

# Resident Project Day

## Abstract Collection

Department of Family Medicine

June 11<sup>th</sup>, 2025



## Overall Learning Objectives:

By the end of this program and within each session, participants will be able to:

1. Identify research and scholarly work in Family Medicine.
2. Acquire primary care knowledge through research.
3. Assess resident projects through feedback evaluations.
4. Participate in discussions about resident projects.

## CFPC (Mainpro+ Certified Activity)

This activity meets the certification criteria of the College of Family Physicians of Canada and has been certified by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University for up to XX Mainpro+® Certified Activity credits.

## Non-Financial Sponsorship Statement

This program has received no financial support.

25% of this program is dedicated to participant interaction.

## Resident Project Day 2024

June 11<sup>th</sup>, 2025

9:30 a.m. – 2:00 p.m.

Western Center for Public Health and Family Medicine (WCPHFM)

9:00 am – 9:30 am	<b>Registration</b>
9:30 am – 10:00 am	<p><b>Opening Remarks</b></p> <p>Dr. Daniel Grushka, Postgraduate Program Director</p> <p>Dr. Scott McKay, Chair</p> <p>Dr. Amanda Terry, Centre for Studies in Family Medicine</p>
10:00 am – 11:40 am	<p><b>Concurrent lightning oral presentations</b></p> <p>(Session A in Room 1120, Session B in Room 1150, Session C in Room 4006)</p>
11:40 am – 12:30 pm	<b>Lunch</b>
12:30 pm – 1:30 pm	<p><b>Concurrent lightning oral presentations</b></p> <p>(Session D in Room 1120, Session E in Room 1150, Session F in Room 4006)</p>
1:30 pm – 2:00 pm	<b>Closing Remarks</b>

## Lightning Oral Presentations – Concurrent Rooms 1120, 1150, and 4006

### Room 1120: Session A

Time	Presenter	Presentation
10:00 am	Dr. Menas Awad	Enhancing Cervical Cancer Screening in Primary Care Clinics in Windsor
10:10 am	Dr. Mikhail Brooks	Improving Obstructive Sleep Apnea Screening in Diabetic Patients Using STOP-BANG Questionnaire in Primary Care
10:20 am	Dr. Rachel Haywood and Dr. Monika Podbielski	Improving vaccination rates in 6 months to 5-year-old children
10:30 am	Dr. John Kelly	Improving adherence to follow-up appointments for patients with poorly controlled type 2 diabetes in primary care
10:40 am	Dr. Mark Rodrigues	Increasing Pneumococcal Vaccination Uptake in a Primary Care Clinic
10:50 am	Dr. Mohmeet Brar	Improving Lifestyle Modification Referrals for Pre-Diabetic Patients: A Quality Improvement Initiative
11:00 am	Dr. Maghsod Ekhlās, Dr. Kirsten Mooney, Dr. Arooba Talat	The Utilization of Chronic Disease Management Flowsheets to Improve Diabetic Care.
11:10 am	Dr. Hardeep Dhandli	Addressing the Family Medicine Physician Shortage in Ontario
11:20 am	Dr. Madeline Trupiano and Dr. Shahbaz Malik	Colorectal Cancer Screening at Central Lambton Family Health Team

**Room 1150: Session B**

Time	Presenter	Presentation
10:00 am	Dr. Joanna Walters	Incorporating Structured Exercise Counseling in Primary Care
10:10 am	Dr. Carly Alfano, Dr. Paul Banham, Dr. Advait Desai, Dr. Greg Yousif	Improving Patient Understanding of Home Blood Pressure Monitoring in Primary Care Settings
10:20 am	Dr. Mina Awad, Dr. Emma McIvor, Dr. Ethel Njoku, Dr. Boyan Woychyshyn	Improve the use of dietary services in diabetic patients over the age of 40 at Victoria Family Medical Centre
10:30 am	Dr. Khadija Bibi, Dr. Joseph Ghaly, Dr. Joseph Herbert, Dr. Ulanda Singh	Improving smoking status documentation at Victoria Family Medical Center (VFMC)
10:40 am	Dr. Arjan Dhoot, Dr. Winston Li, Dr. Sadek Mowakket, Dr. Kevin Zhang	Improving Tetanus Vaccine Uptake at Victoria Family Medical Centre
10:50 am	Dr. Omar Fayez, Dr. Vanessa Jacobelli, Dr. Reham Mansour, Dr. Vigneswaren Rajaendran, Dr. Rashidat Raji	Approach to improve Lifestyle Modification Discussions and Documentation during Diabetic Checks in Primary Healthcare Setting
11:00 am	Dr. Chinazom Aniebue, Dr. Nousheen Khan, Dr. Vaishnavi Marath Valappil, Dr. Saadiyah Rao, Dr. Fatima Zeeshan	Improving early advanced care planning awareness in patients above 80 years of age in family medicine.
11:10 am	Dr. Abdullah Haroon, Dr. Irrtaza Murtaza, Dr. Inmo Sung, Dr. Hanyan Zou	Improving baseline bone mineral density screening in men with normal risk aged 70 and older
11:20 am	Dr. Vikas Bansal, Dr. Matthew Bentley, Dr. Cameron Coatsworth, Dr. Natalie Evans	Does an AI scribe decrease the amount of time required for documentation in a regional family medicine clinic

Room 4006: Session C

Time	Presenter	Presentation
10:00 am	Dr. Jackson Blonde	Increasing Emergency Physicians' Confidence in Performing High Acuity Low Occurrence Procedures: A Quality Improvement Initiative
10:10 am	Dr. Geoffrey Ching	Rate of Missed Incidental Pulmonary Nodules in London Area EDs
10:20 am	Dr. Hecham Omar	Survey of Regional Block Performance Comfortability and Training at London Health Sciences Centre
10:30 am	Dr. David Zheng	Evaluating the perceptions of emergency physicians of clinical use of personal hearing amplifiers in the emergency department: a cross-sectional survey study
10:40 am	Dr. Ziad Sabaa-Ayoun	Local Lifelines: A Needs Assessment Study for a Medical Education Podcast Local to Southwestern Ontario
10:50 am	Dr. Ryan Gotesman	Validation of HEART Score in Patients Referred to Cardiac Clinic from London Health Sciences Center Emergency Department
11:00 am	Dr. Lanujan Kaneswaran	Improving Suboxone Initiation for Opioid Use Disorder in LHSC's Emergency Departments
11:10 am	Dr. Adam Aue	Scoping Review: How is Tranexamic acid used in Palliative Care?



## Session A

Dr. Menas Awad – Windsor

### Enhancing Cervical Cancer Screening in Primary Care Clinics in Windsor

Faculty Lead: Dr. Mohamad Saleh

Project Type: Quality Improvement

Cervical cancer is largely preventable through regular screening, yet it remains the 13th most common cancer among Canadian women, with an estimated 1,550 new cases and 400 deaths in 2023. Suboptimal screening uptake, influenced by cultural, logistical, and awareness barriers, continues to drive its incidence. This quality improvement (QI) project aimed to enhance cervical cancer screening rates in Windsor's primary care clinics by implementing evidence-based, patient-centered interventions. **METHODS:** A multi-phase PDSA cycle approach was used. Phase 1 implemented a poster campaign in clinic waiting areas to raise awareness and encourage scheduling of Pap tests. Phase 2 addressed cultural barriers by providing culturally sensitive counseling and educational pamphlets to Muslim women in partnership with a local mosque. Phase 3 incorporated cervical cancer screening discussions into routine non-urgent visits, emphasizing personalized education and facilitating scheduling. Data were collected via electronic medical records to track patient inquiries, appointments, and feedback through surveys and informal interviews. **RESULTS:** The interventions led to notable improvements in screening engagement. The poster campaign increased patient inquiries and awareness, while culturally tailored counseling in Phase 2 resulted in 85 women being counseled and 70 scheduling screenings. Phase 3 expanded reach, with 200 patients counseled and 130 agreeing to screening. Across all phases, patient preference for female providers emerged as a consistent barrier, underscoring the need for gender-sensitive care access. **CONCLUSION:** Evidence-based strategies, including targeted education, culturally sensitive approaches, and personalized provider-patient discussions, effectively improved cervical cancer screening rates. Future efforts should focus on addressing logistical barriers, enhancing EMR-based screening reminders, and increasing culturally tailored interventions to sustain and broaden impact.

Dr. Mikhail Brooks – Windsor

### Improving Obstructive Sleep Apnea Screening in Diabetic Patients Using STOP-BANG Questionnaire in Primary Care

Faculty Lead: Dr. Matthew DiBartolomeo

Project Type: Quality Improvement

**INTRODUCTION:** The issue with our clinic is that patients are not actively broaching the topic of obstructive sleep apnea unless they're symptomatic. Consequently, we as physicians are not regularly initiating discussions regarding sleep habits and snoring, for reasons including time constraints and occasional pushback from patients. Therefore, an opportunity is missed to discuss this extremely important preventative measure and encourage motivation and provide support. This quality improvement project will aim to improve the number of T2DM patients screened for OSA in one family medicine practice. **AIM:** The aim of this quality improvement (QI) is to increase OSA screening from 0% to 5% in patients with T2DM between the ages of 40 and 75 years over 4 months at WFH. I will be using the Plan-Do-Study-Act (PDSA) method. **INTERVENTION:** The STOP-BANG template was added into the EMR and once the patient's willingness to participate was received we went through the questionnaire during the visit. **DATA COLLECTION & ANALYSIS:** Each diabetic visit where the patient would fall into the age range of 45-70, we would go through the STOP-BANG questionnaire and they would be classified as low, moderate or high risk based on their score. Low risk being 0-2, moderate 3-4, high risk 5-8. **RESULTS:** The results of this project revealed the majority of patients fell into the low and moderate risk group. All patients were quite receptive and happily participated in the study. **DISCUSSION:** This QI project set out to improve the screening rate of OSA in diabetics. Based on the results it should be deemed as successful as there was a significant uptick in patients who found out that they were at moderate risk of having OSA. Most of these patients were asymptomatic. Adding this questionnaire and screening tool to the EMR has had a positive impact on our clinic as most of our diabetic patients were not aware of the fact that having diabetes places them at risk for OSA. This provided an opportunity for patient education. Referral for polysomnography was reserved for patients who were symptomatic or fell into the high-risk group. If I had to perform this again maybe next time we would also refer those patients falling into the moderate risk category.

Dr. Rachel Haywood and Dr. Monika Podbielski – Windsor

**Improving vaccination rates in 6 months to 5-year-old children**

Faculty Lead: Dr. Elia Huidovici

Project Type: Quality Improvement

**OBJECTIVE:** To increase uptake of flu vaccine in children ages 6 months to 5 years old by 10%-20% between October, 2024 and February, 2025. **METHODS:** Eligible patients were identified using EMR in a community family medicine practice. Parents of possible participants were called and encouraged to vaccinate their child. **RESULTS:** 55 eligible households were identified and parents were contacted. Of that, 5 children were brought by their parents for a flu vaccination resulting in a 10% increase in flu vaccination uptake compared to 1 year prior. **CONCLUSIONS:** Calling identified households to encourage flu vaccination amongst children was not an effective method of improving flu vaccination rates in a community family medicine practice.

Dr. John Kelly – Windsor

**Improving adherence to follow-up appointments for patients with poorly controlled type 2 diabetes in primary care**

Faculty Lead: Dr. Bart Kaczmarek

Project Type: Quality Improvement

There are over 4 million Canadians who have been diagnosed with diabetes and its prevalence is increasing at an estimated 3.3% per year. There are many complications associated with poor glycemic control and Diabetes Canada recommends regular physician follow-up appointments to optimize management. An estimated 12-36% of patients with type 2 diabetes do not attend their appointments regularly, leading to increased complications and hospitalizations. This quality improvement project aims to identify and reduce the number of patients with poorly controlled diabetes who have not recently had a follow-up appointment. Inclusion criteria were age less than 65, A1c > 8, and no diabetes appointment in the last 6 months. The interventions involved contacting a subset of these patients by confidential e-mail, while a second subset was later contacted by phone. These interventions resulted in 3/11 and 3/6 patients respectively attending a follow-up appointment. This reduced the number of patients meeting the study criteria by 6/17 (35%). No new patients met criteria throughout the 3-month period studied. Our balance measures were not significantly impacted as the project was not time-consuming and did not affect the clinic schedule. Most patients who did book a follow-up appointment were found to be non-compliant with their medications and had A1c values slightly higher than their last value on record. These patients benefited from medication refills and lifestyle counselling. In conclusion, telephone reminders could be implemented on an annual basis to decrease the number of patients meeting the study criteria without requiring substantial time and resources.



Dr. Mark Rodrigues – Windsor

**Increasing Pneumococcal Vaccination Uptake in a Primary Care Clinic**

Faculty Lead: Dr. Seema Aggarwal

Project Type: Quality Improvement

*Streptococcus pneumoniae* infection is well established as a significant cause of morbidity and mortality in the 65+ population. Ontario has government funded programs for those who are 65+ as a result. However, despite these funded programs, the overall vaccine uptake is well below the target level. The aim of the project was to increase the overall number of eligible patients in Dr. Aggarwal's practice, who are adequately vaccinated against *streptococcus pneumoniae* by 3-5% in approximately 2 months compared to the baseline. The baseline rate was seen to be 57.2%. A baseline of approximately 2 weeks was monitored to see how this percentage changed without any interventions, in which one person was vaccinated changing the percentage to 57.4%. Interventions initiated with a poster in the waiting room of the office for patients to get rapid and accurate information to prompt discussion with their healthcare practitioner. The second PDSA cycle included putting a poster in the patient rooms used by the attending physician and resident to prompt the patient as well as remind the practitioner about discussing pneumococcal vaccination. Variables assessed included qualitative feasibility for physicians and support staff, appointment times and satisfaction, as well as the number of patients adequately vaccinated. The results of the PDSA cycles met the target increase in pneumococcal vaccination by 3%. No significant barriers from the physician, support staff, or patient perspective were identified.

Dr. Mohmeet Brar – Goderich

**Improving Lifestyle Modification Referrals for Pre-Diabetic Patients: A Quality Improvement Initiative**

Faculty Lead: Dr. Tamra Steinmann

Project Type: Quality Improvement

This quality improvement (QI) project aimed to increase dietitian referrals for pre-diabetic patients in a family practice. The intervention was carried out through two Plan-Do-Study-Act (PDSA) cycles. In PDSA 1, stick-on notes, including electronic reminders, were placed on the computer screens of four preceptors to prompt dietitian referrals for patients with pre-diabetes (HbA1c 6.1%-6.4%). Over one month, 14 pre-diabetic patients visited the clinic, and 7 (50%) received a referral, a significant increase from the baseline rate of 0.04%. Follow-up revealed that 5 patients attended dietitian appointments, and 3 successfully reduced their HbA1c to below 6. In PDSA 2, physicians received a verbal reminder to refer pre-diabetic patients. This intervention resulted in 12 pre-diabetic patients visiting the clinic, with 3 (25%) receiving a referral, still above the baseline but less effective than PDSA 1. Physicians noted that time constraints and competing priorities led to occasional forgetfulness of the reminder. The project highlighted that non-intrusive reminder systems, such as stick-on notes, are effective in prompting lifestyle management and dietitian referrals. However, the verbal reminder in PDSA 2 was less consistent. A more structured, EMR-based system—such as a referral flag or sticker—could ensure more reliable implementation. The findings suggest that simple reminder interventions can significantly improve care by increasing dietitian referrals for pre-diabetic patients, with potential for widespread adoption in primary care settings.

Dr. Maghsod Ekhlash, Dr. Kirsten Mooney, Dr. Arooba Talat – Hanover

**The Utilization of Chronic Disease Management Flowsheets to Improve Diabetic Care.**

Faculty Lead: Dr. Tim Heerema

Project Type: Quality Improvement

Diabetes Mellitus poses a formidable health challenge in Canada, with an estimated overall prevalence of 8.9%. Beyond the physical toll on the patients there are multiple long-term complications including neuropathy, retinopathy, and amputations. Studies have shown that diabetic flow sheets can improve adherence to guidelines and enhance the quality of care for diabetes. For this QI project our goal was to enhance the rates of CDM flowsheet utilization within our primary care setting and ultimately reduce the potential complications by early detection. We selected 70 Diabetic patients that did not have a CDM flowsheet completed within the past year. For our first PDSA cycle we constructed an informational email with an educational video describing the benefits of quarterly flowsheets to the staff, residents and physicians in our clinic. We saw that 31 patients out of 70 (44%) had a CDM flowsheet utilized. For our second PDSA cycle we set a reminder in the charts of 70 patients to prompt the staff and physicians to not only use the diabetic CDM flowsheets but to also proactively encourage follow up, blood work and in person clinic visits for a comprehensive diabetic preventative care. We saw that 36 patients out of 70 (51%) had a CDM flowsheet utilized. We found regular CMEs and EMR reminders help busy physicians and healthcare workers to stay up to date with the latest guidelines and are effective prompts to encourage CDM Flowsheet utilization within our primary care setting and ultimately benefiting diabetic patient health outcomes.

Dr. Hardeep Dhandli – Hanover

**Addressing the Family Medicine Physician Shortage in Ontario**

Faculty Lead: Dr. Marc Labelle

Project Type: Literature Review

Ontario faces a critical shortage of family medicine physicians, disproportionately affecting rural communities and resulting in compromised healthcare access and outcomes. This literature review explores various strategies to address this shortage, including adopting the United Kingdom's residency matching model, enhancing integration and training programs for International Medical Graduates (IMGs), reducing physician burnout through systemic support, and extending return-of-service (ROS) obligations. Analysis suggests that integrating these evidence-based strategies could significantly mitigate Ontario's primary care crisis, improving equitable healthcare distribution and retention, especially in rural regions.

Dr. Madeline Trupiano and Dr. Shahbaz Malik – Petrolia

**Colorectal Cancer Screening at Central Lambton Family Health Team**

Faculty Lead: Dr. Justin Mall

Project Type: Quality Improvement

Colorectal cancer (CRC) is a leading cause of cancer-related morbidity and mortality in Canada, with early detection through organized screening programs significantly improving outcomes. At the Central Lambton Family Health Team (CLFHT), baseline data indicated that slightly more than half of eligible patients were up to date with fecal immunochemical testing (FIT). This Quality Improvement initiative aimed to enhance CRC screening rates by implementing targeted interventions over our residency program. Two Plan-Do-Study-Act (PDSA) cycles were completed. The first involved the development and distribution of educational brochures to improve patient knowledge regarding CRC screening. The second involved a presentation to our main preceptor whose roster of patients we were analyzing to increase provider awareness and promote evidence-based screening practices. Despite these efforts, no immediate improvement in FIT completion rates was observed. Several barriers were identified, including time constraints during clinical encounters, patient-level delays in test completion, and external factors such as postal service disruptions. The findings underscore the need for broader, system-level interventions and longer evaluation periods to effect meaningful change. Future directions include implementing centralized reminder systems and clinic-wide educational initiatives to improve screening uptake, with emphasis particularly among newly eligible patients aged 50 to 60 years.

## Session B

### Dr. Spencer Pearce and Dr. Joanna Walters – Chatham **Incorporating Structured Exercise Counseling in Primary Care**

Faculty Lead: Dr. Paul Ricketts

Project Type: Quality Improvement

Only about 6% of Canadians achieve the 24-hour movement guidelines recommendation which includes at least 150 minutes per week of moderate to vigorous aerobic activities, muscle strengthening and reduction of sedentary behaviours. 25% of the respondents from a 2018 survey believed that primary care providers have a role in helping to address the reduced activity levels among Canadians. The benefits of exercise are expansive and well documented; including improved sleep quality, reduction in anxiety and blood pressure, improved brain and health, cancer prevention, healthy weight and improved bone strength, balance and coordination. This QI project focused on the patients living with diabetes. Our project found that lack of time was the biggest barrier to primary care physicians incorporating this more in their practice. Further, there is no formal education on providing exercise counseling. This was similar to what was found in the literature as well. The process measure was to implement a revised DM template that documented structured exercise counseling. This was defined by documentation indicating at least 3 of 4: type, duration, intensity, and frequency. Though the revised template was not adopted as much, there was still a significant improvement in the primary outcome measure from 5.6% to 41.7% of DM visits documenting more structured exercise counseling. The results suggest that clinician awareness led to a significant improvement and the use of exercise prescriptions in PDSA 2 demonstrated that this is a great way to provide this information in a time efficient and evidence based way.

### Dr. Carly Alfano, Dr. Paul Banham, Dr. Advait Desai, Dr. Greg Yousif – Windsor / Chatham **Improving Patient Understanding of Home Blood Pressure Monitoring in Primary Care Settings**

Faculty Lead:

Project Type: Quality Improvement

Hypertension affects approximately 1 in 4 Canadian adults and remains a leading modifiable risk factor in cardiovascular disease worldwide. Fortunately, improvements in screening, diagnosis, and management have helped optimize cardiovascular health. When assessing blood pressure (BP) control, many practitioners recommend home monitoring to account for variations in the office setting. In a cohort of 36 patients, 53% reported acceptable levels of understanding regarding how to check BP at home, meaning about half of this sample had limited understanding. This lack of understanding may be due to clinic time constraints or variations in patient health literacy. Using a five-point likert response style scale to quantify the degree of patient knowledge, we aimed to improve the subjective understanding of how to check home BP in patients with hypertension who self-monitor, specifically reporting a score of four or greater, by 10% by April 28th, 2025. To attain this outcome, we proposed the following change ideas: 1) Provide a standardized infographic containing step-by-step instructions on how to check home BP, and 2) Provide patients with a link to an online educational video about hypertension and home monitoring. During PDSA Cycle #1, a 15% increase in self-reported understanding of home BP monitoring was achieved. The second PDSA cycle showed a 18% increase in self-reported understanding of home BP monitoring. This study highlights the importance of providing health-related information to optimize patient wellbeing.

Dr. Mina Awad, Dr. Emma McIvor, Dr. Ethel Njoku, Dr. Boyan Woychyshyn – VFMC

**Improve the use of Dietary services in Diabetic patients over the age of 40 at Victoria Family Medical Centre.**

Faculty Lead: Dr. Christina Cookson

Project Type: Quality Improvement

Approximately 1 in 3 Canadians are affected by Diabetes according to Diabetes Canada. Diabetes is a chronic disease which affects many Canadians and has significant complications increasing mortality. In Primary Care we diagnose and manage many patients with Diabetes throughout their life. Successful management of Diabetes involves a multi modal approach including lifestyle management and medications. The emphasis on lifestyle factors including the importance of a healthy well-balanced diet in glycemic control is often poorly discussed. This quality improvement project implemented new strategies to increase discussion regarding the importance of a healthy well-balanced diet in Diabetes and aim to increase the use of Dietary services. Our aim was to increase the use of dietary services among diabetics over age 40 attending Victoria Family Medical Centre. The strategies employed in this QI project were distribution of 100 pamphlets and poster advertisements in waiting area and consultation rooms to highlight dietary recommendations in diabetes and encouraging patients to see the Dietician at our clinic for further dietary advice. The results of our QI project showed increased dietician referrals, but this was not a meaningful change nor our target goal. We were able to increase dietician referral from 9.4% to 10.9% during our study period. Though this was below our goal of 25%, it was however still an improvement from baseline. Most patients with well controlled diabetes were less likely to accept a dietician referral. Future QI projects can focus on improving uptake of dietary services among patients whose HbA1c were not at target.

Dr. Khadija Bibi, Dr. Joseph Ghaly, Dr. Joseph Herbert, Dr. Ulanda Singh – VFMC

**Improving smoking status documentation at Victoria Family Medical Center (VFMC)**

Faculty Lead: Dr. Christina Cookson

Project Type: Quality Improvement

Smoking is the leading preventable cause of death and disability in Ontario. Brief counseling doubles patients' quit rates. However, smoking status is infrequently updated, and unstandardized documentation hinders data extraction for quality improvement initiatives. The study aim was to improve the proportion of patients seen per day with smoking status documented according to the electronic medical record's guide from 19.4% to 35% over 12 weeks. Process measures included the date of last smoking status update; whether this occurred at last visit; and the proportion of active patients with status documented correctly. Balance measures included the proportion of visits exceeding scheduled duration, and qualitative feedback from staff. Data was collected April - October 2024, one day per week, by reviewing charts of the first five eligible patients from each of 4 clinical teams. Baseline data collection (12 weeks) preceded 3 PDSA cycles. PDSA 1 taught staff the protocol for smoking status documentation. PDSA 2 and 3 introduced a toolbar and check box respectively to prompt smoking status documentation. The percentage of patients seen with correctly documented smoking status increased sequentially from 19.4% at baseline to 43.3%, 66.3% and 74.0% over the PDSA cycles. Consultations exceeded their scheduled duration more frequently with PDSA 2-3, but staff reported high satisfaction. Potential limitations included selection bias; sampling was consecutive (non-random) and recently seen patients were not excluded. However, clinical teams increased the percentage of their total active patient population with smoking status correctly documented by 14.1% on average.

Dr. Arjan Dhoot, Dr. Winston Li, Dr. Sadek Mowakket, Dr. Kevin Zhang – VFMC

**Improving Tetanus Vaccine Uptake at Victoria Family Medical Centre**

Faculty Lead: Dr. Christina Cookson

Project Type: Quality Improvement

**INTRODUCTION:** Tetanus, a potentially fatal disease caused by *Clostridium tetani*, remains a public health concern despite the availability of effective vaccines. Suboptimal tetanus vaccine uptake poses a significant challenge in achieving population-wide immunity. This study aims to improve tetanus vaccine uptake in primary care clinics by focusing on the proportion of visiting patients aged 18 and older who are not up to date on their tetanus vaccination and aiming to reduce this by 5% within a 4-week period. **METHODS:** Three PDSA cycles each lasting 1 week were implemented. For PDSA 1, EMR reminders for tetanus vaccinations were used in eligible patients. For PDSA 2, discussions of EMR reminders during the QI project meeting were reinforced to staff members. For PDSA 3, EMR reminders for tetanus vaccination were reinforced to all residents. PDSA 4 could not be implemented due to time constraints. Using Telus PS Suite EMR, a search strategy was created to calculate the percentage of patients ages 18 and older NOT up to date on their tetanus vaccine who had an appointment at VFMC. Results were then compared to the baseline to assess for improvement. **RESULTS:** The baseline rate of patients who were not up to date on tetanus vaccination was 32%. PDSA 1 resulted in a 0.9% reduction compared to baseline. There was no additional improvement with PDSA 2. PDSA 3 resulted in a 2.8% reduction compared to baseline. **CONCLUSION:** There was an improvement in tetanus vaccine uptake with EMR reminders.

Dr. Omar Fayez, Dr. Vanessa Jacobelli, Dr. Reham Mansour, Dr. Vigneswaren Rajaendran, Dr. Rashidat Raji – SJFMC

**Approach to improve Lifestyle Modification Discussions and Documentation during Diabetic Checks in Primary Healthcare Setting**

Faculty Lead: Dr. Saadia Jan

Project Type: Quality Improvement

Having physicians counsel patients on lifestyle modifications can further improve the prognosis of type 2 diabetes by providing personalized guidance and support from trusted healthcare professionals. Research suggests that physician-led counseling can enhance patient adherence to lifestyle interventions and lead to better clinical outcomes. For instance, a study published in JAMA Internal Medicine found that patients who received lifestyle counseling from their physicians experienced greater reductions in HbA1c levels compared to those who did not receive such counseling (Lin et al., 2014). This highlights the crucial role of healthcare providers in delivering effective lifestyle interventions and improving glycaemic control among diabetic patients. Moreover, physician-led counseling can foster a collaborative relationship between patients and providers, empowering individuals to take an active role in managing their condition. By addressing patient-specific barriers and tailoring recommendations to individual needs, physicians can enhance the effectiveness of lifestyle interventions and promote sustained behavior change (Di Loreto et al., 2010). Incorporating counseling into routine clinical practice allows physicians to reinforce key messages during regular appointments and monitor patient progress over time. This continuous support and guidance are essential for helping patients adopt and maintain healthy lifestyle habits, ultimately leading to better diabetes management and reduced risk of complications. Overall, physician-led counseling plays a crucial role in improving the prognosis of type 2 diabetes by providing evidence-based guidance, fostering patient engagement, and promoting long-term behavior change.



Dr. Chinazom Aniebue, Dr. Nousheen Khan, Dr. Vaishnavi Marath Valappil, Dr. Saadiyah Rao, Dr. Fatima Zeeshan – SJFMC

**Improving early advance care planning awareness in patients above 80 years of age in family medicine**

Faculty Lead: Dr. Saadia Jan

Project Type: Quality Improvement

**BACKGROUND:** Advance care planning (ACP) is a critical component of patient-centered healthcare because it ensures that people's values and preferences are respected in end-of-life decision-making. However, conversations about ACP, particularly for patients aged 80 and up, are frequently insufficient or delayed until a crisis occurs. The subject of this talk focuses on ways for increasing early ACP discussions in family medicine for this specific group. When it comes to ACP, patients over the age of 80 confront distinct problems and opportunities. The purpose of this project is to emphasize the need of starting ACP conversations early in patients' care, with a focus on the following points: 1. Proactive Identification-Identification of individuals over the age of 80 who may benefit from ACP conversations should be a standard part of family physician practice. This includes monthly evaluations of their overall health as well as any changes in medical issues. 2. Inclusive Approach- Involving family members in ACP talks can provide support for older people while also facilitating a full understanding of their beliefs and goals. 3. Timing and Reevaluation-It is critical to initiate ACP talks during frequent office visits and to reassess the plan on a regular basis in order to adapt to changing conditions and guarantee that the patient's preferences are up to date. By following these strategies, family medicine practitioners can improve the well-being of elderly patients by fostering autonomy and respecting their preferences, hence optimizing the quality of treatment and end-of-life experiences in this age group. **METHOD:** For this QI project, we conducted 3 PDSA cycles to test different strategies for improving ACP discussions for routine patient visit. These cycles included visual prompts, pre visit phone calls and EMR prompts. **RESULTS:** The interventions led to a progressive improvement in ACP discussions, with rates increasing from baseline to 35.7% in Cycle 2 and 58.6 % in Cycle 3. These findings demonstrate that pre-visit patient education and clinician prompts are effective strategies for increasing ACP awareness among older adults. **CONCLUSION:** A structured, multi-cycle QI approach effectively improved ACP awareness and discussions in our target population. Future efforts will focus on sustaining and scaling these interventions across other patient groups.

Dr. Abdullah Haroon, Dr. Irrtaza Murtaza, Dr. Inmo Sung, Dr. Hanyan Zou – SJFMC

**Improving baseline bone mineral density screening in men with normal risk aged 70 and older**

Faculty Lead: Dr. Saadia Jan

Project Type: Quality Improvement

Osteoporosis remains an underrecognized and undertreated condition among older men in Canada, despite its significant contribution to morbidity and mortality through fragility fractures. The 2023 Osteoporosis Canada Guideline recommends an initial bone mineral density (BMD) test for all individuals aged 70 and older, with screening starting at age 65 or 50 if there are at least 1 or 2 clinical risk factors, respectively. However, evidence shows that age-matched men remain under screened compared to women. In Ontario, only 15% of eligible men aged 65 and older were screened in 2018, compared to 44% of women (Thériault et al., 2023). This study was done prior to the guideline update which increased the age of universal screening to 70. This disparity persists despite worse post-fracture outcomes in men. This is in part due to the perception that osteoporosis is a disease of the postmenopausal woman, therefore leading to the undertreatment of osteoporosis in men. This quality improvement project aims to increase the rate of BMD screening in men aged 70 and older within a family medicine teaching clinic in London, Ontario. A root cause analysis identified key barriers, including limited provider awareness of new guidelines, lack of standardized clinic protocols, and limited patient awareness regarding osteoporosis screening. Planned interventions include electronic medical record (EMR) prompts, targeted provider education, and identifying eligible patients and discussing screening. By enhancing adherence to screening recommendations, this initiative seeks to reduce the burden of osteoporotic complications in older men and promote equity in preventive care delivery.



Dr. Vikas Bansal, Dr. Matthew Bentley, Dr. Cameron Coatsworth, Dr. Natalie Evans – Ilderton

**Does an AI scribe decrease the amount of time required for documentation in a regional family medicine clinic**

Faculty Lead: Dr. Darren Van Dam

Project Type: Quality Improvement

This quality improvement (QI) project looked at reducing documentation time in a regional family medicine clinic. Two Plan-Do-Study-Act (PDSA) cycles were completed. In Cycle 1, Fluent AI was implemented, leading to a small reduction in documentation time. In Cycle 2, Heidi AI was used, showing a similar decrease. Time spent documenting before and after each cycle was tracked, and provider feedback was collected. Patient consent for AI scribe use was obtained, with none opting out. Both AI scribes led to modest decreases in documentation time. Providers noted improved efficiency, though the overall impact was limited. AI scribes can contribute to reduced documentation time in a family medicine setting, though current benefits are modest. Ongoing refinement and training of AI scribes may enhance their effectiveness.

## Session C

Dr. Jackson Blonde – PGY3 Emergency Medicine

**Increasing Emergency Physicians' Confidence in Performing High Acuity Low Occurrence Procedures: A Quality Improvement Initiative**

Faculty Lead: Dr. Shawn Segreen

Project Type: Quality Improvement

PROJECT TITLE: Increasing Emergency Physicians' Confidence in Performing High Acuity Low Occurrence Procedures: A Quality Improvement Initiative

BACKGROUND: Exposure to High Acuity Low Occurrence (HALO) procedures is less common in rural communities and therefore it may be harder to maintain these skills<sup>1</sup>. Using Dynamic Simulation skills sessions, our aim was to increase the percentage of Emergency Medicine physicians in Milton, Grimsby and Strathroy who report being at least "Fairly Confident" with each HALO procedure by 50% by February 1st, 2025. DESIGN: In each community, groups of participants rotated through various HALO procedure stations. Each station involved interacting with hands-on models with real time feedback from course providers. Surveys were distributed before and after the sessions to quantify changes to participant's self-perceived confidence regarding each HALO procedure on a 4-point Likert scale. RESULTS: The majority of participants were CCFP (23/49) or CCFP-EM (18/49) trained and 20/49 (40.8%) were less than 5 years into practice. Most had previous experience with simulation (33/49). After the sessions, there was a  $\geq 50\%$  increase in the number of participants reporting at least "Fairly Confident" for 4 out of 7 HALO procedures. The increase in participants reporting at least "Fairly Confident" was statistically significant for all procedures. The percentage of participants rating the skill stations "fairly/very useful" was 93.9% or greater for all procedures. Qualitatively, participants greatly appreciated the "hands-on" experience. DISCUSSION: Our results suggest that Dynamic Simulation sessions are effective at increasing physician's confidence in performing HALO procedures, at least in the short term. Future improvements would focus on creating higher-fidelity paracentesis models, incorporating equipment from each local emergency department, and to assess long-term retention of confidence by sending out follow-up surveys 4-6 months later.

Dr. Geoffrey Ching – PGY3 Emergency Medicine

**Rate of Missed Incidental Pulmonary Nodules in London Area EDs**

Faculty Lead: Dr. Taylor Bechamp

Project Type: Quality Improvement

Pulmonary nodules can be detected during cross-sectional imaging of the chest. Generally, pulmonary nodules can be classified by the Fleischner Criteria; these guidelines were developed based off the risk of progression of these nodules to pulmonary malignancy. Due to a variety of reasons including but not limited to deficiencies in interdepartmental communication policies and lack of clear workflows to ensure patient follow up on incidental findings on CT, pulmonary nodules can be missed. This retrospective chart review by 3 trained research associates analyzed over 8000 CT exams acquired between May 2022 and May 2023. A set of inclusion criteria for terms describing pulmonary nodules was sourced from a previous radiology paper on the topic. The reviewers identified any pulmonary nodules on these CT images that were greater than or equal to 5 mm in size, have ground glass appearance, or a subsolid appearance. Overall, 13% of CT scans reviewed were found to have any pulmonary nodule, of which less than 37% were found to have pulmonary nodules that required follow up. No clear pathways for follow up were evident within our dataset, and only 28% of the Fleischner positive nodules were followed up within a year for serial imaging. Pulmonary nodules are not an uncommon incidental finding among ED CTs. While follow up within one year is variable, it is clear that means to automate follow up of details relevant to long-term patient outcomes in an era of increased use of cross-sectional imaging may be warranted.

Dr. Hecham Omar – PGY3 Emergency Medicine

**Survey of Regional Block Performance Comfortability and Training at London Health Sciences Centre**

Faculty Lead: Dr. Marcus Van Arsen

Project Type: Research

Pain is a leading complaint among patients presenting to emergency departments, stemming from acute, acute-on-chronic, or chronic pathologies. While moderate-to-severe pain is often managed with opioids, their use is associated with significant side effects and the potential for harm. Peripheral nerve blocks offer an effective alternative, with evidence suggesting superior pain control compared to systemic opioid analgesia. A prospective survey was conducted among Emergency Medicine resident and staff physicians at London Health Sciences Centre, yielding 24 responses from 130 potential participants. The survey collected anonymous demographic data and explored the number and types of nerve blocks performed, previous training and experience, perceived barriers to performing nerve blocks, and interest in further education. Findings revealed that physicians were more likely to utilize nerve blocks with which they had greater familiarity and comfort. The ring block emerged as the most frequently used technique, with 23 of 24 respondents reporting high comfort levels. The primary barrier to broader use of nerve blocks was unfamiliarity with specific techniques, cited by 18 respondents. Furthermore, 21 respondents indicated that additional training would enhance their confidence in performing nerve blocks, and 14 expressed interest in pursuing further education. Overall, the survey highlights a strong interest among emergency physicians in expanding their use of nerve blocks. However, limited technical familiarity remains a significant obstacle. These findings suggest that integrating more comprehensive training into residency curricula could facilitate greater adoption of nerve blocks, ultimately improving pain management practices and patient outcomes in emergency care settings.

**Dr. David Zheng – PGY3 Emergency Medicine****Evaluating the perceptions of emergency physicians of clinical use of personal hearing amplifiers in the emergency department: a cross-sectional survey study**

Faculty Lead: Dr. Neil Sengupta

Project Type: Survey Study

Two thirds of adults over 70 years old have clinically significant hearing loss placing them at higher risk of emergency department (ED) use and mortality. Personal Hearing Amplifiers (PHAs) can improve communication with older adults in the ED, as shown in a single-centre pilot study. A 2024 scoping review identified a lack of PHA use. This study's objective was to assess adult ED physicians' perceptions of ED PHA use through a cross-sectional survey of ED physician CAEP members who consented to receive surveys. Data analysis was primarily descriptive with results displayed as percentages. Differences between academic and community physicians were assessed using chi-square analysis. The survey was distributed to 982 clinicians with 64 responses (response rate 6.5%). Most clinicians (75%) were aware of PHAs, but 68% stated that there were not available in their ED or were unsure. After using non-PHA strategies to communicate, most clinicians did not believe the patient had as good of understanding as someone with normal hearing. Most clinicians (85%) believed they would benefit from having PHAs in the ED. The most important facilitator to PHA use was having "minimal impact to workflow/efficiency". Top ranked barriers to PHA use were both "staff's lack of awareness of PHAs" and "misplacing PHAs". There was no statistical difference in Chi-square analysis of clinicians working at academic versus community EDs. Based on the top-ranked barriers, EDs should continue to raise awareness of and promote PHA use, consider strategies to prevent misplacing PHAs and provide training to minimize impact to workflow.

**Dr. Ziad Sabaa-Ayoun – PGY3 Emergency Medicine****Local Lifelines: A Needs Assessment Study for a Medical Education Podcast Local to Southwestern Ontario**

Faculty Lead: Dr. Munsif Bhimani

Project Type: Needs Assessment Project

**BACKGROUND:** Multimedia tools, such as podcasts, play a large role in self-directed medical education among healthcare providers. While the content and practice patterns from these podcasts can be generalized to the average emergency physician, they fail to cover cases, diseases, and patient populations that may be unique to certain hospitals and regions. To our knowledge, such podcasts are not currently in production. **AIM:** We conducted a needs assessment survey, which aimed to characterize the need for a local medical podcast called Local Lifelines, that reviews emergency medicine cases that are unique to Southwestern Ontario, Canada. **MEASURES AND DESIGN:** Physicians and residents practicing emergency medicine across this region were invited to complete an online survey reviewing the role of multimedia tools in their practice, and the anticipated benefit of the Local Lifelines podcast. The survey was distributed to approximately 10 centers across Southwestern Ontario. **RESULTS:** 44 physicians completed the survey, with 48% of them practicing at an academic hospital. 80% of respondents endorsed using podcasts as a form of self-directed learning. 65% of respondents reported a perceived benefit from the podcast with respect to their own patient care, and 73% believed it would improve knowledge-sharing and collaboration. **DISCUSSION:** Emergency physicians have identified a need for a podcast that highlights cases unique to Southwestern Ontario. The Local Lifelines podcast would serve to improve knowledge and practice patterns among these healthcare professionals. Currently, a pilot project is being implemented, with the production and release of Local Lifelines to emergency physicians in Southwestern Ontario.

**Dr. Ryan Gotesman – PGY3 Emergency Medicine**

**Validation of HEART Score in Patients Referred to Cardiac Clinic from London Health Sciences Center Emergency Department**

Faculty Lead: Dr. Andrew Helt

Project Type: Chart Review

**INTRODUCTION:** Chest pain is one of the most common presentations in the emergency department. The history, electrocardiogram, age, risk factors and troponin (HEART) score is a widely used, validated risk scores for chest pain. The HEART score assigns a score based on a sum of five clinical variables to predict the 6-week risk for major adverse cardiac events, defined as acute myocardial infarction, percutaneous coronary intervention, coronary artery bypass graft or death. The validity of the HEART score in the LHSC emergency department patient population has not been extensively studied. **METHODS:** A retrospective chart review was performed to identify patients who presented to the ER at LHSC with chest pain that were discharged with referral to the outpatient cardiac clinic. Inclusion criteria included age  $\geq 18$  years old, calculated HEART score and cardiac clinic appointment. Exclusion criteria included patients with diagnosis of acute coronary syndrome in ER and patients with HEART score  $\geq 7$ . **RESULTS:** A total of 116 patient charts were extracted. The rates of 6-week MACE in LHSC ED patients with chest pain and low or medium risk HEART scores were essentially identical (2.5% vs 2.5% and 19.4% vs 20.3%) to the original HEART study, validating the score in this population. Median wait time to be seen in chest pain clinic was about 2 months. **CONCLUSION:** This study provides supportive evidence for using the HEART score as a stratification tool for LHSC emergency department patients with chest pain.

**Dr. Lanujan Kaneswaran – PGY3 Emergency Medicine**

**Improving Suboxone Initiation for Opioid Use Disorder in LHSC's Emergency Departments**

Faculty Lead: Dr. Chris Byrne

Project Type: Quality Improvement

**PROBLEM CHARACTERIZATION:** Opioid-dependent patients often access our emergency departments (EDs) for medical care. ED-initiated buprenorphine is associated with increased addiction treatment engagement at 30 days, reduced self-reported illicit opioid use, decreased used of inpatient addiction treatment services, and overall decrease in opioid-related mortality. Although there is sufficient evidence supporting initiation of suboxone in the ED, models for implementing ED-initiated buprenorphine have been described and are even pursued locally at London Health Sciences Centre (LHSC) and Windsor Regional Hospitals (WRH), suboxone prescribing rates continue to be poor at LHSC's EDs. Further interventions in prescribing pathways may address this issue and alleviate prescribers' concerns with lack of time or comfort in providing this important treatment. **PROJECT PRIMARY OBJECTIVE:** The objective of this study is to improve suboxone prescribing rates in discharged opioid use disorder patients. **MEASURES:** This outcome will be measured with periodic chart reviews of LHSC's EDs discharged patients over a fixed duration of time (e.g. 1 month). Inclusion criteria can include opioid-related ICD diagnostic codes, and age over 16 years old. Exclusion criteria was hypersensitivity to buprenorphine or naloxone, current opioid use disorder treatment, acute alcohol or benzodiazepine intoxication/withdrawal, severe liver disease, critically ill patients, patients admitted to hospital, patients that left prior to assessment, or inability to consent. **PROJECT DESIGN:** This project was approached as a quality improvement (QI) study, with its first PDSA cycle's action being the creation and distribution of a poster. This poster recommended adding a buprenorphine order set with dosing choices. **EVALUATION/RESULTS:** Pending. **INTERPRETATION AND IMPACT:** Pending.

Dr. Adam Aue – PGY3 Palliative Care

**Scoping Review: How is Tranexamic acid used in Palliative Care**

Faculty Lead: Dr. Gil Schreier

Project Type: Scoping Review

**BACKGROUND:** Tranexamic acid is an anti-fibrinolytic agent used to slow or stop bleeding in various clinical contexts. While the use of tranexamic acid and other anti-fibrinolytic agents is well described for surgical and therapeutic indications, its use in palliative care populations is not well understood. This is a scoping review of literature pertaining to the use of tranexamic acid for the management of bleeding in palliative care. **METHODS:** A scoping review of the literature was completed following PRISMA-ScR. We included all publication types involving the use of tranexamic acid for effects on bleeding of any source, all routes of administration, involving adult patients, in a palliative care setting. We searched Medline, EMBase, CINAHL, Scopus, Web of Science, Cochrane Library, and grey literature databases. The search was conducted between January and February 2025. **RESULTS:** 23 articles met all criteria and were included for review: 6 case reports, 9 case series, 2 cross-sectional surveys, 2 retrospective chart reviews, and 4 systematic reviews. All studies recommended the use of tranexamic acid for the management of bleeding in the palliative care setting. Several mild adverse events were observed, and no serious side effects were reported. **CONCLUSION:** Tranexamic acid offers an effective tool for the management of bleeding in diverse clinical settings. The articles identified support its use in the palliative care setting, in patients with advanced disease states with a focus on symptom control. However, to date the available literature is limited, with low statistical power.

### Room 1120: Session D

Time	Presenter	Presentation
12:30 pm	Dr. Madiha Akbar, Dr. Anum Khalid, Dr. Parastoo Pournaghshaband	Enhancing Hypertension Management in Diabetic Patients Aged 45-65: A Quality Improvement Initiative at Byron Family Medical Centre
12:40 pm	Dr. Carol He and Dr. Ruth Neumann	Improving frequency of photo documentation in assessment of suspected malignant skin lesions
12:50 pm	Dr. Philippe Kramer	An Overview of the Use of Point-of-Care Ultrasound (POCUS) in Family Medicine: Prevalence, Outcomes, Implementation into Practice, and Barriers to Adoption
1:00 pm	Dr. Rabiya Niaz, Dr. Ifedolapo Okunowo, Dr. Mehwish Saif, Dr. Ismat Tahira	Reducing over-utilization of Complete Blood Count (CBC) in an academic Family Medicine Practice
1:10 pm	Dr. Simon Bahru	Improving the Management of Type 2 Diabetes Mellitus in Primary Care Through a Multidisciplinary Approach: A Retrospective Study of the Mini Diabetes Clinic at Byron Family Medical Centre (BFMC)
1:20 pm	Dr. Ryan DeVrieze	Methadone Use in LTC: Physician Attitudes and Opinions

### Room 1150: Session E

Time	Presenter	Presentation
12:30 pm	Dr. Alexandru Florea and Dr. Caroline McKenna	Annual Influenza Immunization Rates in Children 6 Months to 5 Years of Age
12:40 pm	Dr. Olaitan Awopetu, Dr. Zara Kiani, Dr. Nick Simon, Dr. Ashwini Venkata Swamy	Increasing Frequency of Residents Having Discussions with Patients About Sick Day Medication Management
12:50 pm	Dr. Jia BeBoer, Dr. Samantha Orr, Dr. Matthew Ryckman	Fibromyalgia Billing
1:00 pm	Dr. Austin Kemp and Dr. Joshua Reycraft	Screening for Abdominal Aortic Aneurysm: A Comparative Study of Point-of-Care Ultrasound by Resident Physicians Versus Formal Radiologic Evaluation
1:10 pm	Dr. Elisabeta Moglan	Decreasing Metered Dose Inhaler Use at Southwest Middlesex Health Care Centre
1:20 pm	Dr. Emily St. Pierre and Dr. Shruti Sinha	Improving Resident's Comfort with Menopause Management



## Room 4006: Session F

Time	Presenter	Presentation
12:30 pm	Dr. Manveer Khural	MSK Acute Injury Clinic patient education handouts
12:40 pm	Dr. Connor Ostoich	Mitigating the Impact of Concussions: Current Evidence for Acute Supplementation to Aid in Recovery
12:50 pm	Dr. Lorenzo Saad	Enhancing the MSK Ultrasound Cadaver Workshop with Laminated Educational One-Pagers

## Session D

Dr. Madiha Akbar, Dr. Anum Khalid, Dr. Parastoo Pournaghshaband – BPMC

### **Enhancing Hypertension Management in Diabetic Patients Aged 45-65: A Quality Improvement Initiative at Byron Family Medical Centre**

Faculty Lead: Dr. Sonny Cejic

Project Type: Quality Improvement

Hypertension is a prevalent condition that often coexists with diabetes, significantly increasing cardiovascular risk. In Canada, while there are established flow sheets for monitoring diabetes, a formal equivalent for hypertension is lacking. This quality improvement project aims to improve hypertension control among men and women aged 45-65 with pre-existing diabetes. Our initiative integrates hypertension management into the existing diabetes flow sheets, enhancing systematic patient assessment and follow-up. We collected baseline data on the diabetic population and individuals with uncontrolled hypertension to inform our interventions. Modifications to the diabetes flow sheets now include a protocol for closer monitoring, specifically mandating a follow-up within one month for patients presenting blood pressure levels above 130/80 mmHg. This approach is supported by reminders for healthcare staff and educational handouts for patients, emphasizing the importance of hypertension control and patient self-management. By aligning hypertension management with diabetes care, we anticipate improved health outcomes and enhanced efficient in-patient monitoring. The project's success will be evaluated through continuous observation and comparison of hypertension control rates before and after the implementation of the revised flow sheets. This initiative represents a significant step toward standardized, comprehensive care for patients with comorbid diabetes and hypertension, addressing a critical gap in the current healthcare system. At the end, we observed a 12% improvement in blood pressure control among the target patient population.

Dr. Carol He and Dr. Ruth Neumann – BPMC

### **Improving frequency of photo documentation in assessment of suspected malignant skin lesions**

Faculty Lead: Dr. Sonny Cejic

Project Type: Quality Improvement

Skin cancer accounts for approximately one third of all cancers diagnosed per year, making it the most common malignancy diagnosed in white populations. Appropriate detection, surveillance, and investigation of skin lesions in the primary care setting is crucial, as this is often the point of first presentation. The purpose of this quality improvement project was to increase the percentage of patient encounters that include photo documentation when assessing a suspected malignant lesion at the Byron Family Medicine Centre. Encounter notes that included the key words of basal cell carcinoma, squamous cell carcinoma, BCC, SCC, or melanoma documenting initial assessments of suspected malignant lesions were assessed for whether they included an uploaded photo of the suspicious skin lesion. Following quality improvement intervention PDSA cycle 1, involving an educational presentation on how to use the PS Suites photo tool, the total percentage of assessments with photo documentation increased from 38% to 65% within a 6-month period. Process measure demonstrated that 100% of all residents during assessment period successfully uploaded at least one photo following intervention. Balancing measure demonstrated modest increase in biopsies taken for benign lesions, from 24% to 33%. Following quality improvement PDSA cycle 2, involving posting of reminders to include photo documentation to skin assessments to resident computers, the percentage of assessments of photo documentation increased from 65% to 77%. Process measure demonstrated that 100% of participating residents have noted the posted reminder. Unfortunately, the balancing measure of percentage of benign lesions biopsied could not be calculated, as multiple biopsies from this testing period have not yet resulted due to time constraints. Overall, the interventions implemented as part of this project has successfully increased the percentage of patient encounters that include photo documentation when assessing suspected malignant lesions, with potential modest increase in benign lesions biopsied.

Dr. Philippe Kramer – BFMCI

**An Overview of the Use of Point-of-Care Ultrasound (POCUS) in Family Medicine: Prevalence, Outcomes, Implementation into Practice, and Barriers to Adoption**

Faculty Lead: Dr. George Kim

Project Type: Literature Review

**BACKGROUND:** Point-of-care ultrasound (POCUS) in family medicine is a growing discipline, and has garnered significant interest over the past several years. It has been shown to improve clinical decision-making and may improve patient outcomes. Adoption, however, is heterogeneous across practices and institutions, and there are hurdles to making POCUS mainstream in primary care. **OBJECTIVE:** This literature review focuses on the prevalence of POCUS use in primary care, impact on clinical outcomes, workflow integration, and barriers or facilitators to implementation in family practice. **METHODS:** Using detailed search terms, relevant articles published between 2016 and 2023 were used in this review, emphasizing systematic reviews and primary care-focused studies from Canada and the United States. **RESULTS:** POCUS adoption in family medicine residency programs has grown significantly from 2% in 2014 to over 50% in the last few years. There is currently a great deal of enthusiasm, with 94.3% of Canadian residents expressing interest, however formal training is limited. Adoption in practice is more limited. There is little hard evidence suggesting POCUS improves patient outcomes such as morbidity and mortality. However, POCUS does improve diagnostic accuracy (100% for abdominal aorta scans, 98% for obstetric scans), leading to faster clinical decision making and potentially reduced costs. There are false positives (ranging from 0.7 % to 33%) as well as false negatives (0.02% to 8.7%) that can arise from POCUS use, but in general, they can be remarkably accurate when applied in the correct settings. Some extrapolated evidence shows that focused POCUS scans in general practice can be safer and more useful than detailed and screening POCUS scans. Recently, handheld devices have become mainstream and integrated into daily practice. These devices have evolved and become exceptional over just a few years, highlighting interest from industry players. This has facilitated integration into patient encounters. It can, however, impact workflow by adding 5-10 minutes per consultation. Barriers to widespread implementation include insufficient training, equipment access, or unclear reimbursement mechanisms. **CONCLUSION:** POCUS is an exceptional tool that clinicians can use to make diagnoses and facilitate management, and it has been shown to reduce the need for imaging referrals. It may also reduce costs and improve patient satisfaction. It is unclear, however, whether POCUS improves morbidity and mortality-related outcomes. While POCUS does offer potential significant diagnostic benefits, there are many barriers that must be addressed to integrate it into routine family practice. Future research should focus on whether POCUS can reliably improve patient-related outcomes. Furthermore, strategies to improve implementation into primary care by addressing training and financial sustainability should be prioritized.

Dr. Rabiya Niaz, Dr. Ifedolapo Okunowo, Dr. Mehwish Saif, Dr. Ismat Tahira – BFMC

**Reducing over-utilization of Complete Blood Count (CBC) in an academic Family Medicine Practice**

Faculty Lead: Dr. Sonny Cejic

Project Type: Quality Improvement

The Canadian public healthcare system is experiencing continual budget constraints, making it more important than ever to control costs while delivering the best possible patient care. Over-utilization of laboratory testing represents an economic burden while being a risk to patients in terms of unnecessary discomfort and loss of blood. Family physicians represent the largest utilizers of laboratory testing. In stewardship of resources, Choosing Wisely Canada advises against using annual screening blood tests in asymptomatic and low-risk patients. Recognizing the room for improvement in reducing the overutilization of CBC at our academic center, this quality improvement project aimed to achieve that goal. A root cause analysis completed in the form of a fishbone diagram generated ideas for change. The interventions utilized included reminders to write indications for CBC in progress notes and physician education. The result of our QI project shows that their interventions effectively reduced the overutilization of CBC by 32%. The largest impact on our outcome measure came from reminding the team members to consider the indication for CBC when ordering it. The barriers faced were decreased uptake by health providers other than residents. Almost 50% of the physicians ordering tests were part of this project. Therefore, there may be a deliberate bias to lessen overutilization, which could have affected the outcome. Our project showed that such interventions can be implemented sustainably and efficiently. This highlights the importance of physician education in terms of cost-effective clinical practice, preferably to be included in resident curriculum, aiming to reduce overall costs while providing high-quality patient care.

Dr. Simon Bahru – BFMC

**Improving the Management of Type 2 Diabetes Mellitus in Primary Care Through a Multidisciplinary Approach: A Retrospective Study of the Mini Diabetes Clinic at Byron Family Medical Centre (BFMC)**

Faculty Lead: Dr. Tania Rubaiyyat

Project Type: Research

**BACKGROUND:** Type 2 diabetes mellitus (T2DM) presents a growing challenge in Canadian healthcare due to its prevalence and potential complications. Primary care settings are increasingly adopting multidisciplinary models to enhance diabetes management. **OBJECTIVE:** This study evaluated the impact of a multidisciplinary Mini Diabetes Clinic within a family medicine setting on key diabetes outcomes, including glycemic control, weight, retinopathy screening adherence, and medication optimization. **METHODS:** A retrospective cohort study was conducted involving 57 patients with T2DM who attended the Mini Diabetes Clinic at Byron Family Medical Centre between November 2021 and October 2023. Clinical data were collected at baseline and at a follow-up visit at least six months later. Paired t-tests analyzed changes in hemoglobin A1c (HbA1c) and weight, while McNemar's test assessed changes in retinopathy screening and medication optimization. **RESULTS:** Participants showed a statistically significant reduction in weight (mean difference = 3.88 kg,  $p < .001$ ) and a non-significant trend toward improved HbA1c (mean reduction = 0.28%,  $p = .085$ ). Medication optimization significantly improved from baseline ( $\chi^2(1, N = 57) = 16.2, p < .001$ ), and retinopathy screening adherence also significantly increased ( $\chi^2(1, N = 57) = 12.25, p < .001$ ). **CONCLUSION:** The implementation of a multidisciplinary diabetes clinic in a primary care setting was associated with improvements in clinical outcomes and adherence to guideline-based care. These findings support the integration of team-based care models to optimize chronic disease management for patients with T2DM.

Dr. Ryan DeVrieze – BFMC

### **Methadone Use in LTC: Physician Attitudes and Opinions**

Faculty Lead: Dr. Tania Rubaiyyat

Project Type: Research

**OBJECTIVE:** To explore physician attitudes regarding utilization of methadone in long term care (LTC) patients with chronic pain. **DATA SOURCES:** PubMed; Google Scholar; local physicians. **INTRODUCTION:** Physician attitudes towards utilizing methadone in chronic pain patients particularly amongst the elderly and long-term care (LTC) populations, are influenced by multiple clinical and experiential factors. A clear barrier is the general lack of familiarity among healthcare providers with methadone's pharmacologic profile- including cardiovascular safety, drug-drug interactions, and complex pharmacokinetics, all of which may lead to adverse effects. Our study aims to identify perceived barriers and thoughts regarding methadone as a primary analgesic in our local London, Ontario LTC physician population. **METHODS:** A qualitative descriptive study was conducted to explore physician attitudes regarding methadone use in the LTC, elderly population for management of chronic pain. Inclusion criteria were physicians providing medical care to LTC patients in Ontario. Exclusion criteria were physicians or persons with no involvement in providing medical care to LTC patients in Ontario. A total of 4 participants (n = 4) were interviewed via video conference each with 8 – 19 year of LTC experience. Interviews were transcribed, analyzed, and common themes were identified. **RESULTS:** 4 local physicians who had practiced in LTC for 8-19 years were interviewed regarding their experience and attitudes surrounding methadone use for chronic pain management in LTC patients. Interviews were analyzed and 3 themes were highlighted. 1. Limited Use and Experience with Methadone 2. Acknowledgement of Training Gaps 3. Challenges and complexities of chronic pain management

## Session E

Dr. Alexandru Florea and Dr. Caroline McKenna – Mt. Brydges / Strathroy

### **Annual Influenza Immunization Rates in Children 6 Months to 5 Years of Age**

Faculty Lead: Dr. Jay Taylor

Project Type: Quality Improvement

Annual influenza immunization efforts are a part of routine preventative care in family practice, reducing mortality and morbidity. In particular, children aged 6 months to 5 years old are vulnerable to complications and hospitalizations from influenza. However, immunization rates among children 6 months to 5 years of age remain low both on a population level and within the centres we are practicing in. Improving vaccination in this population not only protects individual and community health but also reduces school absenteeism and parental work disruption. This quality improvement initiative aimed to increase pediatric influenza vaccination rates across two family medicine teaching sites. In PDSA Cycle 1, a message was sent to residents and staff via our EMR at the beginning of flu season, aiming to boost discussions during well-child visits. Using EMR queries, we established a baseline vaccination rate of 12.13%. PDSA Cycle 2 involved selecting five patients per physician from the target age group and sending personalized emails notifying parents of an influenza dose reserved for their child, prompting them to book a visit. Unfortunately, our vaccination rates were similar despite these initiatives, with a rate of 11.36% after PDSA 1 and 12.50% after PDSA 2. Contributing barriers included parental vaccine hesitancy, flu-specific misconceptions, time constraints during appointments, inconsistent physician prompting, and limited vaccine availability. EMR documentation variability and missed data from external providers may also have affected accuracy. Future improvements may include embedding flu vaccine prompts in the Rourke template, expanding walk-in availability, and improving EMR documentation processes.

Dr. Olaitan Awopetu, Dr. Zara Kiani, Dr. Nick Simon, Dr. Aswhini Venkata Swamy – Strathroy

**Increasing Frequency of Residents Having Discussions with Patients About Sick Day Medication Management**

Faculty Lead: Dr. Philip Vandewalle

Project Type: Quality Improvement

This Quality Improvement (QI) project aimed to enhance the frequency of resident physicians discussing sick day medication management with patients at West Middlesex Health Centre (Strathroy) and Southwest Middlesex Health Centre (Mt. Brydges). Baseline data indicated that only ~15% of residents consistently addressed this issue. Two Plan-Do-Study-Act (PDSA) cycles were implemented: (1) a didactic teaching session, and (2) provision of a visual aid to reinforce counselling. Results demonstrated a significant improvement, with the proportion of residents engaging in these discussions, demonstrated by Likert scale average increase from a baseline 2.57, to 4.25 after both interventions. Confidence in identifying sick day medications and assessing patient understanding also improved. These were represented with Likert scale average increases from 3.67 to 4.88 for resident confidence for sick day medication identification, and 2.48 to 4.25 for resident confidence that patients understood the discussion. Barriers identified included time constraints, incomplete knowledge and forgetfulness. Findings suggest that structured education combined with accessible clinical tools effectively enhance resident engagement in sick day medication discussions, potentially reducing hospital admissions and adverse health outcomes. Further integration of standardized protocols and interdisciplinary collaboration is recommended for sustainability.

Dr. Jia BeBoer, Dr. Samantha Orr, Dr. Matthew Ryckman – Mt. Brydges / Strathroy

**Fibromyalgia Billing**

Faculty Lead: Dr. John Marcou

Project Type: Quality Improvement

Fibromyalgia is a complex disease afflicting 3 % of our population that requires significant resources within family medicine. The Ontario ministry of health made a specific fibromyalgia billing code (K037) that is higher paying and out of basket in 2010 to better compensate family physicians. K037 can be billed for patients with fibromyalgia being seen for greater than 20 minutes for any medical concern. Our study aims at improving the rate at which this code is billed for patients with the diagnosis of fibromyalgia at the West Middlesex Health Clinic. To gather our patient population, we used key search terms of “fibromyalgia” “fibro” “FM” “K037” querying the clinics electronic medical record (EMR) finding 58 patients. PDSA 1 was a teaching session on fibromyalgia and the schedule of benefits wording of K037. PDSA 2 was manually pinning the diagnosis of fibromyalgia at the top of patient’s medical problem list within their EMR. We used manual chart review of billing codes for all visits of our 58 patients. In the control (Jun 14 2022 - Jun 13 2024) K037 was billed 15.63% of the time. PDSA 1 (Jun 14 2024 – Dec 2 2024) K037 was billed 33.13%. PDSA 2 (Dec 3 2024 – Apr 21 2025) K037 was billed 31.57%. Combining PDSA1+2, K037 was billed 32.39% of the time. We showed a 16.76% increase in the rate of K037 billing during our study period compared to control. An increase in K037 billing leads to increased compensation.



Dr. Austin Kemp and Joshua Reycraft – Mt. Brydges

**Screening for Abdominal Aortic Aneurysm: A Comparative Study of Point-of-Care Ultrasound by Resident Physicians Versus Formal Radiologic Evaluation**

Faculty Lead: Dr. Kyle Carter

Project Type: Research

Abdominal aortic aneurysm (AAA) results from the pathological dilation of the abdominal aorta to  $\geq 3$  cm in diameter. The major risk of AAA is rupture, which is a catastrophic event with exceedingly high mortality rates. Screening for AAA in males aged 65-80 by ultrasonography (US) is recommended by the Canadian Society of Vascular Surgery (CSVS) and effectively reduces mortality from AAA. Family physicians are in a unique position to improve access to AAA screening by utilizing point of care ultrasound (PoCUS) in the primary care setting, however, no studies to date have assessed the performance of primary care providers performed in-office PoCUS versus gold standard formal US. In the present study, males between 65 and 80 years old were recruited for screening as stated by CSVS guidelines. We also recruited family medicine residents, then provided a brief didactic and hands-on PoCUS training session. We then conducted comparative and agreement analysis to assess accuracy of family medicine resident performed PoCUS compared to formal US. We found that resident PoCUS scans systematically underestimate aortic diameters especially when looking at the maximum and proximal measurements, and results demonstrated a statistically significant difference. These findings suggest resident PoCUS scans are not equivalent to formal US scans for detecting AAAs, however, we postulate that future studies could benefit by increasing sample size, which would likely suppress systemic underestimation bias, and allow specific cutoff creation of in-office AAA screening with PoCUS that would necessitate further investigation.

Dr. Elisabeta Moglan – Mt. Brydges

**Decreasing Metered Dose Inhaler Use at Southwest Middlesex Health Care Centre**

Faculty Lead: Dr. Jay Taylor

Project Type: Quality Improvement

The number of Canadians affected by climate change continues to rise, with air pollution accelerative death in 20 000 people in 2018. Healthcare contributes at least 5% of total carbon emissions in Canada, of which medications, specifically Metered Dose Inhalers (MDIs), are a known contributor. Ironically, MDI use is predicted to rise, with increased incidence of respiratory illness secondary to air quality. This quality improvement (QI) project aims to reduce the prescribing of Salbutamol MDIs by increasing resident awareness and encouraging patient-centered discussions on environmentally friendly inhalers, specifically dry powder inhalers (DPI). Two PDSA cycles were performed, involving a teaching session for residents on climate-conscious prescribing, and the placement of posters in clinic rooms. Surveys administered to 13 residents revealed significant increase in knowledge and confidence to engage in environmentally conscious prescribing. Patient feedback was also positive, with better understanding of their inhaler options using visual aids. Although there was no decrease in MDI prescriptions, there was a substantial increase in Symbicort prescriptions (DPI) which may represent treatment initiation with a DPI rather than switching from an MDI to a DPI. The benefits of incorporating planetary health discussions into clinical care, while time consuming, were emphasized. Regardless of objective MDI prescriptions, patient satisfaction and confidence with their inhalers improves symptom control, decreases frequency of reliever medication (MDIs) use and overall decreases healthcare emissions. The use of posters or allied health involvement can also minimize the time burden and increase patient education of environmentally friendly inhalers.

Dr. Shruti Sinha and Emily St. Pierre – Mt. Brydges

**Improving Resident's Comfort with Menopause Management**

Faculty Lead: Dr. Theodosios Karaouzas

Project Type: Quality Improvement

An important first step in combating the silence and stigma of menopause, is through physician comfort in addressing menopause with their patients and treating menopausal symptoms. A recent report by the Menopause Foundation of Canada found that of women who sought advice about menopause from their family physician, 72% felt the advice given from their family physician was either not helpful or only somewhat helpful. These findings are surprising, yet they reflect our lived experience as Canadian Family Medicine Resident physicians. This, along with our own discomfort served as inspiration for our QI project. Through resident led didactic and case-based teaching sessions during our academic half, we aimed to increase resident comfort in menopause counselling and initiating menopause hormone replacement therapy (MHT) by 50%. Residents surveyed included first and second year residents at the Regional West Teaching site at Western University. We measured resident comfort through anonymous surveys using a Likert scale, surveys were distributed pre-and-post-teaching for each teaching session. Baseline data collected from our co-resident physicians indicated that only 40% of residents were comfortable counselling patients about menopause, and only 30% were comfortable initiating MHT. Our first PDSA cycle comprised a didactic lecture in August 2024. This session was effective in improving comfort with menopause counselling to 90% of residents and comfort with MHT initiation to 70%. A second PDSA cycle, completed in January 2025, comprised an interactive case-based discussion. At the conclusion of this cycle, all residents surveyed felt comfortable counselling patients regarding menopause and initiating menopausal hormone therapy.

## Session F

Dr. Manveer Khural – PGY3 Sports Medicine

**MSK Acute Injury Clinic patient education handouts**

Faculty Lead: Dr. Lydia Schultz

Project Type: Quality Improvement

The aim of this Quality Improvement project is to create handouts to improve patient education on the diagnosis received in the Acute Injury Clinic at the Fowler Kennedy Sports Medicine clinic. The one-to-two-page handout will contain information on the diagnosis, treatment options, including rehab exercises, prognosis, and return to play timeline, as well as when to seek follow-up care if the injury is not improving as expected. Evidence-based resources such as Ortho Bullets, Up to Date, and Sports Medicine Journals will be used to gather information on selected sports injury topics that are most commonly seen in the Acute Injury Clinic. Overall, these handouts have the potential to improve patient outcomes through better engagement and compliance in the rehab process and better understanding of the expected prognosis and timeline for return to sport.

Dr. Connor Ostoich – PGY3 Sports Medicine

**Mitigating the Impact of Concussions: Current Evidence for Acute Supplementation to Aid in Recovery**

Faculty Lead: Dr. Tarek El-Chabib

Project Type: Scoping Review

**BACKGROUND:** Traumatic brain injuries (TBIs) are a significant public health concern and a major source of disability and death worldwide. Mild TBIs, also known as concussions, account for the vast majority of TBI's (80–95%). A large percentage of concussions occur during sports or physical activities; annual incidence of sport-related concussions in Canada is 1 in 450 people  $\geq 12$ yr. Concussions involve a complex neurometabolic cascade that impairs neuronal membranes and transmitter function, causing neurotoxicity. Certain compounds have mechanisms of action shown to interfere with and potentially attenuate some of these neuropathological processes. **QUESTION:** Does current evidence suggest any supplement should be recommended acutely post-concussion to aid in recovery? **METHODS:** A comprehensive search was conducted in Ovid Medline, Embase, Cochrane, Sportdiscus, Scopus, ScienceDirect, Embase, Cochrane, and Pubmed. Key search terms included “supplement\*” or “nutraceutical\*” and “concussion\*” or “mild traumatic brain injury\*”. Articles were included if the supplement was started within 1wk of head injury and experimental, observational, and theoretical outcomes were considered. Exclusion criteria included subjects  $\leq 12$ yr old, prior head trauma, non-English articles, supplement use prior to head injury, and supplement initiation after 1wk post-concussion. Articles (26,692) were screened on Covidence by reviewing titles and abstracts, followed by full-text review to confirm eligibility. Two reviewers independently screened articles and extracted data. Results were synthesized by supplement. **FINDINGS:** Seventeen studies met the criteria. Both human and animal studies were represented. Omega-3 fatty acids, followed by N-acetylcysteine and curcumin, demonstrated the most consistent evidence for neuroprotective effects. Melatonin, creatine, and branched chain amino acids were studied less frequently, but provided favourable findings in clinically relevant studies. Remaining supplements demonstrated biologically plausible mechanisms, but limited direct clinical evidence. **CONCLUSION:** Current evidence does not yet support a formal recommendation for any supplement to be routinely prescribed acutely post-concussion. Several compounds show promising early evidence when initiated within 7days of injury. Clinicians may cautiously consider these supplements on a case-by-case basis in patients with no contraindications and interest in adjunctive nutritional support.

Dr. Lorenzo Saad – PGY3 Sports Medicine

**Enhancing the MSK Ultrasound Cadaver Workshop with Laminated Educational One-Pagers**

Faculty Lead: Dr. Tarek El-Chabib

Project Type: Resident Education

Ultrasound-guided musculoskeletal (MSK) injections are an increasingly essential skill in sports and exercise medicine, offering improved accuracy, safety, and patient outcomes compared to landmark-guided techniques. Despite these benefits, many trainees face limited opportunities to build competency in ultrasound-guided procedures during their medical education. At the start of the Fowler Kennedy Sport Medicine Fellowship, a cadaver-based MSK ultrasound workshop offers a hands-on setting to develop foundational procedural skills, including probe handling, needle visualization, and interpretation of sonoanatomy. This educational project aims to enhance the learning experience of this workshop by developing a series of high-yield, user-friendly one-page reference guides. Each laminated one-pager includes: (1) clear indications for the procedure, (2) surface anatomical and ultrasound landmarks, (3) step-by-step technique for needle approach and target visualization, (4) clinical tips, and (5) a summary of procedural risks to support patient counseling. Ultrasound images have been generated by the author to provide real examples of sonoanatomy and procedural target views. By equipping trainees with accessible, structured visual references during the cadaver lab, this project is designed to optimize hands-on practice, reinforce key concepts, and serve as a durable clinical tool beyond the workshop. It also aligns with broader educational goals of promoting procedural competence and confidence in ultrasound-guided MSK interventions.

