

2024 SOAR Project Submission – from Mount Sinai Hospital

Title: Geriatric Rapid Access Clinic QI Initiative

Supervisor: Dr. Lindy Romanovsky

Description of Project:

Mount Sinai Hospital (MSH) Emergency Department (ED) and Geriatrics partnered to offer a rapid access clinic (RAC) to frail older adults who presented to MSH ED to help avoid hospital admissions in 2023. The initial RAC was not successful as the targeted group of patients were unable to present to the clinic, leaving spots unfilled, high no show rate and more robust patients being referred.

In Jan 2024, RAC started a second PDSA cycle and partnered with Reconnect, a community organization, to offer rapid access case workers to assess these patients in their homes within 48-72 hours after a visit to MSH ED. They would then be assessed if they could present to RAC with the support of the case worker or required a home visit by a geriatrician through our independence at home program. The case worker would also help connect them to community resources they require to ensure they are able to live safely at home.

This model of care is a novel approach, with extremely limited data supporting it. Last summer we performed a literature review and found no studies outlining a clinic of this type. During our second PDSA cycle we will be collecting data on the demographics of patients we recruited, length of stay in our program, hospital admission/ED visits while in our program and number and types of community resources they are connected with.

Role of student:

Update the literature review

Help analyze the data

Help interview the stakeholders involved in RAC

Help start writing the manuscript

2024 SOAR Project Submission – from Baycrest Hospital

Title: Root cause analysis of stage 3, 4 and unstageable pressure injuries in a long-term care home: Phase 1 A retrospective chart review

Supervisor: Carol Ott and Evan Chong

Description of project:

Pressure injuries (PIs) are very common in inpatient settings. They are quality-of-care markers and in many cases considered preventable events. Canadian data shows that the resident assessment instrument-minimum data set (RAI MDS) and better information and care (HOBIC) data base from 2010-2013 that the overall prevalence of 13% across the inpatient system. An Ontario study showed that over 25% of pressure ulcers in long-term care developed one week after discharge from acute care hospitalisation.

At Baycrest Health Sciences, we have 472 long term home beds. We have patients that have PIs that have occurred within our home (internally acquired). Other patients have PIs that have occurred prior to admission to our facility or while at acute care hospitals (externally acquired). When prevalence and incidence studies have been done in the past, we have been pleased that our numbers were well below published data. We do not collect information on how the pressure injury occurs. This information is important to have as this may lead to further prevention. Our plan is to do a multi-phase quality improvement project.

Phase 1: Conduct a retrospective chart review/audit all patients in the long-term care home at Baycrest with stage 3, 4 and unstageable pressure injuries from March, April and May 2024. It is anticipated that approximately 30 patients would have such PIs.

Phase 2: Based on the information above, identify barriers and needs of the patients and staff.

Phase 3: Co-design and develop educational programs & process changes with pressure injury quality team and implementation.

Phase 4: Evaluate interventions.

Role of the student: As a student working on this project, you will be expected to get consent from the POA/patients and conduct the retrospective chart review of the patients with stage 3, 4 and unstageable PIs during the months of June and July 2024 (Phase 1). The list of patients will be pre-determined by the co-investigators. Phase 2 would be completed as well with assistance from the co-investigators. We would also work towards presentation at the Ontario Long-term care conference."

2024 SOAR Project Submission – from Women’s College Hospital

Brief description of women’s age lab: Women’s Age Lab is the first research centre focusing on the health and well-being of older women. The Women’s Age Lab aims to improve the lives of older women using science to transform care and practice, ultimately driving health system and social change.

Title of project: Gender and Potentially Inappropriate Medication Prescribing and Polypharmacy in Older Adults: A Scoping Review

Supervisor name: Dr. Paula Rochon, Founding Director of Women’s Age Lab at Women’s College Hospital
(Contact: joyce.li@wchospital.ca, Research Lead)

Brief description of project:

Among Canadians aged 65 years and older, 2 out of 3 people are on 5 or more prescription medications and 1 in 4 people take 10 or more prescription medications. In general, we know that chronic conditions increase with age, and therefore many aging people require multiple drug therapies. Potentially inappropriate medication (PIM) are drugs prescribed to older adults where the potential for risk outweighs the possible benefits and include potentially inappropriate polypharmacy and prescribing cascades. Its prevalence is highest among older women (85 years and older), who are more likely to experience chronic conditions that require multiple medications and be prescribed medications that are inappropriate. Despite women making up a large proportion of the older adult age group, little is known about how gender impacts PIMs in older adults.

The aim of this scoping review is to explore what is known about gender and gender-related variables as it relates to PIM prescribing in older adults and identify important gaps in knowledge that need to be filled to better tailor drug therapy to the specific needs of older adults, particularly older women.

Role of the student: The student will work with Women’s Age Lab to conduct a scoping review on gender and potentially inappropriate medication prescribing and polypharmacy in older adults. The student will be responsible for researching scoping review frameworks, working with a librarian to create a search strategy, developing the inclusion/exclusion criteria, executing the search strategy and article screening. They will also participate in data synthesis, manuscript drafting and preparation for publication. Additionally, they will have the opportunity to be integrated to enrichment opportunities within Women’s Age Lab at Women’s College Hospital including attending and having the opportunity to present at the Weekly Aging Team Meeting along with other related interdisciplinary team activities.

2024 SOAR Project Submission – from Mount Sinai Hospital

Title of project: Climate Change and its Impact on the Health and Well-Being Older Adults

Supervisor name: Dr. Nathan Stall, Geriatrician, Sinai Health System
(Contact: joyce.li@wchospital.ca, Research Lead)

Brief description of project: Climate change and the rapidly aging population are occurring simultaneously. Older adults, particularly women, are disproportionately affected by extreme weather events and food insecurity caused by climate change. Despite this, older adults are often missing from the climate change conversation and policy considerations. The UN Decade of Health Aging released a brief that addresses the issue of climate change, healthy aging, and older people. They state in particular that healthy aging and longevity are not possible without a healthy planet. Some climate change related threats include increased susceptibility to heat stress, lower heat tolerance due to medication, and more vulnerable to cold weather conditions especially for rural residents. The affordability of adequate heating and cooling systems along with the lack of air conditioning in long-term care homes also increases the risk of climate-related adverse events, along with the exacerbation of health conditions due to increased air pollution.

Currently, there is no strategy in place to support older adults in the event of extreme weather events that are becoming more frequent due to global warming. Older people who are already in poor health, with reduced mobility (impeding rapid evacuation), hearing or sight, and those living in nursing homes or care facilities, are more likely to suffer severe physical and mental health consequences. More research focusing on the impact of climate change on the health and well-being of older adults is crucial to protect this vulnerable population from increasing threats brought on by climate change.

Role of the student: The role of the student will be to support Dr. Stall in exploring and conducting research on topics related to climate change and its impact on the health and well-being of older adults. Responsibilities will include conducting literature searches and data synthesis. Additionally, they will have the opportunity to be integrated to enrichment opportunities within Sinai Health along with Women's Age Lab at Women's College Hospital including attending and having the opportunity to present at the Weekly Aging Team Meeting along with other related interdisciplinary team activities. The student may also participate in the preparation of an abstract/written analysis for publication.

2024 SOAR Project Submission – from Sunnybrook Health

Sciences Centre

Title: Medical Education/Quality Improvement

Supervisor: Dr. Dov Gandell

Description of Project:

The Royal College Geriatric Medicine Subspecialty training curriculum changed to Competence Based Medical Education in 2019. Since that time, the training program at the University of Toronto has trained 4 cohorts of residents. Over 1000 Entrustable Professional Activity assessments have been completed by faculty within the division since the curriculum has been implemented. Faculty have undergone professional development on delivering high quality feedback. The quality of the narrative EPA feedback provided to our learners has not been evaluated. The aim of this project is to review the quality of narrative feedback geriatric medicine learners receive from faculty on EPA assessments. Quality of the feedback will be measured by the polarity, actionability, and task orientation of the feedback.

Role of the student:

1. Review narrative EPA feedback and complete data abstraction forms
2. Prepare descriptive statistics
3. Present preliminary results, consider early manuscript preparation

**2024 SOAR Project Submission – from Sunnybrook Health
Sciences Centre**

Title: Improving equitable access to specialized geriatric services at Sunnybrook. Who are we missing and why?

Supervisors: Drs. Barbara Liu and Katrina Piggott

Description:

The Regional Geriatric Program of Toronto (RGP) and the Specialized Geriatric Services (SGS) want to improve the equity and inclusivity of care delivered at Sunnybrook Health Sciences Centre. This includes reducing wait times for services, improving the experience of care received by visible and invisible minorities, and increasing equitable access to our services. Health inequities may be the result of multiple social and environmental factors including age, income, social status, race, gender, education and literacy, sexual orientation, disability, and physical environment. In order to improve our services, we need to better understand the enablers and barriers to accessing outpatient specialized geriatric services at Sunnybrook. We routinely collect health equity demographic information based on the Ontario Health Toronto Region survey. We have summarized the distribution of our patient population by postal code and analyzed the distribution by neighborhood and the Ontario Marginalization Index. Goal: To develop a better understanding of the health services available and used by older adults in the neighborhoods underrepresented in our service provision, and identify opportunities for improvement.

Role of the student: Working with the supervising geriatricians and RGP team members, the student will

- Conduct an environmental scan of community-based services that serve seniors in the target neighborhoods.
- Conduct semi structured key informant interviews of representatives of selected community organizations to explore: a profile of the older adult client served, the types of services they provide in the community, their familiarity with and perceptions of SGS at SHSC, their perceived needs regarding specialized geriatric services.
- Draft recommendations for an improvement plan to increase equitable access to SGS

<https://www.rgptoronto.ca/>

<https://sunnybrook.ca/content/?page=dept-sgs>

2024 SOAR Project Submission – from St. Michael’s

Hospital

Title: Evaluating the Impact of a Collaborative Care Geriatrics and Movement Disorder Clinic

Supervisor: Dr. Karen D’Silva

Description of the project:

Background: The outpatient care options available for older adults with parkinsonian syndromes are limited due to the complexity of needs, resource intensity, and high level of clinical/knowledge expertise required. To address this care and knowledge gap, a collaborative care clinic was created at Unity Health, St. Michael’s Hospital, in Toronto in 2019 by Dr. Karen D’Silva, Geriatrician, with consultative expertise provided by Neurologist Movement Disorder Specialist, Dr. Thomas Steeves.

Purpose: To evaluate the impact of a collaborative care Geriatrics and Movement Disorders clinic.

Methods: Mixed methods design, combined semi-structured interviews and self-completed online questionnaires to explore perspectives of: 1) patients and caregivers 2) trainees who participated in the clinic between 2019 and 2024; and 3) Referring physicians (geriatricians, neurologists, family doctors). Content analysis will be conducted on the qualitative data and univariate analysis statistical tests on means and proportions will be conducted on the quantitative survey data.

Role of the student: may include work on any of the following aspects of the project depending on the student’s interest and the stage of the project at the time of the SOAR experience.

1. Relevant literature review and summary
2. Collation of participants names and contact information:
 - a. Patients and caregivers
 - b. Postgraduate trainees
 - c. Referring physicians
3. Creation of interview and survey questionnaires
4. Conducting interviews and submitting questionnaires
5. Data analysis
6. Preparation of manuscript for publication

2024 SOAR Project Submission – from St. Michael’s Hospital

Project title: Validation of diagnostic codes to identify older adults with traumatic brain injury in Ontario administrative databases

Supervisors: Drs. Jenny Yu Qing Huang and Jennifer Watt

Description of Project:

Introduction: Traumatic brain injuries (TBI) adversely affect cognitive functioning. Retrospective cohort studies using population databases such as the Ontario administrative databases could provide insight into the long-term outcomes associated with TBI, the effectiveness of TBI-related health interventions, and the need for healthcare services in people who experience TBI. We will estimate the accuracy and precision of algorithms for identifying TBI in older adults using health administrative data at ICES.

Methods: We will randomly select 681 participants \geq 65-year-old identified with at least one of the Canadian version of the 10th Edition of the Internal Classification of Diseases (ICD-10-CA) codes for TBI or five most common mechanisms of injury for TBI in older adults between April 1st 2002 to February 1st 2020. Patient health records were sampled from St. Michael’s Hospital (SMH) and Sunnybrook Health Science Centre (SHSC). A participant will be a case if diagnosed with TBI by a trained reviewer on chart abstraction. The true-positive reference standard consists of participants from SMH and SHSC identified with at least one TBI or mechanisms of injury (falls, “struck by/against”, unintentional injuries, assaults, sport and recreation) for TBI ICD-10-CA codes, with confirmed TBI diagnosis on chart abstraction. The true-negative reference standard consists of participants without a TBI diagnostic and do not have the diagnosis of TBI on chart abstraction. We will assess the accuracy and precision of TBI ICD-10-CA codes to identify older adults by calculating sensitivities, specificities, positive predictive values (PPVs), negative predictive values (NPVs), and likelihood ratios. Provincial and site-specific ethics board approval has been obtained.

Role of the student: With guidance and supervision, the SOAR experience summer student will be exposed to the extensive process of a rigorous validation study including chart abstraction, diagnostic codes synthesis, and TBI diagnosis classification and deliberation. This is an ideal project for a student interested in the topics of cognition, TBI, older adults and clinical epidemiology (relevant to future family physicians, geriatricians, psychiatrists, neurologists and clinician-epidemiologists) and validation study methodology. The student will work collaboratively with geriatricians and clinician-scientists, co-author the published manuscript, and participate in the Keenan Research Summer Student Program at St Michael’s hospital.

**2024 SOAR Project Submission – from St. Michael’s
Hospital**

Title: Utility of primers in completing comprehensive geriatric assessments amongst junior medical learners

Supervisor: Dr. Evelyn Cheung

Description of Project:

Background (Introduction):

Geriatric Medicine focuses on caring for older adults who often have complex medical issues. Learners often find comprehensive geriatric assessments (CGA) overwhelming and challenging as they encompass multiple domains and require a breadth of knowledge. Handouts may be useful in guiding these assessments.

A literature search was completed and there’s currently no literature on this topic. At this time, most University of Toronto affiliated hospitals provide learners with a CGA template describing sections included in a CGA. Throughout the rotation, learners will get teaching sessions on various geriatric syndromes but some sessions would be scheduled towards the end of the rotation. In addition, learners may be post call or on vacation when these sessions occur. As such, learning may not be optimal.

Goals and Objectives:

Assess whether distributing handouts on common geriatric syndromes entailing history and physical examination information improves learners’ comfort in performing geriatric assessments and subsequently enhance their learning

Project Outline:

A week prior of each rotation (all rotations are 4 week long), the program assistant (employee of Unity Health) will send out an orientation email. Within the email, the program assistant will include information about the study. During orientation which is led by physicians not involved in this study, the physician will mention the study to learners.

At the end of each rotation for the first 6 blocks, the needs assessment survey will be distributed to junior learners (medical students, internal medicine residents in their PGY 1 or 2 years, and other non internal medicine residents) by the program assistant. Physical copy will be provided and collected by the program assistant. The form asks learners to rate their comfort in performing a comprehensive geriatric assessment (CGA) at the end of the rotation and whether they think handouts would have helped.

After approximately 12 surveys are collected, the program assistant will distribute handouts (part of the orientation email) at the beginning of the rotation with information on how to assess common diseases they encounter during the rotation. At the end of the rotation, the learners will rate how comfortable they are with performing a CGA and whether the handouts were helpful. I will then analyze whether there's an improvement in score and also doing a qualitative analysis on their feedback about the handouts.

Role of the Student:

1. Perform literature review and write the background section
2. Collect surveys from clinic admin
3. Perform qualitative and quantitative analysis on survey results
4. Interpret survey results