-analysis sought to quantify these perioperative and long-term outcomes.

Results: Thirty-six cohort studies totaling over 774,000 observations were included. Mild frailty was associated with more than double the risk of 30-day mortality (RR=2.55, 95%CI: 1.73-3.37) while severe frailty more than tripled the risk (RR=3.65, 95%CI: 2.30-4.99). Frailty was further associated with perioperative delirium (RR=2.64, 95%CI: 1.75-3.54), increased hospital length of stay (RR=1.49, 95%CI: 1.35-1.60), discharge to nursing homes (RR=1.39, 95%CI: 1.13-1.65), and 6-month mortality (RR=4.09, 95%CI: 1.25-6.94).

Discussion: Frailty is associated with significant adverse consequences among older adults who have sustained hip fractures. However, these results need to be interpreted with caution given the presence of heterogeneity and residual confounding associated with observational cohort studies.

FINALISTS FOR THE EDMUND V. COWDRY AWARD

Associations Between Anticholinergic and Sedative Medication Burden and Dynamic Gait Parameters in Older Adults: Cross-Sectional Baseline Analysis Within a Longitudinal Deprescribing Study

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Background/Purpose: Anticholinergic and sedative medications are well-established modifiable risk factors for falls in older adults, potentially mediated by gait impairment. This study investigates associations between anticholinergic and sedative medication use and dynamic gait parameters in older adults.

Method: Community-dwelling older adults with a Drug Burden Index (DBI) ≥ 1 were included. Total DBI, and its anticholinergic (DBI-A) and sedative (DBI-S) components, were analyzed as continuous variables. Dynamic gait parameters were measured using inertial sensors during comfortable, fast, and dual-task 10-meter walk tests. The association between DBI and 17 dynamic gait parameters were assessed using separate univariate and multivariable regression models, both adjusted and unadjusted for confounders (age, sex, comorbidities, cognitive function and number of medications).

Results: Sixty-four participants (median DBI: 1.95) were included. In unadjusted models, higher total DBI was associated with lower cadence ($\beta=-3.63$; $p=0.048$) and slower gait speed ($\beta=-0.078$; $p=0.039$) at comfortable walking speed. At a faster pace, it was associated with lower cadence ($\beta=-5.46$; $p=0.004$), slower gait speed ($\beta=-0.14$; $p=0.001$), shorter stride length ($\beta=-0.09$; $p=0.008$) and longer stride ($\beta=0.05$; $p=0.006$) duration. No significant associations were observed during dual-task walking. Adjusted models yielded no significant results for total DBI, but DBI-A remained linked to longer stride duration across all three walking conditions. No associations were observed for DBI-S.

Discussion: Higher total DBI and DBI-A, were associated with gait impairments across different walking conditions. Gait assessment may serve as an early marker of medication-related functional decline, highlighting the importance of regular review of anticholinergic medications in older adults.

Patient Perspectives on Continuing Care Services Through the Lenses of Persons Living with HIV: A Qualitative Study

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Background/Purpose: As persons living with HIV (PLWH) age, understanding their values regarding continuing care services is essential for providing high-quality, patient-centred, and accessible care. This qualitative study explored the perspectives of older PLWH regarding home care and long-term care in Alberta with the aim of informing care delivery and health services that align with the needs, preferences, and priorities of this population.

Method: Using purposive sampling, we conducted semi-structured interviews with 22 persons living with HIV aged ≥50 years followed at the Southern Alberta Clinic, Calgary, Canada. The 2024 Alberta Quality Matrix for Health (AQM) framework consisting of six dimensions (accessibility, acceptability, appropriateness, effectiveness, safety, and efficiency) was used to descriptively analyze patient values and perspectives.

Results: Participants emphasized accessibility as most important, describing how timely access and geographic proximity shaped their care experiences. Another significant dimension was acceptability, reflecting participants' desire for meaningful, appropriate, and tailored healthcare services. Efficiency, which captured their views on the optimal use of resources to achieve the desired outcomes was discussed less frequently and not central to participants' values in relation to continuing care services.

Discussion: These findings emphasize the role of patient values in the delivery of continuing care services for older PLWH. There is a need to prioritize key dimensions explored in this qualitative study to promote meaningful experiences and ensure patient perspectives are integrated into healthcare planning and decision-making. Understanding the perspectives of PLWH provides invaluable insight for creating patient-centred, inclusive, and accessible continuing care services.

A Portrait of Older Adults Experiencing Homelessness in Ontario, Canada: A Population-Based Cross-sectional Study

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Background/Purpose: Population-level data on the health needs of older adults experiencing homelessness are needed as older adults are increasingly represented among people experiencing homelessness. This study describes sex-specific sociodemographic and clinical characteristics of Ontario older adults experiencing homelessness, and compares them to housed older adults who 1) reside in the lowest neighbourhood income quintile, and 2) a subset of the lowest income quintile receiving income support.

Method: We conducted a population-based descriptive study of older adults 50 years of age or older between Jan 2018 to Oct 2024 using linked health administrative data in Ontario, Canada. Housing status was identified by ICD-10 codes and housing status variables. Sociodemographic, clinical, and healthcare use characteristics were compared by housing status. Analyses were stratified by sex, age, and healthcare setting.

Results: Our cohort included 905,279 older adults (468,713 females), with 41,363 older adults (16,657 females) identified as experiencing homelessness. Compared to housed adults, those experiencing homelessness had a higher frequency of: being male (59.7% vs. 45.7%), having a history of incarceration (37% vs. 4.9%), and being diagnosed with dementia (6.8% vs. 3.7%). Homeless older adults were greater users of primary care, emergency departments, and hospitals compared to housed older adults. Among homeless older adults, females had fewer psychiatric diagnoses and were less frequent users of emergency departments than males.

Discussion: Older adults experiencing homelessness are more comorbid than housed adults, with sex differences in health conditions and health use. Interventions and healthcare delivery should be tailored to the heterogeneous clinical and healthcare needs of this population.

Role and Impact of a Pharmacist in a One-Year Pilot Project Reviewing Patients in the Older Adults with Cancer Clinic at Princess Margaret Cancer Centre

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Background/Purpose: Older adults with cancer are at greater risk of experiencing drug therapy problems (DTPs). Increasing evidence demonstrates the value of a pharmacist in geriatric

oncology clinics, but little information exists on their practical integration. Our objective is to evaluate the impact of a pharmacist review of older adults with cancer.

Method: A quality improvement pilot project integrated a pharmacist review of patients referred to the Older Adults with Cancer Clinic (OACC) at Princess Margaret Cancer Centre (Toronto). Eligibility criteria included: no existing best possible medication history (BPMH), taking 5+ medications, plan for systemic cancer therapy, or if requested by the OACC team. Outcomes included DTPs identified, time required by the pharmacists, and lessons learned. Descriptive and inferential analyses were performed.

Results: Over 49 weeks, the pharmacists reviewed 205 patients (mean age 81 years [SD 6.6]), 51.7% were male, and patients were taking 11.5 (SD 4.8) medications. Most patients (74%) were pre-treatment with a plan for systemic therapy. A total of 347 DTPs were identified. The most common DTP was adverse drug reaction. The mean pharmacist review time was 103.1 (SD 60.3) minutes per patient. DTPs did not differ by cancer site or treatment status ($p > 0.05$). Key lessons learned included the need to prioritize patients at high-risk for DTPs and better communication between team members.

Discussion: A pharmacist-integrated model for conducting BPMHs for a geriatric oncology clinic is feasible and clinically valuable. The pharmacists identified many DTPs, including those related to cancer therapies, which may contribute to safer and more informed treatment planning.

Optimizing Exercise Type and Dose for Gait Speed in Community-Dwelling Older Adults: A Systematic Review and Meta-Analysis

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Background/Purpose: Gait speed, the sixth vital sign, strongly predicts health and independence in older adults, yet the optimal exercise type, dose, and frequency remain unclear. We aimed to identify exercise prescriptions most effective for improving gait speed in community-dwelling older adults.

Method: We searched MEDLINE, EMBASE, CINAHL, and Cochrane CENTRAL for randomized controlled trials (RCTs) published between 2014–2025 investigating exercise interventions on usual gait speed in adults ≥ 60 years compared with non-active controls. We completed screening, extraction, risk of bias, and certainty of evidence in duplicate, and synthesized results through random effects meta-analysis.

Results: Of 23,411 records retrieved, 35 RCTs ($N=2,599$ participants) were eligible. Overall, exercise interventions increase usual gait speed compared with control (MD=0.06 m/s, 95% CI: 0.03-0.09, moderate certainty), exceeding the minimal

clinically important difference (0.05 m/s). Similar benefits were seen in resistance exercise (MD=0.06 m/s, 95% CI: 0.02-0.10) and three-dimensional (3D) exercises, e.g., Tai Chi, dance (MD=0.09 m/s, 95% CI: -0.05 to 0.23) with moderate certainty. Improvements with low certainty were also observed for multi-component (MD=0.08 m/s, 95% CI: 0.02-0.15) and balance exercise (MD=0.06 m/s, 95% CI: -0.02 to 0.15). Exercising three times/week (MD=0.09 m/s, 95% CI: 0.03-0.14, moderate certainty) or totaling 120-180 minutes/week (MD=0.12 m/s, 95% CI: 0.06-0.17, high certainty) produced the greatest gains.

Discussion: *Conclusion:* Resistance and 3D exercise likely improves gait speed meaningfully; other types may show benefits. Regardless of exercise type, dose and frequency are critical for optimizing healthy aging.

Prevalence and Factors Associated with the Use of Anticholinergic and Sedative Medications in Middle-Aged and Older Adults in the Canadian Longitudinal Study on Aging (CLSA)

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Background/Purpose: The use of medications with anticholinergic or sedative effects has been associated with impaired physical and cognitive function. The aim was to evaluate the prevalence and factors associated with cumulative use of anticholinergic and sedative medications.

Method: Baseline (2011–2015) and follow-up 1 (2015–2018) data from 30,097 community-living Canadians aged 45–85 years recruited by the Canadian Longitudinal Study on Aging (CLSA) were used to assess cumulative anticholinergic and sedative medication burden using the Drug Burden Index (DBI). Associations between the DBI score and sociodemographic and health factors were evaluated with multinomial regression.

Results: The mean age of participants was 63.0 ± 10.3 years and 50.9% were female at baseline. After applying CLSA's weights, an estimated 1,244,945 Canadians aged 45–85 were exposed to a DBI score ≥ 1 for a prevalence of 8.8%. In multinomial, multivariable regression analyses, females had a significantly greater exposure to $0 < \text{DBI} < 1$ for the 45–64 (odds ratio: 1.73; 95% confidence interval: 1.60-1.86) age group and to $\text{DBI} \geq 1$ for the 45–64 (1.72; 1.55-1.91) and 65–85 (1.47; 1.27-1.70) age groups. Multimorbidity was associated with greater exposure to $0 < \text{DBI} < 1$ and $\text{DBI} \geq 1$ in both age groups with the greatest OR (5.69; 5.11–6.32) for $\text{DBI} \geq 1$ in those aged 45–64.

Discussion: Approximately 1 in 4 community-living Canadians aged 45–85 years self-reported using anticholinergic and sedative medications. The high frequency of use warrants routine focus on strategies to optimize prescribing including deprescribing.

POSTERS

Comparison of the Clinical Performance of Two Plasma p-tau217 Assays in Alzheimer's Disease Diagnosis

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Background/Purpose: Plasma p-tau217 is one of the most promising blood-based biomarkers for the diagnosis of Alzheimer's disease (AD). We report on the comparative performance of two available laboratory diagnostic tests for plasma p-tau217: ALZpath p-tau 217 and Lumipulse p-tau217.

Method: A total of 170 plasma samples were collected; 55 had corresponding CSF samples, and 115 had brain autopsy-confirmed diagnosis. Plasma pTau217 was measured using ALZpath Simoa pTau217 on the Quanterix HD-X Analyzer and Lumipulse G pTau217 Plasma platform.

Results: Using pathological diagnosis as the gold standard, separate decision thresholds were established for both plasma p-tau217 assays to maximize diagnostic accuracy. For ALZpath, a lower cutoff of 0.34 ng/L achieved 95.8% sensitivity with a negative predictive value (NPV) of 90.6%, and a higher cutoff of 0.63 ng/L resulted in 95.3% specificity and a positive predictive value (PPV) of 96.6%, resulting in a 20.1% intermediate zone. For Lumipulse, a lower cutoff of 0.13 ng/L achieved 96.6% sensitivity with a NPV of 90.9%, whereas a higher cutoff of 0.37 ng/L provided 93% specificity and a PPV of 93%, resulting in 32.2% intermediate zone. Moreover, both assays demonstrated similar clinical performance and differentiated individuals with AD (ALZpath AUC=0.94; Lumipulse AUC=0.90)

Discussion: Both plasma p-tau217 assays demonstrated excellent and comparable diagnostic performance for AD. Moreover, the use of dual cutoffs causes optimal accuracy,

with a 10% higher proportion of intermediate-range values for the Lumipulse assay compared with ALZpath.

Predictive Validity of the Hospital Frailty Risk Score in New Brunswick: A Population-Based Analysis Using Administrative Health Data

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Background/Purpose: The Hospital Frailty Risk Score (HFRS) is a claims-based algorithm designed to identify older adults at risk of poor outcomes, yet its application in the Canadian healthcare context remains understudied. Previous studies have examined outcomes such as readmissions and short-term mortality. This study extends the evidence by focusing on more hospital-straining outcomes.

Method: We evaluated the predictive validity of the HFRS for frailty-related adverse outcomes among adults aged 65 years and older in New Brunswick. Linked administrative health data from 2014–2018 were accessed through DataNB Fredericton. Data were divided into three-year intervals: a two-year exposure period to calculate the HFRS and a one-year follow-up to assess outcomes. Associations between frailty risk (high, medium, and low as the reference group) and adverse outcomes, including cumulative length of stay (LOS), Alternate Level of Care (ALC), and mortality were estimated using logistic regression.

Results: Among the 57,730 observations, a clear dose-response relationship was observed. Compared to the reference group, medium-risk patients had higher odds of extended ALC stays >30 days (OR=1.89, 95% CI: 1.67-2.15), hospital stays ≥90 days (OR=2.45, 95% CI: 2.05-2.91), and 90-day mortality (OR=1.44, 95% CI: 1.32-1.58). High-risk patients had even greater risks, with ORs of 2.03 (95% CI: 1.66-2.47), 4.71 (95% CI: 3.78-5.87), and 1.87 (95% CI: 1.62-2.14), respectively.

Discussion: This study is the first to validate the HFRS for predicting ALC stays and prolonged hospitalizations (>30 days). Findings underscore the burden of frailty on hospital systems and support the use of the HFRS as a system surveillance and planning tool.

A Rare Case of Guillain-Barré Syndrome Associated with Lyme Disease in an Older Adult: A Case Report

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Background/Purpose: Guillain-Barré syndrome (GBS) is an acute immune-mediated polyradiculoneuropathy most often precipitated by infectious triggers. It typically presents with

ascending symmetrical paralysis and areflexia. Although *Borrelia burgdorferi* infection is an uncommon cause, it is clinically important, particularly in older adults where atypical presentations may delay recognition and lead to substantial morbidity.

Method: 82-year-old man, independent in basic and instrumental activities of daily living at baseline, presented to hospital with progressive lower extremity weakness. One week earlier, he had multiple emergency department visits for acute knee pain and received opioids, after which he developed constipation, urinary retention, delirium, and sleep disturbance. He later experienced increasing difficulty standing from a seated position. He reported a recent stay at a cottage and described myalgias, diaphoresis, and possible fever, though he did not recall a tick bite. Lyme serology returned positive, and doxycycline was initiated.

Results: Despite antimicrobial therapy, the patient developed rapidly ascending weakness involving lower and upper extremities with diffuse areflexia. Electromyography and nerve conduction studies were consistent with early acute inflammatory demyelinating polyneuropathy. Cerebrospinal fluid analysis revealed lymphocytosis and elevated protein. Therefore, GBS diagnosis was confirmed, and Lyme disease was considered the likely antecedent trigger. Intravenous immunoglobulin was initiated in addition to doxycycline.

Discussion: The patient demonstrated functional recovery, ultimately regaining independent mobility at discharge. This case underscores the need to consider Lyme disease as a potential precipitant of GBS in older adults presenting with acute progressive weakness and highlights the importance of early recognition and treatment of GBS to optimize outcomes in this population.

Assessing the Use of Potentially Inappropriate Medications in Older Patients in a Primary Care Clinic

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Background/Purpose: Potentially inappropriate medications (PIMs) in older adults pose health risks. We describe the prevalence of PIMs among older patients in a primary care clinic.

Method: This was a retrospective chart review of older patients (≥ 65 years) seen by 3 physicians in a primary care clinic (Alberta, Canada) from January 1, 2024-December 31, 2024. 100 patients were randomly selected; the sample size from each physician was proportional to the total eligible patients of each physician. PIMs were extracted using the 2023 AGS Beers Criteria as standard. Outcome measures included the number of medications and the prevalence of PIMs. We used descriptive statistics to summarize the data.

Results: 38, 32, and 30 patients were randomly selected from physicians A, B, and C. Age ranged from 66 to 97 years old, with a mean of 75.7 years (SD=6.82; median 75.5; n=100). 60% were females. Patients had 0-13 medications with a mean of 5.4 (SD: 3.09; median: 5). 68% of patients had at least one PIM (prevalence), 41% with 2 or more, 21% with 3 or more, and 4% with 4 or more PIMs. However, the prevalence of PIMs varied across physicians: 56.7%, (17/30), 63.2% (24/38), and 84.4% (27/32). The most common PIMs were pantoprazole (20.7%, 28/135), zopiclone (7.4%, 10/135), codeine/acetaminophen (6.7%, 9/135), lorazepam (5.2%, 7/135), and acetylsalicylic acid (5.2%, 7/135).

Discussion: The prevalence of PIMs in this study's primary care clinic is high. This underscores the need for interventions (e.g., education) to decrease PIMs among older adults seen in the community.

High Completion, Low Impact: Rethinking Quality of EPA Feedback in Residency Training

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Background/Purpose: Competency-Based Medical Education was introduced in 2017 with Western University's Geriatric Medicine Program implementing it in 2020. CBME emphasizes continuous formative feedback through observed Entrustable Professional Activities (EPAs), which are specialty-specific and designed to support progressive resident autonomy. This study aimed to evaluate the quality of written feedback in EPA assessments within the Geriatrics program, explore residents' preferred feedback styles and assess the impact of faculty workshops on feedback quality.

Method: A retrospective analysis of EPAs completed on seven Geriatrics' residents between July 1, 2020, and December 31, 2023 at Western University was conducted. Feedback quality was assessed using an established analysis tool across four dimensions: timeliness, task orientation, actionability and polarity. Resident preferences were evaluated using anonymized surveys. The impact of faculty workshops was examined by analyzing longitudinal trends in EPA quality and faculty performance.

Results: Of 582 EPAs initiated, 527 (91%) were completed. Among completed EPAs, 52% were timely (≤ 7 days) and 95% were task oriented. Regarding actionability, 55% were very actionable, 5% semi-actionable and 40% not actionable. Feedback polarity was predominantly reinforcing (79%) with 3% corrective, 9% mixed and 10% neutral. Over 97% of EPAs indicated entrustment levels of 4 or 5. Resident surveys (n=5) demonstrated a preference for feedback that was timely, task oriented, actionable and reinforcing. No sustained improvement in feedback quality was observed over time despite faculty development efforts.

Discussion: While feedback was largely task oriented, timeliness and actionability remained inconsistent. Faculty development workshops did not result in measurable improvements in feedback quality over the study period.

Unit-level Organizational Context in Relation to Responsive Behaviours Experienced by Care Aids in Long Term Care Facilities: An Atlantic Research Collaboration on Long Term Care Study

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Background/Purpose: Dementia-related responsive behaviours (RBs) are distressing for residents, friends/family and staff. How these behaviours and their experiences relate to organizational context (OC) in LTCF remains incompletely understood. We examined the prevalence of Care Aide (CA)-reported RBs in relation to unit-level OC in a sample of Atlantic Canadian LTCFs.

Method: In ARC-LTC, unit-level OC was reported by CAs using the Alberta Context Tool (ACT) domains: leadership, culture, evaluation, social capital, Organizational Slack (OS) in time, OS space, OS staff, formal interactions, informal interactions, structural resources. CA-reported RBs experienced during the last 5 shifts (yelling/screaming, verbal threats, hurtful remarks, spitting/biting, sexual remarks, sexual touching) were aggregated at unit level for dementia-specific vs. general units. Correlations between ACT domain scores and RBs were analysed using Pearson's r.

Results: Across 77 units in 48 participating LTCF, unit-level experience of specific RBs ranged from 0–100%; in all units at least 45% of CA experienced their unit's most prevalent RB. Verbal RBs were most common and sexual RBs least common. Higher scores for culture and OS staff were correlated with less experience of RBs across all categories, and higher scores of structural resources with less RBs for all but sexual touching. These correlations were driven by general LTCF units.

Discussion: Better unit-level culture, slack in staffing and structural resources showed the most consistent association with lower CA experience of RBs. Organizational context is an important consideration for wellbeing of staff and residents in LTCF, and represents a potentially modifiable risk/protective factor for experience of distressing RBs.

Mini-CGA for Frailty Identification in Community Settings: A Timely and Scalable Approach

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Background/Purpose: Frailty is a strong predictor of adverse outcomes in older adults, yet timely identification remains

challenging in community settings. Comprehensive geriatric assessment (CGA) is the gold standard but often impractical due to time constraints. Mini-CGA offers a streamlined alternative for early frailty detection and intervention.

Method: We implemented mini-CGA for 20 community dwelling older adults (>65 yrs), assessing intrinsic capacity domains – mobility, cognition, nutrition, mood and sensory function aligned with ICOPE principles. Frailty was measured by the Rockwood Clinical Frailty scale (range 1–9). Assessment time and care outcomes were compared to historical full CGA data.

Results: Mini-CGA on average required 30 mins to complete compared to 120 mins for a full CGA ($p < 0.001$). CFS scores ranged from 3 (managing well) to 6 (moderately frail), with a mean score of 4.8 ± 0.9 . Frailty was identified in 60% of cases and targeted intervention were implemented in 90% of cases. Functional outcomes and care plan were comparable to those derived from a full CGA, with no significant difference in short term functional status ($p = 0.42$).

Discussion: Mini-CGA effectively identifies frailty using CFS while reducing assessment time by 75%. This focussed approach supports proactive management and aligns with integrated care pathways, while freeing up clinician time for higher priority tasks like early intervention and prevention. Mini CGA is a feasible, efficient tool for frailty screening and management in community settings, promoting timely interventions and scalable geriatric care models. Its brevity and adaptability make it suitable for wider implementation, including digital platforms and multidisciplinary teams.

Optimize REST: A Multicomponent Intervention to Improve Sleep-in Long-Term Care Homes

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Background/Purpose: Sleep disturbances are highly prevalent in long-term care (LTC) residents, contributing to impaired gait, increased falls, depression, and functional decline. The etiology is multifactorial, encompassing individual factors such as dementia, pain and nocturia, and environmental factors such as insufficient daytime engagement and excessive nighttime noise. This study employed co-design methodology with residents, families, and staff to inform a feasible and scalable intervention for improving sleep in LTC environments.

Method: This was a mixed-methods study that combined co-design workshops with a province wide survey in Ontario. Twenty-two workshop participants included residents, family, and staff who worked both day and night shifts. An additional

430 participants completed a survey of sleep patterns, LTCH environment and intervention feasibility.

Results: Based on the qualitative and quantitative data analyzed, 4 distinct themes emerged regarding barriers to sleep in LTCH. These included excess of noise/light at night, daytime sleeping and lack of activities, pain and other types of physical symptoms interfering with sleep and anxious feelings around bedtime. Based on survey response from LTCH staff, 77.72% had received no training on sleep or circadian rhythms, while 90.30% expressed interest in receiving education. Through further engagement and iterative workshops with frontline LTCH staff and prescribers, we have codesigned a multicomponent model to address sleep in LTCHs called Optimize REST focused on improving (circadian) Rhythms, Environment, Symptoms and Training/Tools.

Discussion: Through co-design with LTC residents and staff, we developed Optimize REST, a multicomponent intervention addressing circadian Rhythms, Environment, Symptoms, and Training/Tools to improve resident sleep outcomes.

Are All Assisted Living Facilities Equal When it Comes to Emergency Department Use?

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Background/Purpose: Currently 11.6% of adults 75+ in New Brunswick live in Assisted Living Facilities known as Special Care Homes (SCHs). SCHs differ in size, location, level of care, and language. Little is known about how often SCH residents use the Emergency Department (ED). Even less is known if specific characteristics of SCHs matter.

Method: All ED visits (that did not result in an admission) to regional hospital EDs by SCH residents between Jan-Dec 2023 were identified. Descriptive statistics were used to describe each SCH by level of care, size, language and location. The sample was stratified by the number of ED visits/bed/yr for each SCH and the homes were classified as low/medium/high intensity users.

Results: There were 230 SCHs (4481 beds) in the study with only 40.4% of SCHs utilizing an ED. There were 615 ED visits (6.61 ED visits/SCH/yr). ED use by SCH ranged from 0.17-37.5 visits/10 beds/year. Only 10.8% of SCHs were high intensity users but accounted for 35.6% of all visits. By logistic regression, SCH size (# of beds; OR=0.970),

distance to ED (OR=0.960), and level of care (OR=2.165) were not statistically significant predictors of high-intensity users (ps > 0.193).

Discussion: SCHs utilize the ED in varying amounts, size of home, location, level of care or language did not predict which SCHs were high users. A better understanding of the clinical care environments in SCHs could help to better understand ED utilization patterns of SCH residents.

Exploring Integration in Primary Care: Impacts and Challenges of a Shared Care Model for Older Adults with Complex Needs

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Background/Purpose: Older adults with complex health needs often experience fragmented care and emergency department utilization. We describe the expansion of a primary-care based Integrated Care Team (ICT) in Kitchener, Ontario to non-team-based sites. The ICT provides geriatric care through a nurse practitioner-led interprofessional team including a pharmacist, family physician, geriatrician, and geriatric psychiatrist.

Method: We used mixed-methods to examine the impact of ICT expansion to four additional sites. We collected qualitative data through semi-structured interviews with physicians from participating clinics to explore facilitators, challenges, and perceived impacts. We collected quantitative data through patient and care-partner surveys administered during routine care between August-October 2024 (N= 92; 40 patients; 52 care partners), and provider surveys collected October 2024. Findings were synthesized through descriptive statistics and thematic analysis.

Results: Physicians reported that ICT expansion improved care integration and reduced clinic burden through greater access to coordinated interdisciplinary care expertise, reduced cognitive and administrative load, and fewer urgent calls and appointment requests. Administrative integration challenges centered on clarifying referral eligibility and discharge processes. Eighty-nine percent of providers agreed that ICT improved collaboration and patient access, and 67% reporting reduced acute care utilization. Patient and care partner surveys indicated high overall satisfaction (97%), increased confidence in self-management (91%), and timely access (93%).

Discussion: ICT expansion into non-team-based primary care settings demonstrates high satisfaction among patients, care partners, and providers, and potentially greater overall clinical efficiency. These findings support the role of integrated

interprofessional care models to strengthen primary care capacity for geriatric care.

Association of Comorbidity-Polypharmacy Score with In-Hospital Falls in Older Adults

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Background/Purpose: In-hospital falls with older patients are common, however identifying patients at risk of falling remains challenging. Therefore, the aim of this retrospective study is to see the association of Comorbidity-Polypharmacy Score (CPS) severity with in-hospital falls and outcomes with hospitalization including length of stay (LOS) and place of discharge.

Method: In this single-centre cohort study, subjects admitted to the University of Alberta Hospital In-patient Medicine and Geriatric Services during 2023–2024 were assessed. Medical records variables from electronic health records (Connect Care) include demographics, comorbidities, home medications, In-hospital falls, LOS and readmissions information within 30 days and mortality. CPS was calculated as the sum of comorbidities and home medications for a patient; it assigns one point for each comorbidity or drug the patient is taking. CPS was classified as mild (0-7), moderate (8-14), and severe (>14).

Results: The cohort size consists of 403 subjects, of which 42 subjects had in-hospital falls. Median age was 78 (IQR 71-84). In-hospital falls were more common among males than females (76.2% vs. 52.9; $p=0.004$). Those who experienced in-hospital falls had a significantly longer LOS (29 days [IQR: 12, 49] vs. 8 days [IQR: 4, 14]; $p<0.0001$). After adjustment for age and sex, CPS groups were not significantly associated with in-hospital falls.

Discussion: Our preliminary study results suggest that patients with higher CPS scores may experience falls earlier, however there is no positive association between CPS score and in-hospital falls.

Canadian Clinical Laboratory Experience with Plasma p-tau217 Testing for the Diagnosis of Alzheimer's Disease: A Report of More than 800 Tests

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Background/Purpose: Plasma p-tau217 is a robust biomarker for the diagnosis of Alzheimer's disease (AD), and we demonstrated its superior clinical performance in identifying AD in several studies. We present a series of plasma p-tau217 measurements used for the diagnosis of AD in a Canadian diagnostic laboratory.

Method: Between May 2024 and December 2025, at BC Neuroimmunology Lab, Vancouver, BC, plasma p-tau217 was measured in 812 samples using the ALZpath p-tau217 assay on the Quanterix HD-X Simoa platform. The demographic data were collected from requisition forms. The cohort was stratified by age into five groups. Data analysis was performed using SPSS 31.

Results: The mean age was 68 ± 13.3 years. 372 samples were positive, 122 were intermediate, and 318 were negative for plasma p-tau217. A statistically significant association between age and test results ($p < 0.001$), with a progressive age-related trend, was observed. In individuals younger than 50 years, test results were predominantly negative (93.1%). From the fifth decade onward, the proportion of negative results declined with aging, and intermediate (19.0%) and positive (41.3%) results became more frequent in the seventh decade. In individuals aged 70 years and older, positive results were most frequent, increasing to 70.7% in those aged 80 years and above. In addition, these age-dependent changes were significantly consistent across different sexes ($p < 0.001$).

Discussion: These findings support the clinical utility of plasma p-tau217 assays in AD diagnosis, and the increased intermediate plasma p-tau217 test results with age emphasize the importance of interpreting results within an age window.

Characterizing Medical Complexity and Transition Experiences in Long-Term Care Using the Geriatric 5Ms

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Background/Purpose: As Ontario's population ages, the demand for long-term care (LTC) is increasing. This study applied the Geriatric 5Ms (Mind, Mobility, Medications, Multi-Complexity, Matters Most) to characterize medical complexity and transition experiences of newly admitted LTC residents, supporting capacity building.

Method: This convergent mixed methods study analyzed Resident Assessment Instrument-Minimum Data Set (RAI-MDS) 2.0 admission assessments in Ontario between April 1, 2022, and March 31, 2024, to examine medical complexity. Semi-structured interviews with newly admitted residents and caregivers in Southwestern Ontario explored transition experiences. Quantitative and qualitative data were integrated using the 5Ms Framework.

Results: 53,940 admission assessments were analyzed. Mind: 64.7% of residents had a Cognitive Performance Scale score ≥ 3 , indicating moderate to severe cognitive impairment. Mobility: 84.2% had an ADL Hierarchy Scale score ≥ 3 , highlighting the need for extensive assistance, and 24.1% were classified as high fall risk. Medications: 65.5% experienced polypharmacy (≥ 9 medications). Multi-Complexity: 72.7% met Armstrong Frailty Index criteria for severe frailty. Matters Most: 39.8% of residents had an Index of Social Engagement score ≤ 2 , indicating low social involvement within the facility. Interviews (n=10) emphasized home-like environments and meaningful connections as key priorities. At the system level, many participants felt pressured into LTC due to short decision timelines, highlighting the need for navigational support and waitlist transparency.

Discussion: Older adults admitted to LTC demonstrate high complexity across all 5Ms domains. Addressing these needs requires interdisciplinary staffing and specialized clinical resources for cognition, mobility, medications, and frailty. Structured transition supports are needed to empower residents and caregivers, ensuring a person-centred admission.

Effects of Cardiovascular Risk Factors on the Diagnostic Performance of plasma p-tau217 for Amyloid and Tau PET Status

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Background/Purpose: To assess the impact of common cardiovascular risk factors – hypertension, hyperlipidemia, diabetes, and smoking status – on plasma p-tau217 levels and its diagnostic performance for amyloid- and tau-PET status.

Method: This cross-sectional study included 142 participants from the TRIAD cohort (mean age 68 years) with plasma p-tau217 measured using Lumipulse. Participants underwent amyloid-PET and tau-PET scans. Linear models evaluated the association between the presence of each cardiovascular risk factor and plasma p-tau217, adjusted for age, sex, education, APOEε4 carriership, and amyloid- or tau-PET status. ROC curves evaluated the performance of plasma p-tau217 in identifying amyloid- and tau-PET status, and the AUCs were compared using DeLong's test.

Results: Plasma p-tau217 levels were significantly higher in participants with positive amyloid-PET and tau-PET status. In contrast, plasma p-tau217 concentrations were not significantly associated with hypertension, hyperlipidemia, diabetes, or smoking status, in both univariate and multivariable analyses. The presence of at least one of the four cardiovascular risk factors did not affect the diagnostic performance of plasma p-tau217 for identifying either amyloid- or tau-PET status. White matter hyperintensities on brain MRI also did not significantly influence plasma p-tau217 levels.

Discussion: Hypertension, hyperlipidemia, diabetes, and smoking status showed negligible associations with plasma p-tau217 levels. The diagnostic performance of p-tau217 in identifying amyloid- and tau-PET status was comparable between individuals with and without these cardiovascular risk factors. Although replication in other populations is needed, our findings suggest that plasma p-tau217 accurately identifies biological AD, regardless of the presence of risk factors examined.

Decision-Making Capacity Assessment Education using Online Modules

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Background/Purpose: Specialized training is necessary for healthcare providers, such as physicians, nurses, and social workers, to be able to accurately perform decision-making capacity assessments (DMCAs). With an increasing demand for flexible, accessible education, there is growing interest in utilizing online training modules to keep healthcare providers up to date on current best practices in DMCAs. This study evaluates the effectiveness of online training modules in enhancing clinicians' self-reported knowledge, confidence, and comfort with the core concepts necessary to conduct DMCAs.

Method: This was a pretest-posttest study on an online DMCA training. Participants from a regional health authority (Alberta, Canada) took 13 online modules on 15 core DMCA concepts, between March to December

2021. A pretest and a posttest were completed before and after completion of the modules. Agreement to Likert-like items were collected and compared at a group level. Additionally, the ratings were compared with historical data from face-to-face DMCA workshops.

Results: 683 pretests and 241 posttests were completed. All 15 posttest ratings were higher ($p < 0.001$) than pretest ratings. Compared to the historical face-to-face workshops, the self-reported ratings in the online modules tended to be higher. However, the changes in self-reported ratings from pretest to posttest were similar between the online modules and the historical workshops.

Discussion: Online learning of DMCA concepts can lead to higher self-reported learning. Furthermore, the changes in self-reported ratings are similar to those observed in face-to-face workshops.

Utility of Primers in Completing Comprehensive Geriatric Assessments Amongst Junior Medical Learners: A Cross-Sectional Mixed-Methods Study

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Background/Purpose: Comprehensive Geriatric Assessment (CGA) is a multidimensional tool that evaluates the physical, psychological, functional, and social needs of older adults. While central to geriatric care, medical learners often find CGA complex and time-consuming. Accessible educational interventions may help bridge knowledge and skill gaps. This pilot study examined existing challenges associated with CGAs and whether providing structured handouts on common geriatric syndromes improves learners' comfort in performing CGAs.

Method: A mixed-methods study was conducted among medical trainees during their geriatric medicine rotation at St. Michael's Hospital, Toronto (July 2023-July 2025). Learners completed pre- and post-rotation surveys assessing their self-reported comfort with CGA (using an 8-point Likert scale) and perceived challenges. The intervention group received handouts on dementia, depression, falls, polypharmacy, and Parkinson's disease. Quantitative data were analyzed using descriptive statistics and t-tests, while qualitative responses underwent inductive thematic analysis.

Results: Twenty-four learners participated (12 pre-handout, 12 post-handout). Mean CGA comfort scores increased from 5.75 to 6.50 ($p=0.075$). Thematic analysis revealed four recurrent challenges: time constraints, knowledge and synthesis, collateral information, and communication barriers. Learners reported that handouts enhanced structure

and confidence but did not fully address interpersonal or system-related challenges.

Discussion: Structured handouts modestly improved learners' comfort with CGA performance and were perceived as helpful, accessible learning tools. However, persistent communication and collateral-gathering difficulties highlight the need for complementary educational strategies such as role modeling and communication training. Nonetheless, handouts represent a scalable and low-cost intervention to enhance learners' preparedness for caring for older adults.

Thematic Analysis, Emotional Valence and Technical Characteristics of Freely Written Sentences Done During Cognitive Testing

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Background/Purpose: Cognitive testing commonly includes a freely written sentence. Beyond a binary determination of sentence acceptability, characteristics and thematic content of sentences are not commonly considered. We studied sentence characteristics and themes in a sample of participants undergoing routine cognitive assessment.

Method: Participants had attempted the sentence writing item during memory clinic assessment. Sentences were analysed according to correctness, length and handwriting legibility. Analysis of themes and emotional valence (positive, neutral, negative) was undertaken by pairs of raters using a standardized code book. Participant characteristics (age, sex, and cognitive diagnosis) were examined in relation to themes using multivariate multinomial mixed modeling.

Results: Among 336 assessments, mean age was 75.5 ± 9.6 (Standard Deviation); 51% were female. The most commonly represented cognitive diagnostic categories were: Alzheimer's Disease ($n=116$) and vascular dementia ($n=70$). Sentence length (mean 5 ± 2 words) was shorter in participants with dementia compared to cognitively normal participants ($\beta: -0.96 \pm 0.48$; $p=0.048$). Legibility was not related to age, sex or cognitive diagnosis. Emotional valence was neutral in 49%, positive in 41% and negative in 10%, including expressing anxiety about the assessment and its outcome. The majority of sentences (80%) were present tense. The most commonly represented themes were family and personal interest (30%), orientation (28%), and references to the assessment (20%). Sentences about the clinic environment were over-represented in cognitively normal individuals (standardized residual[sr] = 2.08).

Discussion: Freely written sentences represent a uniquely individualized/personalized element of routine cognitive testing. Consideration of their thematic, emotional and complexity characteristics may have underutilized clinical utility.

Short-Term Unplanned Readmission, Clinical Frailty, and Living Arrangements Among Older Adults in Taiwan

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Background/Purpose: Short-term unplanned readmission among older adults represents a major challenge in geriatric transitional care, particularly in settings with rapid population ageing and limited long-term care resources. While readmission is often used as a quality indicator, patient-level vulnerability—especially frailty—and post-discharge living arrangements are critical factors influencing clinical outcomes but are less frequently addressed. This study aimed to characterize clinical frailty among older adults with short-term unplanned readmission and to examine its associations with demographic characteristics, living arrangements, and clinical parameters.

Method: This retrospective descriptive study was conducted at a medical center in Taiwan. Adults aged ≥ 65 years who experienced unplanned readmission within 14 days between 2020 and 2021 were included ($n=268$). Demographic data, living arrangements, and clinical variables were summarized using descriptive statistics. Given that the Clinical Frailty Scale (CFS) is an ordinal measure and selected variables were non-normally distributed, Spearman's rank correlation analysis was applied.

Results: Among the participants, 61.9% were aged ≥ 75 years and 55.6% were male. Most patients lived with family members (80.2%), while 6.3% lived alone and 10.4% resided in care institutions. Overall, 88.1% had CFS scores ≥ 4 , and 41.4% were classified as severely frail (CFS 7-9). Higher CFS scores were moderately correlated with older age ($\rho=0.405$, $p < 0.001$) and were positively associated with longer hospital stays ($\rho=0.211$, $p < 0.001$). Living arrangements were not significantly associated with frailty severity but demonstrated distinct clinical distributions across care settings.

Discussion: Older adults with short-term unplanned readmission were predominantly moderately to severely frail, underscoring the importance of frailty assessment in routine discharge planning. Integrating frailty-informed evaluation into transitional care may support risk stratification, individualized discharge decisions, and targeted post-discharge support across different living arrangements.

Further studies are needed to examine how care quality within each setting influences readmission and clinical outcomes.

Feedback Quality of Geriatric Medicine: Analyzing Entrustable Professional Activities in a Competency-Based Curriculum Using Mixed Methods

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Background/Purpose: Competency-Based Medical Education (CBME) relies on timely, task-oriented, and actionable feedback delivered through Entrustable Professional Activities (EPAs). Concerns remain regarding the quality and sustainability of narrative EPA feedback within CBME implementation. Purpose: To evaluate and monitor the quality of EPA narrative feedback in geriatric medicine and to explore faculty and resident perspectives on factors influencing feedback quality.

Method: A mixed-methods study was conducted within the University of Toronto Geriatric Medicine subspecialty program. A retrospective quantitative analysis examined narrative feedback from EPAs over a one-year period, assessing feedback quality across four domains: timeliness, task orientation, actionability, and polarity. Semi-structured interviews were conducted with faculty members and residents using a Theoretical Domains Framework-informed guide and analyzed using inductive thematic analysis.

Results: Quantitative analysis demonstrated that EPA feedback quality was high overall, consistent with analysis of prior cohorts. Feedback was largely task-oriented and corrective; however, timeliness and actionability were inconsistent. Qualitative analysis identified three overarching themes: (1) EPAs did not capture valued elements of high-quality feedback such as personalization and bidirectional exchange; (2) EPAs were frequently used as prompts to initiate more meaningful in-person feedback rather than serving as the primary feedback mechanism; and (3) there was a lack of comfort completing EPAs due to criteria complexity and limited faculty training.

Discussion: Conclusion: While EPAs remain the most numerous feedback points within CBME in geriatric medicine, structural and cultural barriers limit their ability to consistently support high-quality feedback. Targeted faculty development and system-level refinements may enhance the educational value of EPA-based assessment.

Changes in the Supply and Activity of Physicians Providing Specialized and Focused Clinical Services to Older Adults: A Population-based Descriptive Study in Ontario

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Background/Purpose: There are longstanding deficits in physician resources with specialized skills to care for the increasing number of older adults. We described geriatric-focused physicians' practice patterns and gaps in supply/demand.

Method: We trended the supply and clinical activity of geriatric-focused physicians from 2011-2023 and projected service use to 2048. We accessed population-based health administrative datasets and established two cohorts: Ontarians (65+) eligible for provincial health insurance and physicians (geriatricians, geriatric psychiatrists, and Care of the Elderly family physicians). We classified older adults into four health profile groups (HPGs) using a modified Canadian Institute for Health Information case-mix methodology. We examined patterns of health service use and clinical activities using remuneration codes. We projected physician service use by constructing period LIFE tables, estimating future population counts stratified by HPGs, and examining retirement/entry patterns.

Results: Geriatric-focused physicians increasingly cared for the oldest patients classified into more resource-intensive HPGs. Geriatricians and geriatric psychiatrists practiced in hospitals more frequently over time. While virtual visits peaked in 2021, this modality has resumed pre-pandemic trends. In all physician groups, mid-career physicians (aged 40-59) deliver the highest service volume, with visit counts among younger physicians declining. Forecasted gaps between physician supply and patient demand reveal widening gaps and significant shortages.

Discussion: While geriatric-focused physician supply has increased over time, it has not kept pace with population growth. Workforce projections signal worsening gaps between physician supply and patient demand, compounded by high retirement rates and limited recruitment. Expanded training pathways, incentivized practice with older adults, and integrated interdisciplinary care models are needed.

Strengths-Based Dyadic Coping Strategies that Support Resilience and Relationship Continuity Among Spousal Care Partners of Individuals with Parkinson's Disease

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Background/Purpose: Parkinson's disease (PD) is the fastest growing neurological disorder worldwide and is often accompanied by neuropsychiatric symptoms and executive dysfunction. These changes often increase the emotional and practical burden experienced by spousal care partners (SCPs) who must assume greater responsibility for decision-making, planning, and emotional regulation within the dyad. Nearly half of SCPs are at elevated risk for depression, anxiety, grief, and relational strain, yet evidence to guide effective adaptation and coping strategies remains limited. This study therefore examined strengths-based, dyadic coping strategies to inform optimal disease management approaches.

Method: Semi-structured interviews were conducted with 24 SCPs of individuals living with PD (6 men, 18 women; primarily aged ≥65 years). Participants were recruited through healthcare and community organizations. Interviews were transcribed verbatim, analyzed using reflexive thematic analysis, and supported by NVivo 15 to generate clinically relevant insights.

Results: SCPs described strengths-based coping processes that supported psychological resilience and relational functioning. Key themes included: (1) reframing caregiving as partnership rather than role loss; (2) engaging in open emotional communication to support affect regulation; (3) promoting dignity and autonomy to mitigate demoralization; (4) adapting shared routines to preserve meaning and continuity; and (5) maintaining individual identity to buffer depressive symptoms.

Discussion: Findings identify psychological and relational strategies SCPs use to cope. Given the central role SCPs play in supporting individuals with PD, integrating these strategies into clinical practice through assessment, intervention, and

interdisciplinary care planning may support care partner mental health and relational functioning, promote aging in place, and reduce downstream health system demands.

Reducing Inappropriate Antipsychotic Use in a Long-Term Care Facility in British Columbia

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Background/Purpose: The use of antipsychotic medications in long-term care (LTC) facilities has been a significant concern due to increased morbidity and mortality. In British Columbia, the rates of inappropriate antipsychotic use increased from 25% in 2019/2020 to 29.3% in 2023/2024. The new national target established by the Appropriate Use Coalition is 15%, or a 15% relative reduction as the annual improvement goal. Recently, the Canadian Society for Senior's Mental Health published clinical practice guidelines for managing BPSD in 2024. We conducted a quality improvement project at a LTC home in Vancouver, BC, to educate physicians and nurses about the new guidelines to see whether we could reduce inappropriate antipsychotic use.

Method: We aimed to reduce the rate of inappropriate antipsychotics in a LTC facility by 25% over 12 months by having a geriatrician provide targeted educational opportunities and workshops to physicians and nurses. The outcome measure was the percentage of antipsychotic use in residents without a specific medical indication. Balancing measures collected included number of falls, number of hospital/ED visits and benzodiazepine use.

Results: At 8 months into our study, we have reduced the average regular antipsychotic use by 28.4%, average PRN antipsychotic use by 35.2% and average total antipsychotic use by 29.9%

Discussion: Targeted interprofessional education led by a geriatrician was associated with a clinically meaningful reduction in inappropriate antipsychotic use in a LTC facility.

Understanding Provision of Continuing Care to Older Persons Living with HIV from Healthcare Providers Perspectives

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Background/Purpose: Healthcare providers (HCPs) aim to provide high-quality, patient-centred care for persons living with HIV (PLWH). Their perspectives help identify strengths and gaps in healthcare delivery and guide improvements to meet the diverse needs and priorities of PLWH seeking continuing care services.

Method: Using purposive sampling, we conducted semi-structured interviews with 14 healthcare providers who have current or former experiences in caring for older PLWH receiving care at Southern Alberta Clinic, Calgary, Canada. The 2024 Alberta Quality Matrix for Health (AQM) framework consisting of six dimensions (accessibility, acceptability, appropriateness, effectiveness, safety, and efficiency) was used to descriptively analyze healthcare values and perspectives.

Results: The most common health quality matrix dimensions were efficiency, safety, and effectiveness. These dimensions focus on utilizing resources to achieve desired outcomes, reducing the risks of unintended or harmful outcomes, and providing optimal results. Other dimensions were appropriateness and acceptability, which ensure that health services are relevant, evidence-based, and delivered respectfully. HCPs reported accessibility as a relatively uncommon dimension when caring for PLWH seeking continuing care services.

Discussion: HCP interviews suggest that dimensions related to quality of care, optimal use of resources, mitigating risks, and evidence-based approaches are desired. Accessibility was less common among HCPs, noting a potential gap between provider perceptions and patient values. There is a need for strategies that ensure equitable access for PLWH seeking continuing care services, while maintaining clinically effective and patient-centred care. Understanding HCP priorities when caring for PLWH seeking continuing care services offers insights into addressing gaps while supporting clinical operations.

Reducing Physical Restraint Use on Seniors Hospitalized in an Acute Medical Unit- Results of a Before-After Quality Improvement Initiative

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Background/Purpose: Physical restraints are frequently used in acute medical wards despite evidence of harm and lack of significant benefit. We conducted a quality improvement project to decrease the number of patient restraint days, in hospitalized seniors, on a medical clinical teaching unit.

Method: In this non-randomized study, change ideas to address root causes of restraint use in one of 6 general medical clinical

teaching units at the London Health Sciences Centre, serving older adults (≥ 65 years of age) were trialed. The number of patient days of restraint use was compared over a 6-month period prior to and after introducing the interventions.

Results: Barriers were encountered preventing the implementation of some change ideas including most educational interventions, modifications to the environment and increasing patient activity. Active identification of all restrained patients in daily rounds, case management using individualized approaches and discussion of the harms of restraint use with family involvement were implemented. A new restraint policy was also implemented. For a similar number of hospitalizations, there was a significant reduction in patient-days of restraints from 711 to 400, length of time spent in restraints (2.27 down to 1.48 days) and percentage of visits with restraints (from 45% to 37%) ($p < 0.0001$). There was no increase in the use of psychotropic drugs or falls.

Discussion: Physical restraint use can be decreased in older adults on acute medical services, without increasing falls, psychotropic drug use or staffing. This suggests that hospitals should implement quality improvement programs to decrease physical restraint use.

Exploring the Association Between Intraindividual Variability in Cognitive Performance, Cardiorespiratory Fitness, and Muscle Strength in Older Adults with Mild Cognitive Impairment

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Background/Purpose: Mild cognitive impairment (MCI) is a prodromal stage of dementia. Intraindividual variability (IIV) in cognitive performance refers to the within-person variation across multiple trials. Evidence suggests IIV is a sensitive measure of change in cognition and is associated with dementia risk. Cardiorespiratory fitness and muscle strength also serve as indicators of health outcomes (e.g., dementia risk) in MCI. Few studies with cognitively unimpaired adults have shown an association between higher cardiorespiratory fitness and lower IIV (i.e., better cognitive performance), whereas evidence for muscle strength is unknown.

Method: We conducted linear regression to examine the cross-sectional association between IIV, cardiorespiratory fitness, and muscle strength in older adults with MCI. IIV was measured using the Flanker congruent and incongruent and Dimensional Card Change Sort Test (DCCS).

Cardiorespiratory fitness was estimated using the 400m walk test and muscle strength and mass was assessed using hand grip strength and DXA scan, respectively.

Results: In 226 participants with a mean (SD) age of 74 (6) years, and 127 (56.1%) females, lower IIV on Flanker congruent ($b = -3.161$, $p = .002$), incongruent ($b = -4.440$, $p < .001$), and DCCS tasks ($b = -5.954$, $p < .001$) were associated with better cardiorespiratory fitness. Additionally, lower IIV on the DCCS was associated with greater grip strength ($b = -8.421$, $p = .005$) and higher muscle mass ($b = -8.047$, $p = .007$).

Discussion: The findings suggest that better cardiorespiratory function and muscle strength are associated with lower IIV during tasks of executive functions. Further research is required to evaluate whether IIV can, a) predict longitudinal changes in cognitive and physical function, and b) be improved via lifestyle interventions.

The Geriatric Telehealth Program at the Glenrose Rehabilitation Hospital

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Background/Purpose: The Glenrose Rehabilitation Hospital (GRH) has been providing geriatric telehealth consultations to patients in Fort McMurray for more than a decade. Dr. Jean Triscott provides the consultations and follow-ups in collaboration with a remote interdisciplinary team in Fort McMurray. We describe the GRH Geriatric Telehealth Program.

Method: This was a review of electronic medical records of patients seen in the telehealth program. We included older patients (≥ 65 years) seen from November 1, 2019 to June 30, 2024. Data extracted included demographics, diagnoses, and examinations. Descriptive statistics was used to summarize the data.

Results: The telehealth program saw 69 unique patients. The ages ranged from 65 to 92 years with a mean of 76.6 years. 58% were females. 85.5% (59/69) of patients were from Fort McMurray (about 430 Km from GRH); 4.3% (3/69) were from Fort Chipewyan (about 728 Km from GRH); six patients were from other rural areas (1/69 each area) 144 Km to 417 Km from GRH; one was from Edmonton. 89.9% (62/69) of records indicated reasons for referral; of these reasons, 90.3% related to cognitive impairment; only 4.8% of patients had mobility or movement indicated as a reason for referral. 97.1% (67/69) of patients had a post-consult diagnosis; of these diagnoses, 95.5% pertained to dementia or cognitive impairment; only 3.0% of patients had depression indicated. MMSE scores ranged from 5 to 30 with a median of 24.

Discussion: The GRH Geriatric Telehealth Program has provided remote consultations to geriatric patients in rural areas, with most patients having cognitive issues.

A Multi-state Transition Model Among Older Adults Receiving Home Care Services: A Population-Based Cohort Study in Quebec

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Background/Purpose: Older adults experiencing loss of autonomy often face multiple care transitions, some of which can be burdensome, such as hospitalizations. Despite the fundamental role of home care services (HCS) in promoting aging in place, evidence on the temporal patterns and dynamics of these transitions remains limited. We aimed to describe care transitions experienced by HCS recipients and identify factors associated with each transition.

Method: This retrospective cohort study focused on older adults receiving HCS between July 1, 2012, and December 31, 2015. Individuals were followed until death or December 31, 2016. Continuous-time multi-state Markov models estimated transition probabilities across five states: home, hospital, waiting at home for long-term care (LTC) placement, LTC, and death. Covariates included sex, age, residence type, and comorbidities.

Results: Our cohort included 3424 HCS recipients who experienced 14,792 transitions during follow-up, with 76% of these occurring from home to hospital and vice versa. Of the 1245 deaths recorded, half occurred in hospitals, nearly one quarter in LTC facilities, and fewer in the community. The probability of transitioning directly from home to hospital increased for people with chronic conditions but was reduced for those with dementia. These individuals had an increased risk of being placed on a waiting list for LTC or moving directly to LTC facilities. HCS were lower in intensity, with fewer services provided by healthcare professionals, for patients waiting at home for LTC placement.

Discussion: Multi-state modeling provides valuable insights into care transitions and can inform targeted improvements in service planning for older adults with complex needs.

Exploring Different Models of Geriatric Outreach Care Across Ontario

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Background/Purpose: The Canadian population is aging, with care needs becoming more complex. Specific healthcare services, such as specialized geriatric outreach services, are increasingly necessary to support older adults living with complex medical and psychosocial needs within the community. However, across Ontario, there is substantial variation in the operation of models and delivery of geriatric outreach care services to older adults.

Method: Utilizing the Consolidated Framework for Implementation Research (CFIR), this qualitative study examined the development and implementation of specialized geriatric outreach models of care. Eight different models of care were identified. In-depth interviews (n=17) were conducted with 25 program leaders and staff. Data were recorded, transcribed, and analyzed in NVivo 15 using appropriate theming techniques.

Results: Several themes emerged in alignment with CFIR domains. Interdisciplinary team-based structures were widely described as a model strength across multiple programs. Many participants reported a preference for case-management models over consultative models due to rising patient complexity; however, this was not always supported in practice. Additionally, many participants noted an increase in mental health care needs among patients. Participants described a growing tension for change, with increasing patient complexity and misalignment between policy and funding support. Although participants expressed confidence in the value of the programs, many reported ongoing challenges in demonstrating improved patient outcomes and service impact.

Discussion: This study highlights variation in geriatric outreach models across Ontario and identifies key implementation strengths and challenges influencing service delivery. Future work should explore, in more detail, program impacts related to patient and system outcomes.

What is Currently Being Taught About Restraint Use in Canadian Medical Undergraduate Education?

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Background/Purpose: The use of restraints remains a complex and ethically sensitive practice in healthcare. Although restraints are often employed to manage agitation, delirium, or behavioural disturbances, they are associated with significant physical and psychological harms. While nursing education has extensively examined restraint-related training, little is known about how physicians are prepared to navigate restraint use. Our study aims to determine how restraint is being taught in Canadian undergraduate medical education and to identify gaps for curriculum improvement.

Method: We conducted a two-phase study. Phase 1 involved a thematic analysis of publicly available undergraduate medical curriculum documents from all Canadian medical schools. Documents were screened using predefined keywords and coded using a structured framework, with Constructivist Learning Theory applied to interpret how curricula prepare learners to critically evaluate restraint use. Phase 2 consists of national bilingual surveys distributed to medical students and Undergraduate Vice Deans to capture perspectives on restraint teaching.

Results: Nine Canadian medical schools had available curriculum documents, of which six mentioned restraints in any form. The most frequently referenced topics were behavioural and crisis management, while consequences of restraint use and alternatives was less commonly addressed. Student survey results indicate inadequate preparedness, with most respondents reporting low confidence in navigating the ethical and practical aspects of restraint use. Vice-Dean responses suggest that restraint education is largely delivered through passive learning formats and is not consistently assessed.

Discussion: This study demonstrates that restraint education in undergraduate medical programs is primarily focused on crisis situations, with limited attention to prevention or ethical considerations.

Understanding and Addressing Wait Times in Specialized Geriatric Services: Findings from a Multi-Phase Engagement Process

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Background/Purpose: Specialized Geriatric Services (SGS) play a critical role in supporting older adults living with frailty, yet access is increasingly constrained by long and variable wait times. This study aimed to identify system-level strategies to improve the timeliness and coordination of care across SGS in Toronto.

Method: The Regional Geriatric Program of Toronto (RGPT) conducted a four-phase, multi-method engagement process: (1) targeted literature review; (2) 20 semi-structured interviews with SGS and primary care providers (PCP); (3) two surveys administered to SGS providers (n=91) and PCP (n=14); and (4) a full-day summit in April 2025 with over 50 stakeholders. Data were analyzed descriptively and thematically to identify shared common barriers and solutions.

Results: Across phases, recurring barriers identified included variable triage practices, limited communication

with PCP, inefficiencies in Comprehensive Geriatric Assessment (CGA) delivery, and prolonged follow-up appointment times, limiting access for new referrals. Survey participants strongly endorsed standardized triage tools, flexible or "right-sized" CGA models, and clearer protocols for discharge and follow-up. Summit discussions emphasized the importance of embedding SGS expertise into primary care (PC), strengthening interprofessional collaboration, and utilizing digital tools to support navigation and communication. Convergence across data sources demonstrated strong stakeholder readiness for collaborative, system-level change.

Discussion: This multi-phase engagement initiative identified practical, stakeholder-driven strategies to improve timely access to SGS, including standardized triage, flexible CGA models, and stronger integration with primary care. These findings show broad alignment on solutions and thus opportunity for coordinated action to implement them.

A Geriatric Care Pathway to Standardize Care for Older Adults Across the Continuum

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Background/Purpose: Older adults frequently have complex, multifactorial needs not defined by a single diagnosis. While diagnosis-specific care pathways exist (e.g. stroke), the absence of a comprehensive geriatric care pathway contributes to fragmented and inconsistent care for older adults presenting with geriatric syndromes. A literature review identified no existing, cross-continuum pathway for this population. Building on the Geriatric Standard of Care (GSOC) for Older Adults Living With/At Risk of Frailty and the Alternate Level of Care (ALC) Leading Practices (LPs), this work aimed to develop a system-level geriatric care pathway to support consistent, evidence-based care delivery across the continuum.

Method: Working in consultation with regional providers, we operationalized the processes, core elements and domains of care from the GSOC and the ALC LPs to create a cross continuum standardized care pathway. The pathway was validated with a subgroup of leadership representatives.

Results: The pathway is organized around five processes of care: early identification, assessment, care planning, intervention, and transitions. Core elements and domains of geriatric care are embedded throughout to promote consistency and equity in care delivery. The pathway clarifies expected care regardless of diagnosis and supports a standardized approach across community, emergency department, acute, and post-acute care settings.

Discussion: The geriatric care pathway provides an actionable, system-wide framework for sequencing care regardless

of diagnosis. By engaging clinicians and leaders across the continuum, it supports equitable, consistent, and integrated geriatric care and establishes a foundation for system-level implementation. Future work includes evaluating the pathway's capacity to drive quality improvement and support system transformation.

Diagnostic and Cutoff Values of Point-of-Care Ultrasound-Measured Quadriceps, Gastrocnemius, Biceps, and Triceps Muscle Thicknesses for Low Appendicular Muscle Mass in Older Adults

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Background/Purpose: Sarcopenia is a progressive, age-related skeletal muscle disorder characterized by reduced muscle mass, typically confirmed using dual-energy X-ray absorptiometry (DXA). In recent years, ultrasound has gained traction as a promising tool for assessing muscle quantity and quality.

Method: Appendicular skeletal muscle mass (ASM) was measured using the Norland XR-36 DXA scanner. Muscle thickness (MT) was assessed in B-mode using the GE Vscan dual-probe ultrasound at four sites: quadriceps, gastrocnemius, biceps, and triceps. Combined MT values were calculated by summing selected site measurements.

Results: A total of 121 older adults (80 females, 41 males; mean age=74 ± 6 years) participated. In females, biceps MT had the strongest correlation with ASM and skeletal muscle index (SMI) ($r=0.46$, $p<0.001$), whereas in males, triceps MT showed the highest correlation ($r=0.56$, $p<0.001$). The combination of quadriceps, biceps, and triceps yielded the highest correlation in both females ($r=0.57$, $p<0.001$) and males ($r=0.61$, $p<0.001$), and achieved the highest sensitivity (82.1% in females; 100% in males). However, as for a single muscle site, sensitivity analysis confirmed that quadriceps thickness was a consistent predictor of low muscle mass, comparable to the combinations, in both females and males, as defined by the ASM.

Discussion: Our findings demonstrate that ultrasound-measured muscle thickness-especially when combining specific sites-can effectively estimate appendicular muscle mass. This supports the expanding role of ultrasound as a practical, accessible tool for sarcopenia screening and diagnosis.

Analysis of Medications Contributing to Falls at a Community Hospital

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Background/Purpose: Falls are a leading cause of morbidity and mortality in older adults. The purpose of this study was to determine whether inpatient falls among older adults are preceded by administration of a fall-risk-increasing drug (FRID) and identify opportunities for safer prescribing.

Method: We conducted a retrospective chart review of all inpatient falls in 2024 of older adults admitted to a community hospital. Falls were identified using the Patient Safety & Learning System, a healthcare reporting tool in British Columbia. FRIDs administered in the 72 hours preceding a fall were identified using the STOPPFALL tool.

Results: There were 71 seniors who sustained 80 falls in 2024. Of these, 65/80 falls were preceded by a FRID in the prior 72 hours. 47/65 falls were preceded by administration of a FRID newly initiated during admission. The mean number of any FRIDs and new FRIDs (i.e. started during admission) in the 72 hours before a fall was 3.02 (range 1-8) and 1.94 (range 1-6) respectively. The most common FRID classes initiated during admission were opioids (23/47), antipsychotics (12/47), diuretics (8/47), benzodiazepines and vasodilators (7/47). The 1-year mortality rate following an inpatient fall was 42.3% (30/71).

Discussion: Among older adults at a community hospital who sustained a fall during their admission, there was a high rate of FRID use preceding the fall, including new FRIDs started during admission. The 1-year mortality rate of older adults who sustained an inpatient fall was high.

Effect of the Pandemic on the rate of Do-Not-Resuscitate Orders Among Ontario Long-Term Care Residents

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Background/Purpose: The pandemic disproportionately affected long-term care (LTC) residents. How these events affected advance care directive practices is unclear.

Method: This is a retrospective population study of Ontario LTC residents using data from the Continuing Care Reporting System based on the RAI-MDS 2.0. We used multivariate logistic regression to assess resident characteristics associated with Do-Not-Resuscitate (DNR) directives among those with moderate-to-high health instability (CHESS $\geq$ 3) pre-pandemic (2018-2019), during the pandemic (2020-2022), and post-pandemic (2023-2024).

Results: A total of 149,245 (pre-pandemic), 173,330 (pandemic), and 131,164 (post-pandemic) residents were included in the analysis. In the overall population from 2018 to 2024, the proportion of residents with advanced

functional impairment (27% to 34%), and end-stage disease (5% to 10%) increased. Over the same time frame, DNR directives increased minimally (75% to 77%). Diagnoses of heart failure (pre-pandemic adjusted OR 1.44 (95% CI 1.39-1.50); pandemic OR 1.41 (1.36-1.47); post-pandemic OR 1.44 (1.38-1.51)), Alzheimer's disease dementia (pre-pandemic OR 1.34 (1.29-1.40); pandemic OR 1.37 (1.31-1.42); post-pandemic OR 1.44 (1.38-1.51)) and other dementias (pre-pandemic OR 1.47 (1.43-1.51); pandemic OR 1.40 (1.36-1.43); post-pandemic OR 1.48 (1.44-1.52)) were associated with higher odds of having DNR directives. Residents who were their own personal care decision makers were less likely to have a DNR directive (pre-pandemic OR 0.64 (0.62-0.66); pandemic OR 0.67 (0.65-0.69); post-pandemic OR 0.63 (0.61-0.65)).

Discussion: Despite an increase in the complexity of LTC residents in the peri-pandemic period, there does not appear to have been a meaningful change in DNR designation.

VR&R: Preliminary Results on the Use of At-Home VR-Therapy for Caregiver Respite and Symptom Management in Dementia

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Background/Purpose: While caregivers of people living with dementia (PLwD) experience the highest levels of burden and distress, formal respite is costly or inaccessible. Therapeutic virtual reality (VR), can reduce behavioural and psychological symptoms of dementia (BPSD), improve quality of life (QoL), and foster social connection-while reducing caregiver burnout.

Method: "VR&R", is a 6-week open-label, pragmatic cross-over trial with a target sample of 50 caregiver-PLwD dyads, comparing Solo- versus Social-VR on (1) caregiver respite, resiliency, burden, and well-being, and (2) PLwD mood and BPSD, to improve at-home VR-based interventions. Mixed methods include standardized questionnaires, observations, semi-structured interviews, and in-app usage metrics. Dyads were randomized to complete two weeks in each condition (Solo-VR independently, Social-VR with a research assistant) then two weeks of no VR. "caregiver", a dementia-appropriate VR platform with 94 360°-videos, was used through a Meta headset and paired Samsung tablet.

Results: Interim analysis for 14 dyads (2 withdrawn) includes 12 caregivers (average age 58.08 years; 66.66% female) and 12 PLwD (MMSE range 2-26; average age 78.75 years; 58.33% female). VR-therapy sessions lasted approximately 30 minutes and the mean System Usability Scale score was 78.64 (67.5-92.5), a "Good" rating. Post-session satisfaction ratings averaged 4.45/5 stars in social and 4.15/5 stars in

solo sessions, with 92% of caregivers being very likely to recommend VR.

Discussion: Preliminary results suggest that both VR conditions are superior to having no VR access, with greater respite from Social-VR for uninterrupted time and greater interpersonal connection for Solo-VR.

"There is a Lot More Later Recognition Rather Than Early on": Physicians' Experiences Diagnosing Dementia in South Asian Communities in Canada

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Background/Purpose: Timely dementia diagnosis is critical for care planning and support; however, delays remain common among ethno-racial communities. Limited research has examined physicians' experiences diagnosing dementia in South Asian Canadians, particularly how cultural, linguistic, and systemic factors shape the diagnostic process.

Method: An interpretive phenomenological approach was used to understand physicians' experiences diagnosing dementia in South Asian Canadians. Semi-structured interviews were conducted with 13 physicians (10 geriatricians, 2 family physicians, 1 internal medicine specialist) practicing in Ontario, Alberta, and British Columbia. Interviews were conducted virtually, audio-recorded, transcribed, and analyzed using reflexive thematic analysis.

Results: Four interconnected themes were identified. Barriers and challenges in diagnosis and care highlighted delayed help-seeking due to symptom minimization and attribution of cognitive changes to normal aging, often resulting in later-stage diagnoses. Cultural and generational influences revealed how collective family decision-making, traditional gender roles, and generational differences shaped recognition of symptoms and caregiving dynamics. Communication and disclosure underscored tensions between physicians' ethical obligations and family preferences to shield individuals living with dementia from the diagnosis, compounded by language barriers and limited culturally appropriate assessment tools. Improving inclusivity and resources emphasized the importance of cultural humility, linguistic familiarity, continuous follow-up, and stronger connections to community-based supports.

Discussion: Physicians' experiences highlight both universal and culturally specific challenges in dementia diagnosis among South Asian Canadians. Findings underscore the need for culturally sensitive diagnostic practices, improved education for families, and expanded culturally adapted community resources to support timely diagnosis and equitable dementia care.

Implementation of Precision Medicine for Older Adults: Improving Accessibility of Therapeutic Drug Monitoring Testing in Ontario Through Interactive Mapping Software

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Background/Purpose: Therapeutic Drug Monitoring (TDM) is the measurement of medication concentrations in bodily fluids to guide pharmacotherapy. Although underutilized, TDM can benefit older adults facing age-related pharmacokinetic changes, multiple comorbidities, and polypharmacy. Some barriers to TDM include limited accessibility and slow turnaround times. A catalogue and interactive map of available TDM were developed in Ontario, to characterize the availability of tests by geography and demographics.

Method: A convenience sample of academic hospital labs across Ontario were invited via email to contribute their available TDM testing. For each test, we captured the name, testing method, turnaround time, frequency of analysis, and result-receiving method. We performed descriptive statistics and stratified by population, hospital size, and scope. We excluded for-profit testing sites.

Results: Data from 8 hospital-based labs in Ontario found 67 unique TDM tests. There was minimal redundancy between hospitals with only one (1.5%) test in Ontario (valproate) available at all 8 participating hospitals, and 40 (59.9%) tests available at solely one participating hospital. TDM test availability by local health integration network showed mild-moderately positive correlations with general (0.5755), pediatric (0.6035), and geriatric (0.5639) populations. Median test turnaround time was 168 hours.

Discussion: This is the first inventory of TDM testing availability in Ontario. Most TDM tests are dependent on one hospital lab, posing a risk if one hospital becomes unavailable. Limitations include small sample size and inclusion of only academic hospitals. Future work will focus on including more hospitals, pharmacogenetic testing, and clinical expertise in clinical pharmacology to support precision medicine for Ontario's older adults.

The Contributions of Third Sector Organisations in Studies Testing Interventions Targeting Social Frailty in Older Adults: A Scoping Review

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Background/Purpose: Frailty-whether physical, psychological, or social-is a significant health determinant for older adults. Social frailty is both the most prevalent form of frailty and a precursor to physical frailty. Our objective was to evaluate the current state of the scientific literature on the contribution of third sector organisations to interventions targeting social frailty in older individuals and on how their role is operationalized within effective interventions that help prevent the repercussions of social frailty.

Method: We conducted a scoping review using MedLine with Full Text (EBSCO), CINAHL Plus with Full Text (EBSCO), PubMed, AgeLine, and PsycINFO databases. Inclusion criteria were: 1) mention of a community organization; 2) primary focus on intervention effectiveness; 3) intervention targeting social frailty; 4) population of 60 years and over; and 5) English or French.

Results: Eighteen studies from 1982 to 2024 were included, of which four were from Canada. Interventions were classified into different programs: physical activity, group discussions, virtual/phone, multimodal, art/culture, and food delivery. Third sector organisations were involved in the development (n=4), implementation (n=10), or evaluation (n=3) of interventions, or directly contributed to the intervention (n=17).

Discussion: Few studies explicitly addressed our research question, and the role of third-sector organizations was often imprecise. Definitions of these organizations also lacked consistency. Third-sector organizations may help prevent social frailty in older individuals, yet knowledge remains sparse. Their involvement is crucial to reach socially vulnerable older adults and to ensure interventions are accessible and equitable.

Association Between Osteosarcopenia and Posturography and Gait Indicators in Adults Aged 50 Years or Older Residing in Mexico City: Results from the FraDySMex Cohort

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Background/Purpose: Gait and balance are vital for autonomy, but the specific roles of osteosarcopenia is not yet well understood. To analyze the association between musculoskeletal disorders and gait and balance in 50 years and older Mexican adults.

Method: Observational, cross-sectional study secondary analysis of the FraDySMex cohort. A total Measurements were obtained via Hologic-Discovery, GAITRite®, and Biodex-Balance-System™. Differences in gait and balance across musculoskeletal disorders were examined by

ANOVA, and their associations were evaluated with multi-variable lineal regression models adjusted for sex, age, body fat percentage (BF%), and comorbidity.

Results: 736 participants were included. 77.4% was female; mean age was 67.7 ± 0.34 years, Osteopenia/osteoporosis (42.5%) or without alterations (38.4%), sarcopenia (5.8%) and osteosarcopenia (13.2%). In the unadjusted analysis, gait speed ($p=0.001$), double support (DS-time) ($p=0.001$), step length (SL) ($p=0.001$), and Fall Risk Index (FRI) ($p=0.019$), were associated with at least one musculoskeletal disorder. After adjustment, sarcopenia and osteosarcopenia were associated with GS ($\beta=7.91$, $p=0.019$, $\beta=-6.18$, $p=0.018$, respectively), osteosarcopenia showed a significant interaction with BF% for DS-time ($\beta=-0.054$, $p=0.023$), and osteopenia/osteoporosis was associated with the FRI ($\beta=-0.26$, $p=0.015$).

Discussion: The association of sarcopenia and osteosarcopenia with poorer gait, likely due to neuromuscular impairment and age-related tendon changes. The association between DS-time and the osteosarcopenia-BF% interaction may relate to myosteatosis, increasing gait instability and prolonging DS-time. The association between FRI and osteopenia/osteoporosis may be related to mechanoreceptors and structural bone impairments that can lead to kyphosis and displacement of the core. Beyond GS clinical evaluation of osteosarcopenia and osteoporotic patients must incorporate SL, DS-time, and FRI assessments.

An Exploration of Patient Characteristics and Consequences from Receiving an “Alternate Level of Care” Status During Their Hospital Admission

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Background/Purpose: To complete a chart review of patients receiving alternate level of care (ALC) designation to identify characteristics, assess for complications and quantify overall burden.

Method: This study was a retrospective cohort study of patients admitted to acute medical wards in Edmonton, Alberta between January 1, 2022 – December 31, 2022. Data was obtained from chart review of electronic medical record with approval from research ethics boards.

Results: Over 1,100 patient charts were reviewed with 831 specific patient encounters logged for ALC designations. The average age of patients was 80.8 years old, with a difference in average age between patients awaiting placement and rehab (82.3 vs 80.9 years). Over 60% of hospital admission days were accounted for by patients awaiting placement, with longer average length of stay (LOS) compared to rehab groups (52.7 days vs 20.3 days). There were higher rates of overall complications within placement patients (160 vs 94) as well as more behavioural disturbances (34 vs 14 events). There

was also a significant difference in mortality rates post ALC designation between the two groups.

Discussion: We demonstrate that patients receiving an ALC designation have characteristics consistent with the geriatric population. There is significant burden from ALC-designation with higher rates of complication observed in patients awaiting placement. ALC designation is associated with increased mortality for both rehabilitation and placement patients. To the best of our knowledge, this is the first study to differentiate ALC-designations by type to assess patient characteristics, complication events and mortality rates.

Developing a Framework for Right-Sized Comprehensive Geriatric Assessment Through a Regional Quality Improvement Initiative

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Background/Purpose: Comprehensive Geriatric Assessment (CGA) is a foundation of specialized geriatric care and is associated with improved outcomes for older adults. However, rising demand, prolonged wait times, and limited geriatric specialist capacity challenge sustainability and equitable access. While CGA effectiveness is well established, there is little guidance on tailoring assessment scope, depth, and processes to patient needs, referral goals, and system constraints while maintaining quality. Thus, we aimed to develop a practical, consensus-informed framework describing the key features of a right-sized CGA and explore its early application through a regional quality improvement initiative.

Method: A regional CGA Working Group was convened within a wait times quality improvement initiative involving multiple specialized geriatric services. In parallel with site-level tests of change, an iterative process synthesized literature, clinical expertise, and early implementation experience to inform development of a conceptual framework and checklist. The framework was refined through inter-professional discussion and feedback.

Results: Four core domains emerged as defining features of a right-sized CGA: (1) referral clarity and goal alignment, (2) scope and depth appropriate to need, (3) team and process efficiency, and (4) utility of outcomes. These domains were reflected across early site-level tests of change within the Working Group, and provided a shared framework to organize and interpret diverse improvement efforts.

Discussion: A right-sized approach to CGA enables efficient, focused, patient-centred assessment while preserving the quality and value of comprehensive geriatric care. This framework offers a practical foundation to support quality improvement, inter-professional practice, and more equitable access to geriatric expertise in high-demand systems.

Exercise Intensity and Healthy Aging in Community-Dwelling Older Adults: A Prospective Cohort Study

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Background/Purpose: Exercise intensity is an important factor in functional aging, yet evidence differentiating the effects of low- versus higher-intensity activity in older adults remains limited. We examined both cross-sectional and longitudinal associations between usual exercise intensity, frailty, physical performance, and quality of life.

Method: In this prospective cohort study, 118 community-dwelling older adults were classified as non-exercisers, low-intensity exercisers, or high-intensity exercisers. Baseline assessments included body composition, biochemical markers, gait speed, mobility tests, handgrip strength, Short Physical Performance Battery (SPPB), Clinical Frailty Scale (CFS), and SF-36. Follow-up assessments were completed in 75 participants at one year, with a mean follow-up duration of 23.4 months.

Results: At baseline, high-intensity exercisers demonstrated superior physical performance, lower frailty severity, and higher SF-36 vitality scores compared with the other groups. Longitudinally, participants who increased their exercise intensity showed significant improvements in overall SF-36 scores and vitality. Those who consistently maintained high-intensity activity exhibited the most favorable trajectories in gait speed, mobility, SPPB, CFS, and multiple quality-of-life domains. Notably, among participants completing one-year follow-up, persistent high-intensity exercisers had higher hemoglobin levels at both baseline and follow-up, while individuals transitioning from lower to high-intensity exercise demonstrated a clear increase in hemoglobin over time, suggesting a potential physiological correlate of improved functional status.

Discussion: Higher exercise intensity was consistently associated with better physical function, lower frailty, improved vitality, and more favorable hemoglobin profiles over time. These findings suggest that exercise intensity, beyond participation alone, may represent an important component of healthy aging in community-dwelling older adults.

Cost-Utility of Non-pharmacologic Interventions Aimed at Improving Cognitive Outcomes After Traumatic Brain Injury in Older Adulthood from the Ontario Public Healthcare Payer Perspective

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Background/Purpose: Traumatic brain injury (TBI) can accelerate cognitive decline and increase dementia risk in older adults. Non-pharmacologic interventions such as physical rehabilitation and cognitive training may improve cognitive outcomes, but their cost-effectiveness remains uncertain.

Method: We conducted a cost-utility analysis using a discrete-time, individual-level Markov microsimulation model employing two-dimensional Monte Carlo simulation to compare 4 non-pharmacologic strategies for improving cognitive outcomes in adults aged ≥ 65 years following TBI: 1) usual care; 2) physical rehabilitation; 3) cognitive training; and 4) combination therapy (physical rehabilitation + cognitive training). We adopted a public healthcare payer perspective in Ontario, Canada, over a lifetime horizon. Primary model outputs included incremental cost-effectiveness ratios (ICERs), quality-adjusted life years (QALYs), and net monetary benefits (NMBs). Secondary outcomes included total life years, life expectancy, and incidence of mild cognitive impairment (MCI) and dementia. Costs were reported in 2024 Canadian dollars (C\$), with a cost-effectiveness threshold of C\$50,000 per QALY.

Results: Combination therapy yielded an ICER of C\$18,028 per QALY, the highest QALYs gained (3.04 QALYs) and NMB (C\$102,653), compared to usual care. All strategies were cost-effective, although cognitive training was dominated by physical rehabilitation. Combination therapy was the optimal intervention in 92% of probabilistic simulations and was associated with the highest life expectancy and the lowest incidence of MCI and dementia.

Discussion: Physical rehabilitation, cognitive training, and combination therapy were cost-effective compared to usual care at a threshold of C\$50,000 per QALY. Combination therapy was the most economically attractive strategy for improving cognitive outcomes after TBI in older adulthood.

Utilization of Emergency Departments: A Comparative Analysis Between Assisted Living and Nursing Home Residents

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Background/Purpose: In New Brunswick, many older adults (75+ years) live in Assisted Living Facilities (ALF) (11.6%) and Nursing Homes (NH) (7.5%). Literature suggests that residents of ALFs use the Emergency Department (ED) more frequently than NH residents. This study compared ED utilization by ALF and NH residents at Regional Hospitals (RH) in New Brunswick.

Method: ALF and NH residents aged 65+ who visited a RH ED from Jan 1-Dec 31, 2023 were included. Demographics and visit details were collected. Descriptive statistics comparing resident characteristics were completed using independent t-tests and chi-square tests. Visit rates were calculated using licensed bed counts for included facilities.

Results: Among 1870 ED visits, 58.0% were from ALFs (4481 beds) and 42.0% (4156 beds) from NHs. ED visit rates were significantly higher for ALFs (24 visits/100 beds/year, 95% CI: 23-26) compared to NHs (19 visits/100 beds/year, 95% CI: 18-20). Visits from ALFs involved older patients (82.6 vs 80.4 yrs, $p < 0.001$), more often female (66.4% vs 57.7%, $p = 0.002$) and occurred between 1600h and 0800h (66.9%, 95% CI: 64-70 vs. 55.0%, 95% CI: 51-59). Falls/Mobility issues were the most common chief complaint for both (ALFs [24.2%] and NHs [24.6%]). Admission rates were similar between ALFs (56.0%, 95% CI: 54-60) and NHs (51.6%, 95% CI: 48-55).

Discussion: ALF residents had higher ED utilization and more after-hours presentations than NH residents per 100 beds/year. Interventions targeting after-hours assessments and falls-related care in ALFs may reduce potentially avoidable ED visits, and future studies are needed to better characterize peak timing and visit drivers.

Improving Strength and Balance in Older Adults at Risk of Falls with the LudoFit Exercise Program

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Background/Purpose: Each year, a third of older adults, are anticipated to fall, potentially resulting in profound morbidity and mortality, as well as significant health care costs. This trajectory is only expected to increase with the aging demographic. Progressive balance training and functional exercises have been shown to be an effective intervention for fall prevention in older adults. Unfortunately, some studies showed adherence to exercise programs can be suboptimal, limiting their utility. We want to explore whether LudoFit, a game-based, technology-enabled home exercise software can be a feasible and acceptable alternative to conventional home exercise programs prescribed to patients seen in a specialized fall prevention clinic.

Method: We conducted a mixed methods cohort study based out of the Champlain Falls Assessment and Streamlined Treatment clinic at the Ottawa Hospital by partnering with Jitronix, a company that was founded to bring interactive technology to rehabilitation and senior care. Eligible patients were recruited, some given a conventional home exercise program and some given LudoFit, one of Jitronix's game-based exercise software, for 3 months. Data regarding exercise adherence, program acceptability, and physical function outcomes were collected and compared.

Results: There were no significant changes with regards to measured outcomes, including TUG, BERG balance scale, and 5-times sit-to-stand in both groups. Participants were more consistent with conventional home exercises. Those in the LudoFitFfit group did have an overall positive experience, and are likely to recommend this modality to family and friends.

Discussion: LudoFit is a potential alternative to conventional home-based exercises, however further research is warranted.

Does Spaceflight Accelerate Vascular Aging?

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Background/Purpose: Human spaceflight is a very sedentary lifestyle with astronauts engaging in <30min/day aerobic exercise and <1 hour of resistance exercise. Previously, we observed that 6-month spaceflight increased carotid artery stiffness. In this study, we measured arterial pulse wave properties with Mobil-O-Graph pulse wave analysis in 12 astronauts (3 women) on the International Space Station ~6 months compared to 63 men and women between the ages of 19 and 89 with data collected during supine rest.

Method: The Mobil-O-Graph was worn for 13 hours with one recording per hour under ambient conditions. The effect of spaceflight on arterial pulse wave was determined by comparing pre-flight baseline values with those obtained approximately 30 days prior to return to Earth.

Results: Spaceflight did not change resting heart rate or systolic pressure while arterial pulse pressure tended to increase. Arterial pulse wave was affected by spaceflight with a significant increase in forward and backward pulse wave ($p=0.005$). Augmentation index tended to significance ($p=0.07$). There was no change in pulse wave velocity during spaceflight ($p=0.67$). These data contrast with our reference population as pulse wave reflections and augmentation index were not affected by age. On the other hand, pulse wave velocity increased from 19 to 89 years.

Discussion: While we see changes in carotid artery distensibility and arterial pulse wave characteristics with relatively short durations living in space, the mechanisms of artery property changes are different between spaceflight and natural aging. Short-term effects on arterial properties with spaceflight return quickly on resuming normal activity patterns after spaceflight

Older Adults as Alternate Level of Care Patients in Hospital: Impact on Patients, Families and the Health Care System

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Background/Purpose: Older adults waiting in hospital for transition, known as Alternative Level of Care (ALC) patients, is not a new problem. Despite many strategies this problem persists and continues to grow. Understanding who these patients are, where they came from and what they need is required.

Method: All ALC patients (65+ years) in Horizon Health Network (HHN) hospitals from August 1, 2024 to Jan 31, 2025 were included. Demographics, living arrangements, reason for admission, length of stay, and discharge disposition were collected.

Results: Overall, 489 ALC patients, representing 28.0% of the 1783 hospital beds, were identified. Mean age was 81.2 years (SD=8.36), 50.3% male and 83.2% were admitted from home. Most were not receiving social care (69.0%) or home health care (72.3%). Dementia was the most common reason for their ALC stay (59.0%). At six months, 56.8% were discharged to the community (81.0% to nursing home), 21.3% remained in hospital, 15.6% had expired, and 6.8% were transferred to another hospital. ALC

patients accounted for 6.1% of all hospital discharges but accounted for 36.5% of bed days.

Discussion: Most ALC patients in HHN hospitals are 80+ yrs old, living with dementia in the community with no social and/or home health supports. ALC patients account for a small percentage of all hospital discharges, though the number of occupied beds days is substantial. The impact on patients, families and the broader health care system is significant, and potential strategies should target older adults in the community living with dementia.

Prioritization of Older Adults in Global Climate Change Adaptation Plans: A Policy Document Analysis of 205 Countries

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Background/Purpose: Climate change poses disproportionate health risks to older adults. Prior analyses described the inclusion of older adults in US and Canadian climate plans. Prioritizing older adults in climate plans is essential to ensuring their inclusion in future policy decisions.

Method: We identified climate plans for all 218 World Bank countries through governmental websites and international databases. 43 older adult-related keywords were searched within each plan and mentions were categorized into 16 adaptation themes, with inter-rater reliability assessed using Cohen's κ . Themes ranged from strengthening health systems (e.g. access to health care) to infrastructure improvements (e.g. transportation, age-friendly communication) to social supports (e.g. mental health programs). Mentions were further classified into general references to older adults or concrete legislative, programmatic, or funding actions.

Results: There were 205 countries (94%) with climate plans. 125 countries (61.0%) included 1-5 themes, 2 (1.0%) included 6-10 themes, 1 (0.5%) included 11 or more themes, and 77 (37.5%) included no themes. The most represented themes were responses to extreme temperatures, involving older

adults in decision-making, and disaster preparedness and response. Only 47 (22.9%) countries outlined legislative, programmatic, or funding actions aimed at supporting older adults.

Discussion: Older adults are underprioritized across global climate adaptation plans. Coordinated efforts to strengthen health systems and infrastructure are needed to protect older adults from climate-related risks. Comprehensive global frameworks will be essential to guide these efforts.

Barriers and Facilitators to Implementing a Geriatric Rapid Access Clinic Targeting the Emergency Department: A Qualitative Examination

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Background/Purpose: Emergency Departments (ED) are experiencing increased volumes of frail older adults with complex medical and social needs, contributing to prolonged ED stays and repeat presentations. Geriatric Rapid Access Clinics (Geri-RACs) have emerged as a strategy to support timely outpatient geriatric follow up; however, limited evidence exists on their implementation in academic acute care settings. A Geri-RAC was piloted at a large urban academic teaching hospital in Toronto. This study aims to evaluate its implementation by determining barriers and facilitators using the Consolidated Framework for Implementation Research (CFIR) framework.

Method: This qualitative study was conducted as part of a broader quality improvement initiative. Data were collected using a multi-source approach, including semi-structured interviews (5 interviews with 6 stakeholders), two focus groups, and ethnographic observation of clinical practice over 10 weeks. Interviews focused on experiences in planning, implementing, and utilizing the clinic. Participants included ED physicians, Geriatricians, nurses, allied health professionals, and administrators. Factors influencing implementation were mapped to relevant CFIR constructs.

Results: Key facilitators of implementation were (1) collaboration across disciplines and local community networks, (2) clinic champions who educated and sustained engagement with frontline staff, and (3) strong leadership support. Flexible referral pathways and alignment with existing clinical workflows further supported uptake. Barriers included (1) lack of clarity regarding referral criteria (2) concerns related to long-term funding and staffing, and (3) the implementation climate of the ED, particularly competing priorities and time pressures.

Discussion: Implementing a Geri-RAC requires leadership support, dedicated institutional resources, and clinic champions to sustainably engage ED frontline staff longitudinally.

Guidance Development for the Use of Blood Biomarkers in Precision Diagnosis of Alzheimer Disease in Primary Care-Based Memory Clinics

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Background/Purpose: Recent progress in blood biomarker testing for Alzheimer's disease (AD) could improve early diagnosis and help guide the use of amyloid-targeting therapies (ATTs). Recognizing the key role of Multispecialty Interprofessional Team (MINT) memory clinics in dementia care across Canada, this initiative aimed to establish guidance for incorporating AD blood biomarker use within these primary care settings.

Method: A panel of five experts in neurology and geriatric medicine developed guidance statements for blood biomarker use in MINT clinics, focusing on eligibility, appropriate tests, and interpretation. Following literature review and discussion, consensus was measured via online polling,

and defined as four of five experts agreeing/disagreeing with each statement.

Results: Among Core 1 AD blood biomarkers available, phosphorylated tau (p-tau) 217 had the strongest evidence for use in primary care (80% agreement), though its clinical utility remains uncertain as there is insufficient real-world data. Experts unanimously agreed (100%) that the role of Core 2 AD blood biomarkers has not yet been determined. Despite unanimous agreement that a two-cutoff approach improves p-tau217's accuracy compared to a binary model, consensus was not reached on how to implement it in its current form.

Discussion: While there was consensus that AD blood biomarkers will be important for precision diagnosis of AD, their current integration into MINT clinics remains unresolved. Given rapid advancements in the field, MINT clinics should proactively prepare for the integration of blood biomarkers, as emerging real-world data will soon inform their use in the accurate diagnosis of AD.

Integrating Bright Light Therapy into the Hospital Elder Life Program Strategies for Delirium Prevention in a Community Teaching Hospital

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Background/Purpose: The Hospital Elder Life Program (HELP) aims to prevent delirium in hospitalized individuals using structured interventions. Disruption of the sleep-wake cycle may contribute to delirium, especially in patients without access to light. This study examined if bright light therapy (BLT) could support sleep regulation and reduce delirium incidence in older patients when incorporated into HELP.

Method: Patients admitted to the Acute Care of the Elderly (ACE) service enrolled in HELP who were not delirious at baseline and had no window access were offered BLT. ACE patients on the intervention unit received BLT and HELP while those on the control unit received HELP only. Data collected included demographics, incident delirium, and use of insomnia treatments. Satisfactory surveys were completed by families and HELP volunteers when feasible.

Results: Between May 1st and Oct 31st, 2025, 25 patients with a mean age of 85.9 years met the inclusion criteria. Sixteen were assigned to BLT and 9 to the control group. Protocol deviations resulted in 12 patients receiving BLT, and 7 receiving HELP alone. Delirium developed in 25% BLT patients and 28.6% controls. Insomnia treatment initiation

or dose escalation occurred in 44.4% of BLT patients compared with 57.1% of controls. Over 65% of HELP volunteers observed improved mood, engagement and alertness among patients receiving BLT. Eighty percent of the family members expressed appreciation for a tool which provided simulated daylight exposure in hospital rooms.

Discussion: BLT is a feasible and well-received adjunct to HELP. Further study with a larger sample size is warranted.

How Useful is Narrative Feedback? An Evaluation of Feedback Quality in Entrustable Professional Activities in Geriatric Medicine

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Background/Purpose: Postgraduate training in Canada follows competency-based medical education (CBME) principles, with Entrustable professional activities (EPAs) serving to provide structured, observable, and measurable assessment points that help to evaluate a learner's progression towards competence in specific tasks. Narrative feedback is crucial in EPA observations, providing formative feedback on strengths and actionable suggestions. There is currently little evidence on the quality of narrative feedback provided in EPA observations in geriatric medicine residency programs. This study explores the quality of narrative feedback in EPA observations provided to geriatric medicine fellows using a published quality scoring tool.

Method: The quality of narrative feedback from anonymized EPA observations completed within the geriatric medicine residency program at a single Canadian institution was evaluated by three evaluators using the Quality of Assessment of Learning (QuAL) score. The QuAL score is scored out of five and evaluates three indicators of high-quality narrative feedback (evidence, suggestion, connection). Any differences in scores were resolved through consensus discussion.

Results: A total of 100 EPA observations from July 2023 to June 2025 were randomly selected for evaluation. The mean QuAL score was 3.49. Five of the EPA observations scored 1, 21 scored 2, 25 scored 3, 19 scored 4 and 31 scored 5.

Discussion: The majority of EPA observations provided moderate to high-quality narrative feedback but there was variability and many observations lacked key components of high-quality feedback. This inconsistency may negatively impact on learner reflection and development. Future research should focus on strategies to support faculty in providing high-quality narrative feedback.

The Acute Effects of Dance on Cognition and Mobility in Older Adults: A Pilot Study

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Background/Purpose: The objective of this study was to compare the immediate effects of dance to aerobic training and a passive control condition on cognition and mobility in older adults.

Method: Fifteen females (M=72.40; SD=5.00 years old) completed a within-subject cross-over design with 3 sessions scheduled 1 week apart. Participants were randomized into 1 sequence (Control-C, Aerobic-A, Dance-D: CAD, ADC, DCA). Testing was conducted pre and post each training session. Cognitive (Stroop and Random Number Generation-RNG) and mobility performances (balance and gait speed) were measured. Affect (Rejeski's scale) and workload (NASA-TLX) were also assessed. Two-way ANOVAs (time*session) were completed, and effect sizes (ES-Hedges'g) were calculated.

Results: Reaction times (Stroop) were significantly different across conditions (counting < inhibition < non switching < switching). A time effect and a time by session interaction were noted. Reaction times were faster after sessions with larger effect sizes after A and D (A: $-0.27 \leq g \leq -0.12$; D: $-0.27 \leq g \leq -0.25$) compared with C (C: $-0.15 \leq g \leq 0.09$). For RNG, a time effect was observed for Runs (inhibition). ES suggest these improvements were limited to experimental sessions (C: $g=0.13$; A: $g=-0.45$; D: $g=-0.23$). No effect was observed for mobility outcomes. Mental load was higher after D (D > A > C) while physical load was higher after A (A > D > C). Affect was higher after C (C > D > A).

Discussion: These preliminary results suggest that exercise can lead to acute cognitive benefits without compromising mobility.

Mapping the Aging Care 5Ms Competencies with Medical Council of Canada Learning Objectives: Implications for Geriatric Medical Education

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Background/Purpose: With the rapid growth of Canada's older adult population, physicians will increasingly be responsible for their care; yet education in older adult medicine remains limited. Between 2018 and 2022, a Canadian Geriatrics Society working group developed 33 Aging Care 5Ms Competencies across seven themes to support integration into Canadian medical school curricula. To assess alignment with national expectations, this study mapped the Aging Care 5Ms Competencies to Medical Council of Canada (MCC) learning objectives.

Method: The competencies and accompanying appendix (competencies mapped with 2021 MCC learning objectives) served as the primary references and the 2025 MCC learning objectives were used for comparison. Both authors independently conducted the mapping, with results subsequently compared to ensure consistency and accuracy. Each competency was categorized as having high, partial, minimal, or no coverage within MCC objectives. Additionally, the Committee on Accreditation of Medical Schools (CACMS) standards were reviewed to identify overarching requirements relevant to geriatric education.

Results: From 42 distinct components of the 33 competencies, 23 were highly covered by corresponding MCC objectives, 13 were partially covered, two were minimally covered, and four were not covered. Six themes demonstrated broad alignment with MCC objectives (75-100%), whereas the Aging theme had lower coverage (50%). One CACMS standard was found to mandate geriatrics-specific content.

Discussion: This study provides a framework for Canadian medical schools to meet MCC learning objectives while preparing graduates to address the complex healthcare needs of Canada's aging population and highlights opportunities for expansion within the MCC learning objectives to support comprehensive care for older adults.

Integrating Smart Home Technology with Social Services: How the Chinese Care-on-Call Service Empower its Older Adult Users

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Background/Purpose: Despite the broad deployment of smart home technology in China's eldercare sector, its effectiveness from the older adult user's perspective remains underexplored. This study is one of the early endeavors to investigate the perceptions and experiences of older adults adopting the Care-on-Call system, a prominent smart home eldercare service in China.

Method: We conducted individual and dyadic interviews with 28 older adult users from diverse physical, socioeconomic, and familial backgrounds. Data were analyzed using thematic analysis.

Results: Analysis identified two overarching themes. First, older adult users are confronted with multifaceted challenges to adoption, encompassing an incomplete cognition of Care-on-Call services, unfamiliarity with the system operation, a cultural norm of self-reliance (“do it yourself, don’t bother others”), economic concerns, and profound ethical worries regarding information security and privacy. Second, the pathway to bridging the technology divide was illustrated through user empowerment, increased services accessibility via an inclusive design, and the enhanced effectiveness of integrating smart home technology with human service provision to improve older adult users’ physical, social, and psychological wellbeing.

Discussion: The findings demonstrate that successful adoption of smart home technology is hindered not merely by digital literacy but by a complex interplay of cultural, economic, and trust-related barriers. For smart home technology to realize its potential in eldercare, deployment must be coupled with integrated support strategies. We recommended a hybrid model that synergizes technology with psychosocial support, organizational training programs, and culturally attuned service delivery to foster meaningful utilization among older adults in China and beyond.

Deprescribing Gabapentinoids: Characterising Adverse Drug Withdrawal Reactions

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Background/Purpose: The global rise in gabapentinoid use has heightened concerns over potentially inappropriate prescribing. Limited evidence on adverse drug withdrawal reactions (ADWRs) hinders effective deprescribing. We systematically reviewed the incidence, characteristics, severity, onset, and duration of ADWRs following gabapentinoid deprescribing.

Method: MEDLINE, Embase, PsycInfo, Cochrane Library, and Scopus were searched up to 24th February 2025 to identify original research on ADWRs following gabapentinoid deprescribing. Screening, data extraction, and quality assessment were independently conducted by two reviewers.

Results: Fifty-four of 5,358 articles retrieved were included: 9 randomised controlled trials (RCTs), 3 pre-post studies, 1 cross-sectional, 1 pharmacovigilance, and 40 case reports/series. The most frequently observed ADWRs were behavioural symptoms (e.g. agitation, insomnia, restlessness). Neuropsychiatric/cognitive, autonomic/physical,

neurological/sensory, and gastrointestinal symptoms were also commonly reported. Reported reactions were predominantly mild to moderate, with onset and duration varying widely from immediate occurrence to delayed onset (up to two months post-deprescribing) and from short to prolonged duration (over six months). Among the nine RCTs, ADWR incidence ranged from 0-47%. Deprescribing approaches varied with similar proportions of studies using abrupt discontinuation and gradual tapering.

Discussion: Marked variation in the presentation and incidence of gabapentinoid ADWRs across studies underscores the need to optimise strategies for ADWR prevention, early detection, and management. The evidence base is largely composed of case reports and series, limiting the clinical generalisability of the findings. There is a need for additional studies examining the effects of gabapentinoid type, dose, treatment duration, and deprescribing approaches to optimise tapering regimens and minimise withdrawal-related harms.

The Effects of Exercise on Intrinsic Capacity After Hip Fracture: A Systematic Review of the Cognitive Domain

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Background/Purpose: Cognitive impairment is common after hip fracture and is associated with delirium, poorer mobility recovery, loss of independence, and increased mortality. Cognitive status can affect engagement in rehabilitative exercise and discharge planning. Using the World Health Organization (WHO) Integrated Care for Older People (ICOPE) framework, this systematic review and meta-analysis aims to summarize the effect of exercise interventions in older adults following a hip fracture across the cognitive domain.

Method: We conducted a systematic search of EMBASE, MEDLINE, CINAHL, and CENTRAL. Eligible studies included: (i) randomized controlled trial design, (ii) older adults aged 60+ who experienced a hip fracture, (iii) an exercise intervention, and (iv) outcomes related to cognitive domain. Risk of bias was assessed using the Cochrane Risk of Bias 2 (RoB-2) tool, and the certainty of evidence was evaluated using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach.

Results: Of 5053 records screened, 4 randomized controlled trials (N= 534 participants) assessed the cognitive domain with

the Mini Mental State Examination (MMSE). However, only one study assessed pre-post change and reported no clinical or statistically significant differences. Exercise interventions after hip fracture varied in frequency (2-5 sessions/week), type (resistance, balance, endurance, multicomponent), and duration (3-24 weeks).

Discussion: Cognition is central to hip fracture recovery but is infrequently assessed in exercise trials, highlighting a gap between research outcomes and geriatric care priorities. Future trials should include cognition as a prespecified outcome with repeated measurements to clarify the role of exercise in preserving cognitive intrinsic capacity after hip fracture.

Effects of Group-Based and Individualized Exercise on Global Cognition and Executive Function in Older Adults: A Systematic Review

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Background/Purpose: Evidence suggests exercise is a promising strategy to promote cognitive health in aging. Trials in older adults show exercise to improve both cognitive and brain outcomes. Improvements in cognitive function observed following exercise interventions in older adults may reflect not only the effects of physical training, but also the social and interpersonal engagement that often accompanies structured, group based exercise. Clarifying the contribution of social interaction to cognitive benefits associated with exercise is important for informing decisions about intervention delivery and scalability.

Method: This systematic review evaluated randomized controlled trials comparing the effect of group-based and individually-delivered exercise programs in adults aged 55 years and older on cognitive outcomes. We included trials of exercise that reported at least one cognitive outcome assessing global cognition or executive function using validated neuropsychological tests.

Results: Searches of MEDLINE, EMBASE, PsycInfo, and CINAHL (from inception to 2025) identified 2,629 records. After removing duplicates, 49 full texts were reviewed and four articles met eligibility criteria for inclusion. After data were extracted, risk of bias was assessed via the Cochrane Risk-of-Bias tool. Three trials showed group-based exercise improved cognitive performance compared with individually-delivered exercise. The remaining one trial demonstrated preservation of cognitive status compared with a decline in

the control group (i.e., individually delivered exercise). All trials raised concerns for reporting bias.

Discussion: Group-based exercise may provide benefits for cognition compared with individually-delivered exercise. However, future randomized controlled trials designed to compare identical exercise interventions delivered in group versus individualized formats with cognitive outcomes as primary endpoints are needed.

Co-Designing an Augmented Reality System for Fall Prevention: Insights from Older Adults and Healthcare Professionals

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Background/Purpose: Falls affect 33% of older adults in Canada. Functional balance training can reduce fall risk. Augmented reality-based balance training interventions show potential as accessible home-based programs. This study explores how augmented reality (AR)-based balance training tools can be designed to meet the preferences and usability needs of healthcare professionals (HCPs) and older adults (OAs).

Method: A convergent mixed-methods study was conducted with community-dwelling OAs and HCPs from acute and community care recruited via purposeful snowball sampling. Six focus groups (3 OAs, 3 HCPs) were conducted using Design Thinking, and analyzed with directed thematic analysis. Participants completed the System Usability Scale (SUS), Technology Acceptance Model (TAM; 7-point scale), and Net Promoter Score (NPS; 10-point scale). Quantitative data was analyzed using descriptive statistics, linear regressions, and chi-squared tests.

Results: Participants included 18 OAs (mean=78±5.10), and 19 HCPs. Five themes emerged and guided refinement: (1) Make it easy: ease-of-use, safety, practicality; (2) Make it matter: clinical decision points, avatar personalization; (3) Make it personal: customizable goal-setting, feedback, language adaptations; (4) Make it social: gamification, social engagement; (5) Make it affordable: reduced costs, privacy transparency, rural applications. Quantitative analysis revealed no significant group differences. SUS scores (0-100) indicated moderate usability (HCP: (mean±SD) 57.1±10.8; OA: 59.0±14.5). TAM Perceived Usefulness scores were

modest (HCP: 3.58 ± 0.97 ; OA: 3.38 ± 1.40), and Perceived Ease-of-Use scores were low-modest (HCP: 2.62 ± 1.03 ; OA: 3.17 ± 1.45). NPS scores were moderate (HCP: 6.16 ± 1.46 ; OA: 4.94 ± 2.92).

Discussion: The AR system shows moderate acceptability and potential for adoption provided refinements address ease-of-use, customization, and accessibility. Findings will inform improvements to enhance adoption among OAs and HCPs.

Strong Bones, Strong Recovery: Enhancing Osteoporosis Management Post-Hip Fracture Surgery

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Background/Purpose: To improve osteoporosis management in elderly patients with hip fracture surgery through a structured, multidisciplinary approach. Timely identification and treatment of osteoporosis following a fragility fracture is essential to reduce the risk of recurrent fractures and improve patient outcomes. Despite available treatment options and evidence-based osteoporosis management guidelines, treatment rates remain suboptimal. A study 2021 study in Singapore showed concerning low rate of osteoporosis treatment initiation (22.4%), highlighting a significant gap in our current practice. Given the ageing population, high morbidity and mortality of fragility fractures our team aimed to improve osteoporosis management in this vulnerable group.

Method: A pre/post-implementation design was used for this quality improvement initiative. Root cause analysis identified 4 key gaps in care, including absence of structured workflows for osteoporosis treatment, dental clearance, and patient education. A multidisciplinary team developed and implemented a structured osteoporosis management workflow. The interventions included standardised assessments, optimization of calcium and vitamin D, initiation of appropriate osteoporosis treatment, timely dental referrals, scheduled follow ups and targeted patient education by trained nurses.

Results: There was a significant improvement in performing appropriate investigations (75.8% to 100%), calcium and vitamin D optimization (90.3% to 95.8%), dental referrals (53.2% to 95.8%), targeted patient education (89.6%) and scheduled follow up for osteoporosis management (40.3% to 87.5%). A median of 85% of patients received appropriate osteoporosis management.

Discussion: Implementing a standardized multidisciplinary workflow presents a promising approach to enhancing osteoporosis care following hip fracture surgery. Integration into coordinated clinical pathway, and regular staff orientation will support sustainability and continued improvement.

Mixed-Methods Evaluation of a Brief Cannabis e-Learning Lesson for Older Adults: User Experience and Perceived Impact

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Background/Purpose: Cannabis use among Canadian older adults is increasing, yet many report difficulty finding trustworthy, age-appropriate guidance, particularly regarding potency, adverse effects, and medication interactions. Bud Talks is a knowledge translation project that is designed to meet this need. Our team adapted Bud Talks: Cannabis and Older Adults for the McMaster Optimal Aging Portal and evaluated user experience and perceived impact of a 20-minute, publicly available “Cannabis & Older Adults” e-learning lesson.

Method: We conducted a single-group, post-lesson, convergent mixed-methods evaluation. After completing the lesson, users were invited to participate in an anonymous survey including items from the Information Assessment Method for all (IAM4all) and a Net Promoter Score (NPS) item. Quantitative data were summarized descriptively; open-text comments were analyzed thematically.

Results: From July 28-August 19, 2025, 592 users completed the survey. Respondents were primarily ≥ 65 years (84.9%) and female (78.7%); audiences included people using cannabis (20.9%), interested learners (44.4%), caregivers (8.5%), and healthcare professionals (8.3%). Perceived relevance was high (88.0% relevant/very relevant). Users reported the lesson taught them something new (76.0%) and/or validated prior knowledge (32.8%) (Multiple selections permitted). Most intended to use the information (95.8%). Expected benefits included preventing a problem (42.6%) and improving personal health or well-being (41.2%); NPS was 46. Qualitative feedback complemented survey findings, highlighting increased awareness of product potency, age-related effects, and potential drug interactions.

Discussion: Brief, public-facing digital education may support informed decision-making about cannabis among older adults and complement clinical counseling and harm-reduction initiatives.

Insomnia Treatment Preferences of Older Adults and People Living with Dementia: A Qualitative Study

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Background/Purpose: Insomnia is common in people living with dementia and older adults. Clinical practice guidelines

recommend non-drug treatment as first-line therapy. However, benzodiazepine receptor agonists (BZRAs) are commonly prescribed, introducing risk of medication-related harm. Understanding what influences decisions between insomnia treatments for people living with dementia, their carers and older adults may increase uptake of first-line therapy.

Method: Semi-structured interviews were conducted with older people living with dementia with experience of insomnia, their carers and older adults with insomnia. Interviews were conducted and transcribed in Zoom. Participants identified and prioritised factors that influence their preferences for insomnia treatments. Thematic analysis of transcripts was conducted in Nvivo to identify themes that described how participants' beliefs and experiences influenced their preferences.

Results: Nineteen interviews were conducted with 20 participants (Median reported age=65-74 years, 37% female), and 14 factors were identified. Risk of adverse events (n=10) and effectiveness (n=7) were most commonly prioritised and frequently reported (n=19 and n=18, respectively) across all participant groups. The adverse events of cognition and daytime sedation were frequent concerns of participants. Underpinning these factors were five main themes, with nine sub-themes identified, including external influences, barriers to treatment, treatment expectations, beliefs about sleep and insomnia, and treatment characteristics.

Discussion: Decisions about insomnia treatments are influenced not only by expected and/or experienced treatment effectiveness, but also by perceived risks and health beliefs. Integrating these perspectives into clinical care may encourage patients to choose safer insomnia treatments and reduce medication-related.

Geriatrician Human Resources and Adults 65+ in Canada: Changes, 2019–2025

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Background/Purpose: This study assessed the geriatrician human resource and population increases in Canada between 2019–2025 to see if the gap between the number of geriatricians needed and the supply gap, had decreased.

Method: The College of Physicians and Surgeons websites for all provinces were used to identify new geriatricians and those who had retired. Lead geriatricians and administrators in each province confirmed if any of the geriatricians were part-time equivalents (PTEs). As in 2019, the ratio of 1.25 geriatricians/10,000 adults 65+ was applied to determine the number needed.

Results: The number of geriatricians increased from 376 to 535 or 526.3 Full-time Equivalents (FTE). The population 65+ increased from 6.59 million (2019) to an estimated 8.08 million in 2025 for a number of geriatricians needed in Canada of 1007.8 resulting in a supply deficit of 486.5. In nine provinces the geriatrician number increased with the supply deficit decreasing in seven provinces and increasing in two provinces (NB, MB). In 1 (PEI) provinces the number of geriatricians remained unchanged, and the supply deficit increased. Retirements were 27 with 48* (9%) geriatricians continuing to work 40 years past their medical degree year (*missing data PQ and MB). There were 186 new geriatricians trained either in Canada or abroad.

Discussion: The number of geriatricians in Canada have increased and despite the population increase the need-supply gap overall has decreased. Provinces that have recruited new geriatricians or retained geriatricians past anticipated retirement have seen in the supply deficit decrease.

Implementation and Rapid Evaluation of Geriatric Emergency Management (GEM) Services in Small Hospitals in Northeastern Ontario

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Background/Purpose: Beginning in 2023, with support from the regional geriatric program of the North East (RGP-NE), new Geriatric Emergency Management (GEM) services were implemented at emergency departments (ED) in small northeastern Ontario communities with populations < 12000. Our objectives are to describe rapid evaluation outcomes and present across-organization implementation themes.

Method: Rapid evaluation methodology was used to combine internal and external findings and provide timely feedback to refine implementation strategies. With RGP-NE support, clinicians, patient/family representatives and leadership specified ideal state and service processes, developed workplans, and implemented GEM with concurrent internal data tracking. Following a concerted implementation period, anonymous surveys were deployed to gather external feedback and then findings were synthesized with internal data to assess progress, refine workplans and plan for ongoing implementation/ quality improvement. We pooled data across three sites for a mixed methods analysis using descriptive statistics and inductive content analysis.

Results: After an average of 11.5 months, 74% (20/27) ideal state outcomes were met or in progress. Survey responses suggested the opinion of ED staff/physicians and community

partners was GEM assesses eligible patients (79%; 19/24), identifies those at risk of functional decline (79%; 19/24), facilitates community linkages (79%; 19/24), and contributes to admission avoidance (65%; 15/23). Implementation themes were knowledgeable, experienced GEM nurses; active leadership engagement; knowledge and buy-in among external partners; creative site-specific service delivery to offset limited staffing.

Discussion: GEM services are an important addition to high quality care for older adults in small northern communities and their hospitals. Creative, flexible implementation is important to manage contextual challenges.

Opting Out: A Qualitative Inquiry About Hong Kong Older Adults' Perceptions Toward the Cross-Border Residential Care Services

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Background/Purpose: While the rapidly aging population is placing a growing strain on the healthcare infrastructure of Hong Kong, the government initiated the Guangdong Residential Care Services Scheme to subsidize eligible older adults relocating to residential care homes in mainland Greater Bay Area (GBA) cities. Yet, the reception of the scheme remains unclear, with little empirical evidence on operation from either the supply (care homes) or demand (older adults) side. This study aims to generate a comprehensive understanding of perceptions regarding policy among Hong Kong older adults.

Method: Guided by a narrative gerontology perspective, we conducted individual and dyadic interviews with 34 older adults from diverse physical, socioeconomic, and familial backgrounds. Data were analyzed using thematic analysis.

Results: Four overarching themes emerged. First, a negative perception of care homes prevailed among older adults, who expressed a lack of fundamental trust and deemed them a metaphor for life's destination. Second, participants identified multifaceted barriers to relocation, including loss of social connection and belonging, psychosocial adaptation, complex family decision-making dynamics, and uncertainty regarding GBA care home standards. Third, the policy was widely described as opaque, characterized by insufficient public knowledge and limited accessibility. Lastly, some participants embrace a hopeful vision for alternative care options in GBA.

Discussion: The findings suggest a pressing need to reshape older adults' understanding of care homes. Corresponding policies need to evolve to address their multifaceted biopsychosocial concerns and family dynamics. These understandings from service users' perspectives are essential for policymakers and service providers to develop effective strategies.

A QI Initiative to Compare Alignment of Geriatric Medicine Trauma Consult Service Recommendations with Quality Standards and Identify Areas for Improvement

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Background/Purpose: Since 2012, the Sunnybrook Geriatrics team has provided automatic consultations for trauma inpatients aged 70+. This project evaluated the alignment of Geriatric Trauma consult recommendations with the 2023 American College of Surgeons (ACS) Best Practice Guidelines and Sunnybrook Geriatrics group consensus for key assessment components.

Method: A retrospective chart review was conducted of 50 trauma inpatients seen in consultation by Geriatrics after a fall. Initial consultation and first progress note recommendations were evaluated for inclusion of key domains, including medication review, pain management, delirium identification/management, advance care planning, and care transitions.

Results: Patient mean age was 82.5 years, 54% were male, and mean Clinical Frailty Score was 3.6. 59% had an Injury Severity Score >15, indicating major trauma. Consults showed high adherence to standards: complete home medications were documented in 98% of cases, with recommendations made related to hospital medications in 44% of patients and home medications in 56% of patients. However, 32% of recommended home medication changes were not reflected at Most Responsible Physician (MRP) discharge. Pain management strategies were suggested in 56%. Delirium screening occurred in 100% of patients, with 30% identified as delirious; management emphasized mobilization, urinary retention, pain, and appropriate psychotropic use. Among non-delirious patients, 74% had prevention strategies documented. Falls histories were recorded in 98%, with individualized fall risk plans in 80%.

Discussion: Sunnybrook Geriatric Trauma consults demonstrated strong alignment with ACS and identified institutional standards. However, home medication changes recommended by Geriatrics were inconsistently communicated in MRP discharge documentation, indicating a key area for improving care transitions.

Exploring Users' Perceptions and Attitudes of the Driving and Dementia Roadmap

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Background/Purpose: People with dementia (PWD), family/friend carers (FCs), and healthcare providers (HCPs) feel ill-equipped to manage the driving cessation process in dementia. Our online platform, the Driving and Dementia Roadmap (DDR) (www.drivinganddementia.ca), provides support to manage this process. The present objective was to explore the impact of the DDR on perceptions and attitudes towards driving cessation and dementia and the likely impact on future decision-making.

Method: As users exit the DDR, they are invited to participate in an online survey about their experience. Survey questions assessed the degree of change the DDR had on perceptions and attitudes towards driving cessation, the likelihood of using the DDR to guide decision-making, and the likelihood of recommending the DDR to other PWD, FCs, or HCPs. Descriptive statistics were conducted via REDCap.

Results: A total of 119 DDR users completed the survey to date (20 PWD, 46 FCs and 53 HCPs). Participants reported a moderate impact of the DDR on perceptions and attitudes (PWD: 23.8%, FCs: 43.2%, HCPs: 54.2%). However, a moderate-high likelihood of using the DDR to guide decision-making (PWD: 57.2%, FCs: 77.3%, HCPs: 79.2%) and a high likelihood of recommending the DDR were reported (PWD: 66.7%, FCs: 90.9%, HCPs: 87.5%).

Discussion: These findings indicate the DDR is likely to impact future decision-making on driving cessation and dementia for PWD, FCs, and HCPs, with varying impacts on perceptions and attitudes. While the DDR is viewed as an effective decision-making tool, other aspects are still being explored, which will involve interviewing DDR users to further understand their experience.

You, Me, or Us? Development of a Novel Geriatric Medicine and Psychiatry Collaborative Triage Model in Southeast Ontario

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Background/Purpose: Older adults with complex medical and psychiatric comorbidities benefit most from integrated care. However, traditional Geriatric Medicine (GM) and Senior's Mental Health (SMH) pathways often function

in silos, requiring referring providers (RPs) to refer based on best understanding of local resources. This contributes to fragmented care, duplication, delayed triage, and high administrative burden. To reduce PCP workload, ensure timely and equitable access to our limited resources, and strengthen inter-specialty collaboration, we developed and piloted a Geriatric Medicine and Psychiatry (GMAP) collaborative triage process for older adults referred to GM and/or SMH in Southeast Ontario.

Method: A needs and gap analysis, involving Geriatricians, Geriatric Psychiatrists, GM and SMH leadership, and regional case managers/triage coordinators, identified current challenges and opportunities for improvement. Weekly virtual meetings reviewed referrals using defined GMAP criteria. Each referral was assigned one of four outcomes: no change, redirect, integrated care, or decline. For redirected cases, internal teams completed simplified paperwork and notified the RP.

Results: From January-August 2025, GMAP reviewed 121 referrals (74 GM, 47 SMH). Of these, 47% were redirected to SMH, 24% to GM, and the remainder were directed to our Integrated Geriatric Care clinic, declined, or redirected elsewhere. Duplicated referrals were eliminated. Participants reported improved inter-service communication, greater trust, reduced workload, and enhanced understanding of each service.

Discussion: GMAP improved triage efficiency, strengthened collaboration, reduced processing time, and minimized RP administrative burden. The model demonstrates feasibility, sustainability, and scalability within existing resources. Future work includes PCP feedback, assessing impact on wait times, and expansion to include Cognitive Neurology.

Sleep Quality and Frailty Among Community-Dwelling Older Adults: Findings from the PRO-EVA Study

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Background/Purpose: Frailty and sleep disturbances are highly prevalent in older adults and contribute to increased vulnerability to adverse health outcomes. Evidence suggests that poor sleep quality may be associated with frailty, but population-based data from primary care settings remain limited. This study examined the relationship between sleep quality and frailty among community-dwelling older adults.

Method: A cross-sectional study was conducted with 281 older adults recruited from primary health units in Parnamirim, Brazil. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI), and frailty was classified according to the Fried Phenotype. Statistical analyses

included chi-square tests, one-way ANOVA for PSQI components across frailty categories, and multinomial logistic regression adjusted for age and sex.

Results: Poor sleep quality was observed in 66.5% of participants and in 84.8% of frail individuals. In multivariate models, two PSQI components showed significant independent associations with frailty: use of sleep medication (OR=1.67; 95% CI: 1.12-2.49) and daytime dysfunction (OR=1.95; 95% CI: 1.08-3.51). Frail participants also demonstrated higher global PSQI scores compared with non-frail and pre-frail peers.

Discussion: Poor sleep quality-particularly characterized by medication use and daytime dysfunction-is independently associated with frailty in community-dwelling older adults. These findings highlight the importance of including routine sleep assessment in frailty screening within primary care to identify modifiable risk factors and guide targeted interventions aimed at promoting healthy aging. Longitudinal studies are needed to clarify causal pathways and evaluate the impact of sleep-focused interventions on frailty trajectories

Statistical Complexity Reveals Internal Learning Dynamics of Deep Neural Networks in Alzheimer's and MCI MRI Classification

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Background/Purpose: The diagnosis of Alzheimer's disease, mild cognitive impairment, and dementia presents a critical challenge, as these neurodegenerative conditions involve subtle brain changes that conventional imaging methods often fail to detect. Standard evaluation metrics used in artificial intelligence models measure prediction error but provide limited insight into how models internally organize and learn meaningful brain patterns, limiting early diagnosis and clinical reliability. This study introduces statistical complexity as an interpretable metric for characterizing internal learning dynamics in deep neural networks applied to brain MRI.

Method: Using DenseNet-121 and EfficientNet-B1 architectures, MRI datasets were partitioned into ten subsets ranging from 10% to 100% in 10% increments to examine how statistical complexity evolves with increasing data availability. Synaptic weights were extracted during training and transformed into probability distributions, from which entropy and disequilibrium were computed. Statistical complexity was defined as the product of entropy and disequilibrium, following the LMC formulation, enabling quantitative assessment of representational organization.

Results: Results demonstrate that statistical complexity increases consistently with dataset size. Models trained on limited data exhibited irregular learning trajectories indicative of overfitting, whereas larger datasets produced smoother, more stable learning behavior and coherent

hierarchical feature formation. DenseNet-121 showed greater robustness and structured complexity growth compared with EfficientNet-B1.

Discussion: These findings establish statistical complexity as a reliable and interpretable tool for evaluating deep learning models beyond accuracy alone. This framework is well suited to resource-limited settings, including many African health-care systems, where access to large datasets is constrained. By enhancing interpretability and robustness, this approach supports equitable neuroimaging-based decision support.

Language Preference and Antibiotic Use Among Hospitalized Older Adults with Dementia

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Background/Purpose: Language discordant care is known to contribute to potentially inappropriate interventions for patients with dementia but any impact on antibiotic prescribing is unknown. We examined whether language preference was associated with differences in antibiotic use among hospitalized older adults with dementia.

Method: We conducted a retrospective cohort study of medical inpatients aged 65+ with dementia admitted to a hospital network in Toronto, Canada between June 1, 2022 and July 1, 2023. We screened 1233 charts to identify individuals with dementia and abstracted charts for patient information. We used a negative binomial model to estimate relative risks for antibiotic duration in days adjusted for age, sex, and nursing home residence and performed a subgroup analysis for dementia severity (BPSD) and infection type.

Results: Our cohort included 595 patients with dementia who had a median age of 86 years [IQR 75-97] and 47.5% (n=283) who reported a non-English language preference. Over 60% (n=361) received antibiotics and the number of days on antibiotics was similar by language preference (3.6 days vs 3.8 days; incidence rate ratio [IRR] 1.03; 95% CI 0.88-1.21). In a subgroup analysis, patients with BPSD who spoke a non-English language had more days on antibiotics (4.2 days vs 3.3 days, IRR 1.58; 1.06 - 2.36) but this was not significant after adjustment (IRR 1.46; 0.99 - 2.36).

Discussion: Hospitalized patients with dementia who spoke languages other than English were not at greater risk of

receiving antibiotics. The general overuse of antibiotics in this population underscores the need for antimicrobial stewardship.

Evaluating a Public-Facing Polypharmacy e-Learning Lesson for Older Adults: Post-Lesson Survey Outcomes, Net Promoter Score, and Qualitative Feedback

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Background/Purpose: Polypharmacy is common in older Canadians and increases risk of adverse drug events and falls, hospitalization, and reduced quality of life. Patient-centred educational tools may improve medication literacy, yet few digital resources exist for older adults to support understanding of polypharmacy and medication safety discussions. We evaluated perceived relevance, understanding, intended use, and anticipated benefits of a public polypharmacy e-learning lesson, and users' likelihood of recommending it.

Method: A single-group, post-lesson mixed-methods evaluation of a publicly available polypharmacy e-learning module on the McMaster Optimal Aging Portal was conducted. Users completed an anonymous questionnaire including the IAM4all Short Form (IAM4all-SF; 5-point Likert) and Net Promoter Score (NPS; 0-10). Descriptive statistics summarized responses; free-text comments were analyzed thematically.

Results: From November 25-December 30, 2025, 424 users responded to the survey; 93.6% were ≥ 65 years and 70.8% female; 92.7% accessed the lesson via email invitation. The proportion somewhat/strongly agreeing was high for IAM4all-SF items: relevance 94.0%, understanding 95.5%, intended use 91.0%, anticipated benefit 89.1%. NPS was 64 ('excellent'). Qualitative themes reinforced survey findings, highlighting clarity and practical applicability, with intentions to request medication reviews, consider drug-supplement interactions, and engage more confidently in medication safety conversations.

Discussion: Older adult respondents reported high perceived value and intended use of a public polypharmacy e-learning lesson. Findings support feasibility of scalable, patient-facing education as a complement to deprescribing and geriatric medication management. Future work should assess dissemination via prescribers/organizations, sustained behaviour change and clinical outcomes.

Addressing Cognitive Decline in Aging Physicians: A Comparative Policy Analysis

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Background/Purpose: Cognitive decline presents unique challenges for physicians as they strive to maintain high standards of clinical judgement. Evidence-informed assessment strategies may be able to distinguish competent physicians from those with impaired performance. The objective of this study was to compare existing regulatory frameworks in Canada, the United States, and other Group of Seven (G7) countries addressing cognitive decline in aging physicians.

Method: This comparative policy analysis employed a qualitative case study methodology, involving a review of documents from peer-reviewed and grey literature. Frameworks, policies, or standards concerning cognitive decline in aging physicians were extracted from all 13 Canadian provinces and territories, all 50 states in the United States, and from the five other G7 countries (France, Germany, Italy, Japan, and the United Kingdom). These data were contrasted with how other safety-critical fields (judges, commercial pilots, and air traffic controllers) assess an aging workforce for competency.

Results: The structured search identified 258 documents related to ongoing physician cognition and competency. In Canada, the United States, and other G7 countries, few policies specifically addressed aging physicians. Most jurisdictions rely on voluntary approaches, including self-report and peer-report, to initiate a review of physician competency rather than proactive cognitive screening. In contrast, other safety-critical professions commonly employ mandatory retirement as a standardized safeguard.

Discussion: Targeted policies that address cognitive decline in aging physicians remain scarce, raising concerns about the consistency and quality of medical care delivery. Emerging models of age-based screening for physicians offer a promising approach, promoting both patient safety and workforce sustainability.

Quality of Continence Care from the Perspective of Female Long-Term Care Residents

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Background/Purpose: Incontinence is prevalent among older female residents of continuing care homes (CCH), is a risk factor for social isolation and physical deconditioning and associated with depression, falls, and impaired quality of life. The resident perspective is vital in defining quality of care, yet research exploring older persons' perspectives on quality

continence care remains limited. This study examined what constitutes quality in continence care from the perspective of older female CCH residents.

Method: Semi-structured qualitative interviews were conducted with older women (65+) with urinary and/or fecal incontinence (n=17) across two LTC facilities (one for-profit and one not-for-profit). Interviews were transcribed verbatim and analyzed using conventional content analysis.

Results: Data saturation occurred with 17 participants. Data analysis resulted in 87 codes, 15 categories, and 5 overarching themes: “systemic factors”; “resident autonomy”; “staff-resident interaction”; “comfort”; and resident-level factors, including their previous experiences and understanding of continence. Participants emphasized the importance of communication and shared decision-making, preservation of autonomy, dignity, privacy, comfort, and positive staff interactions as recurrent concepts throughout interviews.

Discussion: Quality continence care was characterized by clear communication and shared decision-making. Participants emphasized the importance of protecting dignity, autonomy, and privacy. Care quality was strongly influenced by staff attitudes, competence, and continuity, the availability of comfortable and reliable incontinence products and supportive physical environments. High quality care requires involving residents in care decisions, fostering respectful communication, ensuring privacy, providing adequately trained staff and appropriate resources to support resident comfort and promote independence.

Limits to Frailty in Community-Dwelling Elderly Men Without Dementia in the Manitoba Follow Up Study

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Background/Purpose: The Manitoba Follow-up Study is a prospective cohort study of male veterans. Frailty limit is a point of no return which beyond thriving in the community is unlikely. We sought to determine if there are limits to frailty in community-dwelling elderly men without dementia based on the frailty index (FI).

Method: The FI was created from self-reported questionnaires which were collected yearly from 1999 to 2023 by initially 1711 men. FI for persons with dementia or residing in long-term care (LTC) were not included. Three subscales of medical (29), functional (34) and psychosocial (20) items were constructed following prior guidelines. The FI was calculated by dividing the number of deficits by the number of possible deficits. Limits at 0.5, 0.55 and 0.6 were explored.

Results: The average age of the 1711 men in 1999 was 76.2. From them, 18,385 FI were calculated over 24 years. Only

the top 1% or 79 men (132 FI calculations), reached a limit >0.50, with 2 men (98 FI calculations) >0.60. The medical limit never exceeded 0.50. The functional and psychosocial limits exceeded 0.9. The maximum limit was 0.63.

Discussion: The limit rarely exceeds 0.50 (~1%) in community-dwelling older men without dementia. There is a limit >0.6 beyond which recovery is improbable. There is a more discernable limit of There is a more discernable limit of <0.50 for the medical subscale as opposed to the other subscales. Survival analyses were not assessed given the short timeframe from reaching limits to dementia, LTC or death. Future directions include assessing item prevalence and how item variations impact limits.

Association Between Modifiable Risk Factors and Cognitive Decline Among Participants with Polypharmacy in the Canadian Longitudinal Study on Aging

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Background/Purpose: Polypharmacy is prevalent among older adults and is associated with adverse drug events and cognitive decline (CD). Modifiable risk factors (MRF) may help prevent or slow CD. This study aims to identify the MRF associated with maintenance of cognitive function in this population.

Method: Data from Canadian Longitudinal Study on Aging participants aged 45-85 years with polypharmacy (≥5 medications), compared baseline and follow-up 1. MRF identified by the Lancet Commission included smoking, high alcohol consumption, social isolation, hearing loss, and vision loss. Cognitive changes were assessed using a standardized change score derived from six neurocognitive tests. The association between MRF and cognitive changes were assessed using multinomial logistic regression models adjusted for confounders (sex, age, comorbidities, place of residence and education).

Results: For the 3844 participants (mean age: 66.8; 50.9% female), the prevalence of smoking was (6.1%), high alcohol consumption (9.5%), vision loss (8.6%), hearing loss (26.5%), and social isolation (15.4%). In adjusted regression models, vision loss was the only MRF significantly associated with CD compared with cognitive stability (OR=1.49 IC 95%: [1.03-2.16] p=0.04). Hyperpolypharmacy was associated with higher likelihood of CD (OR=1.37 IC 95%: [1.01-1.87], p=0.044).

Discussion: The association between vision loss and CD supports that treating it is a way to prevent or slow CD, however this finding does not diminish the importance of the others MRF involved in cognitive prevention in general population. In the context of polypharmacy, a particular attention for the

compensation of vision loss could be particularly benefic to prevent CD.

Prioritization of Post-Operative Outcomes from the Perspective of Patients and Their Care Partners: A Cross-Sectional Survey

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Background/Purpose: Older adults are at high risk of surgical complications due to the high prevalence of geriatric syndromes such as frailty. As a result, older adults are faced with difficult decisions when weighing the risks and benefits of surgery. We must evaluate surgical outcomes that matter most to patients and their care-partners to inform future research and improve shared-decision making.

Method: We distributed an online and paper survey to older adults undergoing noncardiac surgery and their care partners who were assessed in surgical and preadmission clinics in Calgary, AB. Participants were asked to rank pre-determined postoperative outcomes from most to least important. There were 11 system-based outcomes and 13 patient-centred outcomes. Outcomes were obtained from the literature, expert opinion, and reviewed by patient family partners.

Results: Thirty-three participants responded to the survey, which included patients (n=29) and care partners (n=4). The top three ranked system-based outcomes were risk of death, risk of having a surgical complication, and chances of being discharged home. The top three ranked patient-centred outcomes were chances surgery will meet expectations, quality of life, and postoperative functional trajectories.

Discussion: Current perioperative care research is evaluating system-based outcomes that are important to patients; however, valued patient-centered outcomes of chances surgery will meet expectations, quality of life, and functional trajectories over time remain inadequately assessed. Future perioperative research needs to incorporate these top patient-centred outcomes to help improve surgical decision making of older adults undergoing surgery.

Embedding Dementia Expertise in Emergency Departments to Reduce Admissions and Support Caregivers

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Background/Purpose: In Canada, people living with dementia (PLWD) experience 2.5 hours longer emergency department (ED) stays, 65% higher hospitalization rates, and extended

lengths of stay compared to other older adults. Many ED visits stem from caregiver burnout rather than acute medical needs, highlighting the urgent need for integrated support that addresses the complexity of caring for older adults living with dementia and multiple comorbidities.

Method: The DREAM (Dementia Resource Education Advocacy Mentorship) program embeds Alzheimer Society Dementia Resource Consultants (DRCs) within hospital EDs. DRCs work within multidisciplinary teams including geriatric emergency medicine nurses, social workers, and home care coordinators. They conduct comprehensive interviews and assessments of PLWD and caregivers, develop shared care plans, model and teach risk mitigation strategies for managing responsive behaviours, deliver staff education, and facilitate seamless referrals to community resources. The dyadic approach addresses caregiver distress while optimizing older adults' capacity to remain in the community.

Results: From 2021-2025, DREAM scaled to 32 hospitals supported by 9 Alzheimer Societies. The program served over 7,600 PLWD and 8,000 caregivers, diverting over 2,900 admissions, avoiding hospital costs of at least \$48.2 million, and reducing ED return visits by building caregiver capacity and resilience.

Discussion: DREAM demonstrates that embedding dementia expertise within EDs, combined with person-centred assessment, coordinated community transitions, and robust caregiver support, can shift care from hospital to community settings for older adults living with dementia. This scalable approach preserves independence and quality of life while reducing system costs – demonstrating a sustainable path forward for health systems managing rising dementia prevalence.

Influenza Vaccination in Racialized and Ethnic Minority Older Adults: A Scoping Review

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Background/Purpose: Influenza poses significant health risks for older adults, with racialized and ethnic minority populations experiencing disproportionate burden. Despite this, there is limited awareness and knowledge synthesis available about disparities in influenza vaccination in these populations. Therefore, this scoping review maps the existing literature on influenza vaccination among racialized and ethnic minority older adults.

Method: We searched PubMed and Web of Science for studies examining influenza vaccination in older adults (≥60/65 years) from racialized and ethnic minority populations. Studies were included if they presented empirical data (qualitative or quantitative) examining race/ethnicity in relation to influenza vaccination. We conducted title/abstract and full-text screening, followed by extraction and thematic analysis.

Results: We included 28 studies published between 2004 and 2025. 25 studies were on patients in the United States, with 1 study each from Canada, Australia, and the United Kingdom. 23 studies evaluated vaccination rates/disparities, 11 evaluated barriers and facilitators, and 3 evaluated specific interventions in these populations. Racialized/ethnic minority older adults consistently demonstrated lower influenza vaccination rates. Black and Latinx older adults were the most studied groups, with language, socioeconomic status, and access to healthcare being common factors that further reduce vaccination in these groups. Common barriers included beliefs that vaccines cause illness and mistrust in the healthcare system. Limited data is available on culturally tailored interventions.

Discussion: There are large gaps in the literature on influenza vaccine uptake in racialized/ethnic minority older adults, including on populations outside of the Global North and on interventions to improve vaccination rates in these populations.

Psychological Impact of Caregiving When Navigating Language Barriers in Health Care: A Scoping Review

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Background/Purpose: Family caregivers provide essential support to older adults, yet those caring for individuals who face language barriers may experience added challenges. The aim of this study was the synthesize literature on the psychological impact of caregiving in contexts of language discordance with the health care system, focusing on stress, anxiety, depression, burnout, and coping strategies.

Method: A scoping review was conducted across six electronic databases from 2000 to 2025 to identify studies examining caregivers of culturally and linguistically diverse individuals in healthcare and community settings. Quantitative and qualitative study characteristics were summarized via frequencies, and qualitative studies were additionally analyzed using content analysis.

Results: A total of 7590 citations were retrieved, with 53 full text reviews. Ten studies were included, primarily composed of qualitative studies. Key themes include the emotional and cognitive burden of acting as interpreters, advocates, and system navigators; filial obligations, gendered expectations, and stigma on caregiving experiences; and the protective role of language-concordant or ethno-specific services. Language discordant caregiving was closely tied to cultural norms. Fragmented and unilingual healthcare systems, unmet service needs, and system-level barriers increased caregiver distress,

whereas culturally tailored supports and coping strategies provided mitigation.

Discussion: Caregivers supporting individuals who face language barriers experience significant psychological strain. Routine screening for caregiver burden, integration of professional interpreters, and expanded access to multilingual and culturally appropriate supports are recommended to improve caregiver well-being and promote equitable healthcare delivery.

Culturally Sensitive Volunteering and the Quality of Life Among South Asian Older Adults: A Systematic Review

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Background/Purpose: Loneliness and social isolation reduce quality of life (QoL) in older adults. Immigrant older adults face additional barriers (language, systemic racism) that may amplify these effects. Volunteering is a low-cost intervention to build social connection; culturally tailored volunteer programs may be particularly relevant to South Asian older adults but have not been systematically investigated. We aimed to determine the effect of culturally sensitive volunteering on the QoL of South Asian older adults (age ≥65 years).

Method: We systematically searched PubMed, MEDLINE, EMBASE, and Web of Science from inception to August 2025 for randomized and non-randomized studies. We also looked for grey literature on ClinicalTrials.gov. Two reviewers screened titles/abstracts and full texts in duplicate. Risk of bias (RoB 2, ROBINS-I) and GRADE assessment were planned; meta-analysis was pre-specified if data permitted.

Results: We retrieved 11,031 articles. There were 4,361 duplicates. After screening 6,670 unique articles, of which 90 underwent full-text review, none met our inclusion criteria. The most common reasons for exclusion were that interventions that did not explicitly target South Asian older adults or specify cultural adaptations, absence of QoL outcomes, or lack of ethnicity-stratified results. Planned syntheses could not be performed.

Discussion: The absence of eligible studies illustrates a critical research gap: culturally sensitive volunteering for South Asian older adults remains untested despite its theoretical promise for improving QoL and benefits in other domains of health outcomes. Future research should consider interdisciplinary collaboration with nonprofits and community partners to generate interventions tailored to the needs of cultural minorities within the healthcare system.

Design of a Direct Admission Pathway for LTC Residents Who Require Transfer to General Internal Medicine In Acute Care

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Background/Purpose: Long-Term Care (LTC) patients spend 10-26hrs waiting in the ED for a medical bed. After 12hr of exposure to a typical ED, 1 in 5 adults >65yo will become delirious which could prolong hospital stay significantly. We need to develop creative ways to deliver care for LTC residents. Our aim is to design a pathway for LTC residents to directly admit them to acute care bypassing the emergency department. The objective is to evaluate feasibility, process, safety and sustainability.

Method: Using QI methodology we undertook detailed partnership analysis to elucidate priorities of all partners. The direct transfer pathway starts by detecting a change in clinical status, the LTC and acute care physicians coordinate the availability of a bed. Patient is taken to triage in ED to repeat vital signs and to their pre-assigned bed. PDSA cycle analysis, chart reviews and team meetings occurred. Qualitative interviews are now being conducted for a qualitative evaluation of this process.

Results: The pilot phase of this project was completed with n=10, several PDSAs cycles were done to improve the process. Since then, the pathway is being used when needed, with ongoing improvement cycles. Strategies to optimize clinician handover, efficiency and clear documentation have been developed.

Discussion: We designed a feasible and sustainable process to admit LTC residents directly to GIM wards, bypassing ED. Ongoing qualitative interviews will help to understand the experience of all partners. This type of work allows us to reimagine how to care for our LTC residents across the health care spectrum.

Co-creation of an Educational Resource on Urinary Incontinence for Continuing Care Home Residents and Their Care Partners

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Background/Purpose: Urinary incontinence (UI) is a common condition that impairs quality of life. The prevalence of urinary incontinence increases with age and is highest in continuing care home (CCH) residents. As part of a study aiming to improve continence care in CCH, this study aimed to explore the education needs and perspectives of residents and their care partners on the content, format, and delivery of

an educational resource to address their questions, improve knowledge, and support better UI management outcomes.

Method: Semi-structured interviews were conducted between May and July 2025. Interviews explored participants' prior knowledge of UI, topics they wished to learn more about, and preferred formats and sources of information. Interviews were conducted either in person or via Zoom, digitally recorded, transcribed verbatim, de-identified and analysed via conventional content analysis.

Results: Fourteen residents and twelve care partners were interviewed. Interviews lasted between 45-60 minutes. Data saturation was reached for both groups. Most residents expressed a desire to learn more about UI and its management. Paper-based materials were the preferred format among residents. In contrast, most care partners reported limited interest in learning about UI, as continence care was largely managed by care home staff. However, a subset of care partners expressed interest in management-related information but preferred online resources.

Discussion: Urinary incontinence remains insufficiently understood by both residents and care partners in continuing care settings. Nonetheless, there is openness to learning, with paper and online formats identified as the most acceptable methods for delivering UI education depending upon the audience.

Prevalence of Restraint Use Among Older Adults with Agitation-Related EMS Encounters: A Population-Based Chart Review in Alberta, Canada

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Background/Purpose: Managing agitation in Emergency Medical Services (EMS) can be challenging, and the use of restraints may impact patient care and safety. We aim to describe the prevalence of restraint use and agitation among older adults presenting to EMS.

Method: A retrospective, cross-sectional study design using 2024 population level EMS administrative data was used to investigate the prevalence of restraint use in agitated older adults. Among ~145,000 EMS encounters involving older adults, a multistep agitation screening process identified a subset of 3,850 eligible patient encounters, which were manually reviewed to extract key variables.

Results: Most patients identified through agitation screening were described as calm (n=2,543, 66.1%). However, a third were described to be predominantly agitated (n=1,137, 29.5%) and anxious (n=163, 4.2%). For agitated/anxious older adults, chemical restraints were frequently administered (n=817, 62.8%), followed by physical restraints (n=180, 13.8%), and

non-restraint strategies (n=138, 10.5%). By far, agitation/aggression (n=609) were the most commonly cited reasons for restraint use, followed by anxiety (n=103), and uncooperativeness (n=61).

Discussion: Chemical restraint use was more frequent than physical restraints. Non-restraint strategies commonly included verbal de-escalation and re-direction. It's unclear whether the relatively high use of chemical restraints in EMS is due to prehospital circumstances, severity of presentation, lack of resources to utilize other strategies, or a lack of clear documentation regarding non-protocolized treatment administration, such as physical restraints and non-restraint strategies. Further research is needed to understand variation in chemical restraint use across prehospital environments and the factors underlying these decisions in the care of older adults.

Characteristics of Older Adults Receiving Primary Care Home Visits Before and After an Incentive Reform in Ontario

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Background/Purpose: In the early 2000s, Ontario introduced a billing premium (A900) for non-palliative home visits to homebound/frail patients, and a billing premium (A901) for non-palliative home visits to any patient. The A901 premium was removed in October 2019 due to concerns of overuse of home visits for ambulatory patients. We aimed to analyze the demographic and health status of patients receiving home visits before and after this incentive reform.

Method: This retrospective cohort study included all Ontario residents 65+ who received an A900 or A901 billing code between August 2018 and November 2019 using multiple population-based administrative databases.

Results: After A901 was removed in October 2019, the standardized rate of A900 per 10,000 increased from 19.2 (August) to 59.5 (October). The rate of A900 in October (59.5) was highly similar to the combined A900/A901 rate in August (56.8). Patient demographics between August vs. October showed similarities in individuals with dementia (31.3% vs. 31.5%), home care recipients (60.3% vs. 62.0%), and frailty (29.4% vs. 27.9%). All standardized mean differences were less than 0.1. There were slight differences between A900 vs. A901 recipients in August 2019, in terms of individuals with dementia (34.7% vs. 29.7%), home care recipients (64.6% vs. 58.4%), and frailty (30.9% vs. 28.8%).

Discussion: Overall, our findings suggest that patients who might have received an A901 visit in October likely received an A900 visit instead. The incentive reform did not have any meaningful immediate effect on the population of older adults receiving home visits in Ontario.

Domains of Inequality in Clinical Trial Enrollment for Individuals with Cognitive Impairment

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Background/Purpose: Participation in clinical trials are influenced by socioeconomic, and ethnocultural factors, including ethnicity, rurality, and education. These disparities may bias research findings and limit equitable development of dementia interventions. We examined whether diversity-related factors influence enrollment in an observational clinical trial among adults with cognitive impairment.

Method: We conducted a retrospective chart review comparing patients enrolled in an observational clinical trial (BioMIND; NCT06843109; n=87) with those who were screened but ineligible (n=50). Extracted variables included socioeconomic status (SES), education, nationality, rurality, language, and occupation. Group differences in Montreal Cognitive Assessment (MoCA) scores were analyzed using Welch's t-tests. Linear regression models assessed associations between SES and MoCA scores and examined enrollment group differences after adjusting for age and SES.

Results: MoCA scores were available for 134 patients. The mean MoCA score was 21.6. Enrolled participants demonstrated higher cognitive performance (22.5 vs. 20.1; mean difference ≈2.3 points; p=0.012). 21.8% of enrolled participants lived in rural locations compared with 16% of non-enrolled participants. Non-enrolled patients were more frequently born outside Canada (26% vs. 12.6%) and reported a non-English first language (12% vs. 5.7%). Education, occupational status, and composite SES were numerically higher among enrolled participants, but differences were not statistically significant (all p > 0.35).

Discussion: Participants who enrolled in an observational clinical trial had higher cognitive performance, trends toward higher SES and more likely to speak English. We have highlighted disparities which would require targeted recruitment strategies to improve inclusion of underrepresented populations in clinical trials.

Exploring the Experiences of Clinicians, Researchers, and Policy Makers Who Work with Racialized Older Adults: Results from the NUANCE Study

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Background/Purpose: Cancer diagnoses among racialized older adults (aged 60+) are rising in Canada, yet their access to cancer care and cancer clinical trials (CCTs) remains largely unknown. Our objective was to explore the perceptions of clinicians, researchers, and policy makers responsible for providing access to cancer care and CCTs to racialized older adults.

Method: We used a cross-sectional survey design to collect quantitative and qualitative data. Surveys were co-designed with relevant partners. Outcomes included demographics, perceptions of prejudice or discrimination; equity, diversity, and inclusion (EDI) in cancer care and CCTs; and barriers and next steps for improving cancer care and CCT access for racialized older adults. Descriptive statistics and an interpretive approach were used to summarize quantitative and qualitative data, respectively.

Results: 117 participants completed the survey: clinicians (n=73), researchers (n=6), primary care providers (PCP; n=21) and policy makers (n=17). Participants were most commonly 36-45 year old (n=36 [37%]) and female (n=79, [81%]). 58% (n=12) of PCPs, 48% (n=35) of clinicians, and 33% of researchers experienced prejudice or discrimination from patients or colleagues. Less than half (40%) of clinicians/researchers indicated EDI training was mandatory at their institution. Language barriers, difficulty understanding CCTs, and lack of trust in CCTs were identified as the top barriers preventing racialized older adults from participating in clinical cancer research.

Discussion: This study outlines perceptions of cancer care and CCTs for racialized older adults from the perspective of clinicians, researchers, and policy makers. Findings will be integrated with patient perspectives to inform potential solutions to reduce health disparities.

Exploring Pharmacologic and Nonpharmacologic Interventions for Delirium Recovery Post-Hospital Discharge: A Scoping Review

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Background/Purpose: Delirium affects up to 30% of hospitalized older adults and is linked to long-term cognitive decline, functional impairment, and increased mortality. Although symptoms often persist after discharge, most research focuses on acute inpatient management. As a result, evidence-based strategies to support post-discharge recovery remain limited. This scoping review aimed to identify and describe interventions supporting recovery from delirium after hospital discharge and to highlight gaps to inform future research.

Method: We conducted a comprehensive search of MEDLINE, Embase, the Cochrane Central Register of Controlled Trials, CINAHL, and grey literature from inception to May 21, 2025. Eligible studies included adults aged 50 years or older discharged with delirium who received any post-discharge intervention. Data were extracted in duplicate and synthesized narratively using qualitative content analysis.

Results: Of 10,795 citations screened, 135 full-text articles were reviewed and 13 studies met inclusion criteria. Interventions fell into two main categories: multidisciplinary transitional care models (k=9) and cognitive or physical rehabilitation programs (k=4). Outcomes were grouped into 10 broad domains. Some studies reported functional improvements and reduced healthcare utilization, however, none demonstrated benefits in delirium resolution or long-term cognitive recovery. Interventions were generally feasible and well tolerated.

Discussion: Post-discharge interventions for delirium recovery remain limited despite the substantial burden of persistent symptoms in older adults. The variability of reported outcomes and inconsistent measures of delirium resolution limit conclusions regarding effectiveness. The available evidence suggests that recovery from delirium is multifaceted and future research should focus on high quality studies using standardized outcomes to measure delirium recovery.

Developing Learning Objectives from the CGS Aging Care 5M Competencies for Medical Students in Canada

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Background/Purpose: In 2024, The Canadian Geriatrics Society (CGS) published the Aging Care 5Ms Competencies, aiming to improve undergraduate education in older adult medicine. Learning objectives (LOs) aligned with these competencies had not yet been developed for curricular implementation. Our objective was to develop a consensus-based list of LOs aligned with the CGS Aging Care 5Ms competencies.

Method: A modified Delphi methodology was used. Three rounds of online surveys were conducted between December 2023-November 2024. A national panel consisting of older adult medicine practitioners interested in education participated. Panelists rated their agreement with each proposed LO using a seven-point Likert scale and provided qualitative feedback. LOs with low agreement levels were revised and included on subsequent survey rounds for rating until a predefined consensus of $\geq 80\%$ was reached. The first round addressed the Aging and Caring for Older Adults competencies; the second focused on Mind, Mobility and Medications competencies with revisions; and the third addressed What Matters Most and Multi-complexity competencies with further revisions. After internal and external validation, LOs were finalized.

Results: A total of 75, 60 and 56 panelists participated in round 1, 2, and 3 respectively. The mean Likert scale for

the LOs was 6.3 (range 5.1-6.8) with mean 90% agreement (range 73-97%). Consensus was achieved on 136 learning objectives.

Discussion: This study provides a nationally informed, consensus-based set of geriatrics learning objectives. The action verbs of the objectives can be adapted for the local context and learning level to support curriculum development across Canadian medical schools.

Symbol Digit Modalities Test as a Predictor of Frailty and Mobility Impairment in Older Adults: Preliminary Results from the SAFE Cohort

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Background/Purpose: The Symbol Digit Modalities Test (SDMT) is a brief cognitive assessment of processing speed and may serve as a pragmatic screening tool for mobility impairment. However, its role in older populations remains unclear.

Method: We analyzed data from 76 older adults from the SAFE cohort. Outcomes included frailty status, Timed Up and Go (TUG), Short Physical Performance Battery (SPPB), and gait speed. SDMT performance was evaluated both continuously and dichotomously. Logistic regression models were adjusted for age, sex, and education.

Results: Participants were predominantly female (88.2%), with a mean age of 80.2 ± 6.7 years. According to Fried's criteria, 52.6% were pre-frail and 47.4% were frail, with no robust participants. Mean gait speed was 0.75 ± 0.22 m/s at normal pace and 1.02 ± 0.32 m/s at fast pace. Mean TUG was 16.0 ± 8.4 seconds, mean SPPB score was 7.0 ± 3.0 , and mean SDMT score was 23.9 ± 10.7 . In continuous analyses, higher SDMT scores were associated with lower odds of frailty (OR 0.94, 95% CI 0.89-0.99) and abnormal gait speed at normal pace (OR 0.94, 95% CI 0.89-0.99). Using the cut-point SDMT ≤ 35 (80% of participants), impaired performance was associated with higher odds of frailty (OR 6.47, 95% CI 1.30-32.2), abnormal TUG (OR 8.04, 95% CI 1.88-34.4), and abnormal gait speed at normal pace (OR 20.5, 95% CI 2.45-172.0).

Discussion: SDMT performance is closely linked with frailty and mobility impairment in older adults. SDMT may serve as a bedside screening tool to identify the risk of mobility decline and frailty.

Mortality in Rural and Urban Populations in Canada – The Canadian Longitudinal Study on Aging

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Background/Purpose: Up-to-date and local information on mortality differences between urban and rural dwellers is crucial for identifying potential health outcome disparities. We determined differences in mortality risk between rural, urban and peri-urban populations in Canada after accounting for potential confounding factors.

Method: We used data from the baseline Tracking Cohort of the Canadian Longitudinal Study on Aging (CLSA; N=21 241). Rurality was defined according to Statistics Canada classifications: Rural; urban core (urban); and peri-urban. We calculated weighted rural/urban/peri-urban differences in mortality risk, and constructed logistic regression models for mortality, both unadjusted as well as adjusted for socio-demographic factors, medical diagnoses, functional status and province of residence. Death was determined at the end of follow up 2.

Results: 8.3% of the rural group (N=4707) had died versus 8.8% of the peri-urban group (N=4762), and 9.0% of the urban sample (N=11 772). In logistic regression models adjusting for age, sex, education, individual income, chronic conditions, functional status, and province of residence, the Odds Ratio (OR) and 95% confidence interval for mortality was 1.02 (0.82, 1.25) for rural regions and 0.87 (0.71, 1.06) for peri-urban regions relative to urban regions. Older age, male sex, most chronic conditions, and functional impairment were all associated with increasing mortality. There was a very strong gradient in mortality across income groups in rural, urban and peri-urban areas.

Discussion: Although there were no rural – urban differences in mortality in Canada, further study is warranted into intra-rural differences. Addressing income inequality in both rural and urban populations remains important.

What Constitutes “Quality” in Continence Care? The Perspective of Older Women in Receipt of Home Care

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Background/Purpose: In Canada, incontinence affects 24% of adults, with numbers greatest in later life. Definitions of care quality are typically developed from the perspective of the care provider, with limited attention to how care recipients themselves conceptualize quality. As part of a study

investigating quality of care in later life, this study sought to examine how older women in receipt of home care services for personal care defined quality in continence care.

Method: Semi-structured interviews were conducted with women aged 65 and over (n=15) in receipt of home care. Open-ended questions were used to gain a deeper understanding of the experiences and views that shape quality of continence care. Interviews were de-identified, transcribed verbatim, and inductively coded to identify themes.

Results: Analysis generated 83 codes, collapsed into 20 categories, resulting in 5 overarching themes: (1) respect and autonomy; (2) emotional and physical comfort and safety; (3) caregiver competence and effectiveness of care; (4) caregiver qualities and attributes; and (5) dependability and accessibility of home care services. Many themes emerged from participant's impressions and experiences of poor quality care.

Discussion: Findings highlight that quality of continence care extends beyond completion of care tasks to encompass how care is delivered. Participants defined quality in caregiver-dependent terms, emphasizing interpersonal aspects of care. Many factors identified as defining quality were potentially modifiable. These findings will inform future work in creation of training programs and auditable quality indicators to monitor quality of care provision.

Survey of Patients and Caregivers' Satisfaction with the UniSUC External Catheter

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Background/Purpose: The UniSUC external catheter system is a non-invasive management system for urinary incontinence (UI) that utilizes a reusable frame with disposable moisture wicking liners and low-pressure suction to siphon urine from the patient. This patient and caregiver survey was conducted to evaluate patient and caregiver satisfaction with using UniSUC in comparison to other available external catheters and treatment modalities.

Method: An invitation for an online survey was emailed to patients and caregivers who utilized UniSUC. It was completed between December 2024 and October 2025. Questions included demographic and clinical characteristics. Satisfaction and other aspects were scored on a five-point Likert Scale. Five indicated greatest satisfaction and one indicated no satisfaction. Patient and caregiver responses for UniSUC and PureWick were compared using the Mann-Whitney U test.

Results: Of the 132 patients and caregivers completing the questionnaire, over 80% of UniSUC users were Very Satisfied (score of five) and Satisfied (score of four) for General Satisfaction, Comfort, Time Savings, Improved Sleep, Improved Dignity, Fewer nighttime trips, Ease of Set Up, Ease of Use, Improved Dignity, reduced nighttime frequency and UTI

reduction. The UniSUC system scored statistically higher (<0.05) in all categories compared to PureWick for urinary incontinence care.

Discussion: This study indicates that UniSUC has a higher patient and caregiver satisfaction for patients who suffer from urinary incontinence and utilize external catheter systems than currently commercially available systems. Further studies to validate these results are needed.

REACH LTC – REAssessing CHolinesterase Inhibitors and Memantine in Long-Term Care

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Background/Purpose: Choosing Wisely Canada (CWC) recommends regular reassessment of cholinesterase inhibitors (ChEIs) and memantine and a deprescribing trial if risks outweigh benefits. This is not routinely occurring in Ontario long-term care (LTC) homes. At Sunnybrook's LTC home, baseline ChEI/memantine use was 15%. Only 19% of prescriptions had ≥ 3 reassessments per patient-year and deprescription was trialed in only 36% of appropriate candidates. We aimed to increase both to 50%.

Method: We conducted chart reviews, direct observation of quarterly medication reviews, and physician surveys. Root cause analyses included Ishikawa and semi-structured interviews with leadership, physicians, nurses, pharmacists, and caregivers.

Results: We identified barriers including limited knowledge/training, fear of deprescribing consultant-initiated medications, and fear of negative effects, along with potential facilitators. These informed development of a deprescribing toolkit, decision support algorithm, electronic record tool, evidence summary, patient/family support package, and automated integration into medication reviews. Prescriptions with ≥ 3 reassessments per patient-year increased to 27% after our educational campaign and to 50% after toolkit implementation. Over the subsequent six months, improvements were sustained, peaking at 58%. Deprescribing trials rose to

83% post-education and to 91% after toolkit implementation. Subsequent variability likely reflects a smaller pool of candidates. Balancing measures confirmed deprescribing was safe and well-tolerated.

Discussion: Despite national guidelines and MOH mandates, ChEI/memantine reassessment and deprescription are not routine. Our study is the first to successfully implement these recommendations in LTC, where the harms of ChEIs/memantine are more likely to outweigh benefits than in community settings. We are now expanding to a second academic LTC home.

Primary Care Physicians' Knowledge and Comfort in Caring for Older Adults Living with HIV in Ontario: A Cross-Sectional Survey

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Background/Purpose: Advances in antiretroviral therapy have led to a growing population of older adults living with HIV, introducing complex clinical and psychosocial challenges. Primary care physicians (PCPs) increasingly serve as the primary providers for this population, highlighting the importance of PCP preparedness. This study aimed to assess PCP knowledge and comfort in caring for older adults living with HIV and to identify perceived gaps and opportunities for targeted interventions.

Method: A cross-sectional, web-based survey was conducted to assess PCPs' self-reported knowledge, comfort in providing care, perceived educational needs, and awareness of HIV-related comorbidities. Eligible participants were PCPs currently practicing in Ontario. Descriptive statistics were used to summarize responses.

Results: Ninety-four PCPs completed the survey. Overall, respondents reported low confidence across all domains, with weighted average (WA) likert scores below 2 on a 5-point scale. The lowest confidence was reported for staying up to date with advances in HIV research and management (WA = 1.39), followed by addressing social needs (WA = 1.50), managing the health needs of older adults living with HIV (WA = 1.66), and HIV diagnosis and management (WA = 1.90).

Discussion: Findings from this survey demonstrate substantial gaps in PCP preparedness to care for older adults living with HIV, likely reflecting both the complexity of aging with HIV and gaps in training. Targeted educational initiatives and interdisciplinary care models integrating primary care, geriatrics, and HIV specialty services may help address these gaps. Incorporating HIV-specific considerations into geriatric training and clinical guidelines may further enhance system-wide preparedness.

Clinical Frailty Scale Use in Taiwan: A Scoping Review and Potential Policy Translation Framework

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Background/Purpose: Frailty, a state of vulnerability to adverse health events, leads to increased risk of hospitalization, disability, and mortality. The Clinical Frailty Scale (CFS) is a clinical judgement tool for physicians' assessment of patient's mobility and health status to produce a score from 1 (very fit) to 9 (terminally ill). Countries like the United Kingdom have fully integrated the CFS into routine care whereas others that lack policy uptake and reimbursement practices, like Taiwan, see more sporadic use. We conducted a scoping review of CFS use in Taiwan and propose a policy translation framework.

Method: We searched three databases in Jan 2025 for original research articles that used the CFS in Taiwan. One reviewer completed screening on 63 articles. Study characteristics were then extracted including setting, population, CFS use, outcomes, key effect signals, and research group.

Results: A total of 39 original research articles were identified that utilized the CFS in Taiwan. Most studies were observational (92%) with an in-hospital population (59%). Mean sample size was 328±275(SD) comprised of 48±22% males. Most studies were interested in the CFS as an outcome (36%) to measure changes in frailty followed by risk predictor (28%) and only as a population descriptor (26%).

Discussion: The scoping review was completed in compliance with PRISMA guidelines. Evidence from Taiwan shows the CFS is a valuable predictor of health risk and sensitive measure of frailty change. Integration of the CFS into Taiwan's healthcare continuum could serve as a model for evidence-driven frailty policy in Asia.

National Trends in the Utilization of Commonly Dispensed Potentially Inappropriate Medications in Australia Between 2015 and 2025

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Background/Purpose: Potentially inappropriate medications (PIMs) are associated with increases in adverse outcomes, healthcare utilisation, and costs in older adults. This study

examined national trends in the utilization of commonly dispensed PIMs in Australia over the last decade.

Method: A retrospective analysis of Australia-wide medication dispensing in 2015 and 2025 using publicly available Pharmaceutical Benefits Scheme (PBS) data. Analyses included the top 50 PBS medications dispensed by volume for all ages, the top 10 for older adults (≥60 years), and the top 10 for residents of aged care facilities. PIMs were defined using the AGS Beers 2023 and STOPP criteria version 3.

Results: In 2025, older adults received 62.8% of dispensed prescriptions (females, 53%). Of the top 50 medications nationally, 14 were classified as PIMs in 2014, and 11 in 2025. Benzodiazepines, gabapentinoids, opioids, proton pump inhibitors, and tricyclic antidepressants reduced but remained consistently represented. Gabapentinoid use increased, NSAIDs and sulphonylureas fell from the top 50. Three of the top 10 medications dispensed for aged care facilities in 2025 were PIMs.

Discussion: Overall, PIMs use declined over time, which is consistent with Canadian trends. However, increasing use of gabapentinoids in both countries warrants attention. Strengths include national representation. Limitations included lack of clinical indication and duration data. PIMs lists are designed for older adults, however, the top 50 list reflects prescribing across all ages. Conclusion: Although PIM prevalence among commonly dispensed medications has decreased, ongoing exposure, particularly in aged care facilities, remains a key medication safety concern for older adults.

Descriptive Analysis of Older Inpatients' Characteristics on Units Without a Clinical Pharmacist in a Tertiary Care Hospital

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Background/Purpose: Polypharmacy and potentially inappropriate medication (PIM) use increase with age and are associated with adverse drug events and hospitalizations. Optimization of medication profiles by clinical pharmacists can reduce PIMs and potentially omitted medication (POM). This study aimed to describe an older inpatient population without on-ward clinical pharmacist coverage in a tertiary care hospital in Montreal, Canada.

Method: This retrospective study included adults aged 75 and older hospitalized between October 2023 and September 2024. Demographic and clinical data were collected from electronic medical records. Data on medications, including PIMs and POMs according to the Beers, STOPP/START, U.S.-FORTA and STOPPfall criteria, as well as anticholinergic load and prescribing cascades, were collected at admission and at

discharge. Regression models identified risk factors for PIM prescriptions.

Results: A total of 326 patients (mean age 82.1 (standard deviation 5.7)) were included. Across all PIMs criteria, 90.2% of patients had at least one PIM. According to U.S.-FORTA, the mean number of PIMs increased from admission to discharge (absolute difference 0.14, 95% confidence interval (CI): 0.03 - 0.25), while POMs decreased (absolute difference - 0.46, 95%CI: -0.65 - -20.27). Polypharmacy as defined as more than 10 medications (OR 5.03, 95%CI: 2.24 - 11.29) and comorbidities (OR STOPP criteria: 1.073, 95%CI: 1.022 - 1.127) were associated with the prescription of PIMs at admission.

Discussion: Various clinical criteria should be used to provide a comprehensive understanding of pharmacotherapy in older adults. Pharmacists should prioritize patients with a higher number of medications, comorbidities or criteria for polypharmacy.

Implementation of Interdisciplinary Case Rounding for Management of Behavioural and Psychiatric Symptoms of Dementia in Hospitalized Older Adults: A Quality Improvement Initiative

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Background/Purpose: Best practice guidelines strongly recommend interdisciplinary approaches to management of behavioural and psychiatric symptoms of dementia (BPSD). Using a quality improvement (QI) framework, this initiative aimed to improve communication and collaboration between Geriatric medicine and behavioural support Ontario (BSO) services, both frequently consulted for management of BPSD.

Method: This QI initiative took place in an urban academic inpatient hospital in Hamilton, Canada. Weekly joint case rounding was implemented for patients with BPSD for whom both the Geriatric Medicine and BSO services were consulted. The aim was for joint rounds to occur during 80% of eligible weeks, and for consensus of perceived improvement in communication among clinicians (geriatrician, case managers, and BSO lead). Educational impact, meeting duration and impact on other clinical responsibilities were used as balancing measures. Implementation metrics and feedback from learners and clinicians were collected through surveys and informal discussion.

Results: During the first Plan-Do-Study-Act (PDSA) cycle, time constraints were identified as a major barrier. This led to adaptations including round-table discussions with optional bedside visits and a standing meeting time. Joint rounds occurred on 85% of eligible weeks, achieving the implementation aim. Clinicians reported improved communication between services. All learners and clinicians perceived

value for patient care, and most perceived educational value. Efficiency and time constraints remain key challenges to sustainability.

Discussion: Multidisciplinary rounding for patients with BPSD was successfully implemented and perceived as valuable for patient care and education. Ongoing optimization of efficiency will be important to ensure long-term sustainability.

In What Activities Which Either Maintain or Promote Resident Quality of Life are Albertan Continuing Care Homes Engaged? A Sequential Quantitative-Qualitative Study

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Background/Purpose: Continuing care homes (CCHs) provide long-term residential care for older adults with substantial medical or social needs. Life in CCHs can entail losses in social ties, privacy, self-determination, and connectedness. Because quality of life (QoL) is central to effective care, we examined QoL-enhancing activities in Alberta CCHs to describe current practice and inform improvement.

Method: We used a sequential quantitative-qualitative design. A cross-sectional REDCap survey, aligned with the Alberta Health Services QoL framework, was emailed to CCH directors of care (or delegates). Respondents could opt into a semi-structured interview exploring risks, benefits, opportunities, and barriers to QoL activities. Interviews were recorded, transcribed verbatim, and analyzed using conventional content analysis.

Results: Surveys were completed by 135/186 CCHs (73%) across ownership models, sizes, and regions. Overall implementation was high, but lower rates were reported for: health-care interventions and complementary/alternative practices (70%; n=94), culturally diverse food (71%; n=96), resident influence over home décor (73%; n=98), transportation access (73%; n=99), and year-round safe, accessible, walkable outdoor spaces (74%; n=100). Qualitative saturation was reached after 13 interviews. Participants emphasized person-centred, holistic care; resident choice; social connection; and meaningful recreation as key supports for QoL. Barriers included staffing shortages, funding constraints, and residents' cognitive impairment.

Discussion: Alberta CCHs report broad adoption of QoL-enhancing practices with notable gaps in transportation and outdoor access, cultural culinary diversity, resident-directed environments, and integrative health options. Addressing workforce and funding challenges, and co-designing solutions with residents and families, represent actionable opportunities to improve QoL across continuing care settings.

A Self-Reported Clinical Frailty Scale is Correlated with the Frailty Index – The Manitoba Follow Up Study

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Background/Purpose: The Clinical Frailty Scale (CFS) is a summary measure of frailty intended to be completed after Geriatric Assessment. There are few studies on simply self-reporting the CFS (SR CFS). The purpose was to determine the association between the SR CFS and the Frailty Index (FI) and the subdomains of the FI.

Method: We analyzed data from The Manitoba Follow Up Study (MFUS), a prospective cohort study of men who qualified for air crew training during the Second World War. In 2015, we adapted the original 7 point CFS for self report (SR CFS) and included it in the annual questionnaire. There were 121 men who were still alive, living in the community, had not been diagnosed with dementia, and for whom we could calculate the FI and the CFS. We calculated a FI considering 89 items with 3 subdomains (medical, psychosocial and functional). We calculated the Spearman's correlation coefficient to measure the association between the SR CFS and the FI for each year after 2015.

Results: There was a modest correlation between the SR CFS and the FI in 2015 (0.60, $p < 0.0001$). The correlation was strongest for functional status, and weaker for medical FI. This correlation was similar in all years afterwards.

Discussion: There is a modest correlation between SR CFS and the FI; with a stronger correlation between the functional status domain and the SR CFS. Simply self-reporting frailty may be a useful complement to other measures.

How Frail are Older Adults Waiting in Hospital for Transitions in Care?

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Background/Purpose: Older adults waiting in hospital to transition to the community (known as Alternate Level of Care (ALC) patients) often come from home and have a diagnosis of dementia. The frailty levels of these adults and how it changes while in hospital is not known. The purpose of this study is to describe older adults who are ALC in hospital by frailty level prior to admission and during their hospital stay.

Method: All ALC patients 65+ yrs in one regional hospital had charts reviewed. Demographic data, clinical data, and frailty level using the Pictorial Fit Frail Scale (PFFS) prior to admission and while in hospital were collected retrospectively.

Results: There were 79 patients, mean age was 80.6 (SD 8.70) yrs, 43.0% female, 86.1% were living at home, (48.5% living alone) and 51.4% had dementia. The mean length of stay was 333.4 (SD 255.90) days. Prior to admission, the mean PFFS score was 12.6 (SD 6.14), consistent with severe frailty. In hospital, the mean PFFS was 18.4 (SD 5.73), a worsening of frailty by 5.8 points compared to admission.

Discussion: The majority of the ALC patients have a diagnosis of dementia and were living alone at home with severe frailty. Severe frailty indicates the need for assistance with daily living and often 24-hour supervision. Focusing on severely frail older adults living with dementia in the community may help identify those who are in need of more health and social care so that admission to hospital could be avoided.

Survey of Healthcare Workers about Bedpan Issues

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Background/Purpose: Professional caregivers use bedpans to assist millions of patients in acute care and long-term care settings daily worldwide. There are multiple concerns with using them: placement, spills, and patient/staff injuries, but limited research exists exploring these issues.

Method: To assess and quantify the current perception of bedpans among clinical staff, we conducted a survey in five US hospitals, three US nursing homes, one Canadian nursing home, and one Polish nursing home. A total of 201 healthcare workers shared their experiences with current models of bedpans.

Results: Respondents reported issues with placing bedpans (100%), spillage on the user (95%), spillage on the floor (98%), and biohazard exposure (81%). The average time reported to clean up spills is 11 minutes. Eighty percent of respondents reported workplace injuries, with 50% indicating that they need time off from work due to those injuries. Many (76%) reported that bedpans sometimes injure patients. There was no significant difference in responses by role, facility type, or location.

Discussion: Consistent responses across provider types, clinical settings, and countries indicate issues with placement, spillage and injuries are widespread. The scope of these issues highlights the potential for risk mitigation strategies and device improvement to improve safety and experience for caregivers and patients.