

Resident Project Day

Abstract Collection

Department of Family Medicine

June 12th, 2024



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. Support public recognition of resident projects.
4. Assess resident projects through feedback evaluations.
5. Participate in discussions about resident projects.

CFPC (Mainpro+ Certification)

This one-credit-per-hour Group Learning program 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+ credits. Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

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 12th, 2024

9:30 a.m. – 3:30 p.m.

Western Center for Public Health and Family Medicine (WCPHFM)

9:00 a.m. – 9:30 a.m.	Registration
9:30 a.m. – 10:00 a.m.	<p>Opening Remarks</p> <p>Dr. Daniel Grushka, Postgraduate Program Director</p> <p>Dr. Scott McKay, Chair</p> <p>Dr. Maria Matthews, Centre for Studies in Family Medicine</p>
10:00 a.m. – 11:00 a.m.	<p>Concurrent lightning oral presentations</p> <p>(Session A in Room 1120, Session B in Room 1150)</p>
11:00 a.m. – 11:10 a.m.	Break
11:10 a.m. – 12:00 p.m.	<p>Concurrent lightning oral presentations</p> <p>(Session D in Room 1120, Session D in Room 1150)</p>
12:00 p.m. – 1:00 p.m.	Lunch
1:00 p.m. – 2:00 p.m.	<p>Concurrent lightning oral presentations</p> <p>(Session E in Room 1120, Session F in Room 1150)</p>
2:00 p.m. – 2:10 p.m.	Break
2:10 p.m. – 3:10 p.m.	<p>Concurrent lightning oral presentations</p> <p>(Session G in Room 1120, Session H in Room 1150)</p>
3:10 p.m. – 3:30 p.m.	Closing Remarks

Lightning Oral Presentations – Concurrent Rooms 1120 and 1150

Room 1120: Session A

Time	Presenter	Presentation
10:00 am	Dr. Tul-Zahra Rida	Survey Study Assessing Emergency Medicine Residents' Workload While Inserting Chest Tubes in the Emergency Department
10:10 am	Dr. Jordon Ho	Generalizability of changes to CCFP-EM CaRMs residency selection to other programs
10:20 am	Dr. Michael Mallender	Evaluating the clinical confidence and needs of CCFP-EM residents to practice musculoskeletal medicine in the emergency department
10:30 am	Dr. Bojana Radan	Sexual Assaults in the Emergency Department: A Retrospective Study on the Provision of Services, Injury Types, and Wait times at LHSC
10:40 am	Dr. Neil Sengupta	Canadian National Survey of CCFP(EM) Graduates on Point-of-care Ultrasound Training
10:50 am	Dr. Shifaz Veettil	Interventions to Improve Obstructive Sleep Apnea Screening at a Diabetes Clinic

Room 1150: Session B

Time	Presenter	Presentation
10:00 am	Dr. Tyler Blue, Dr. Jessica Chang, Dr. Russell MacMillan, and Dr. Zachary Weiss	Enhancing Cervical Cancer Screening in Immunocompromised Patients Through Various Patient Engagement Strategies: A Quality Improvement Study
10:10 am	Dr. Moaz Chohan, Dr. Jordan Dunlop, and Dr. Owen Montpellier	Promotion of early childhood literacy at the West Middlesex Health Centre, a quality improvement project
10:20 am	Dr. Melissa Chopcian, Dr. Matthew Gray, Dr. Faraz Hafezi, and Dr. Anthony Ziccarelli	Revamping Southwest Middlesex Health Centre Online: Enhancing Patient Outreach and Education with a Modernized Website and Social Media Presence
10:30 am	Dr. Ryan Biehn, Dr. Anwar Hooda, and Dr. Alanna Kozak	Reducing the number of missed appointments at SWMHC
10:40 am	Dr. Jackson Blonde, Dr. Meghan Chevalier, and Dr. Menakor Nenwon	Increasing Goals of Care Discussions in Patients Aged 65 and Older in a Primary Care Outpatient Setting: A Quality Improvement Initiative
10:50 am	Dr. Faith Moore	Quality Improvement Project to Increase Local Clinic Shingles Vaccination Rates

Session A

Dr. Tul-Zahra Rida – PGY3 Emergency Medicine

Survey Study Assessing Emergency Medicine Residents' Workload While Inserting Chest Tubes in the Emergency Department.

Faculty Lead: Dr. Sean Caine

Project Type: Survey Study

INTRODUCTION: In medical education literature, cognitive load theory suggests that stressing short-term memory with excessive stimuli (i.e. load) can hinder the transfer of knowledge into long-term memory. Our study primarily aims to determine the cognitive load experienced by Emergency Medicine residents while inserting a chest tube in the Emergency Department. The secondary objectives of this study are to: 1) trend how cognitive workload varies with residents' prior experience with chest tubes; 2) compare residents' perceptions of the quality of their learning experience with their cognitive workload; and 3) identify strategies to mitigate mental workload barriers.

METHODS: All Emergency Medicine residents (n=30) in the CCFP-EM and FRCP program at Western University will be invited to participate in a survey, which has been adapted from the NASA Task Load Index tool aimed at measuring inter-operator task-related workload. The survey consists of 13 multiple-choice and open text field questions that would take approximately 10 minutes to complete. Simple, descriptive statistics with sub-group analysis, and thematic analysis will be used to analyze the collected data.

RESULTS: Study results are still pending and will be disseminated once available.

CONCLUSION: Understanding the role and degree of mental workload while performing chest tubes in the Emergency Department and its impact on residents' perception of their learning experience will provide new insights on how to optimize procedural skills training for residents. Suggested strategies for mitigating mental workload barriers will be proposed for implementation in the Emergency Department using QI methodology to improve residents' chest tube insertion training.

Dr. Jordan Ho – PGY3 Emergency Medicine

Generalizability of changes to CCFP-EM CaRMs residency selection to other programs

Faculty Lead:

Project Type: Research

INTRODUCTION: A significant effort was undertaken from 2018 to 2022 to improve fairness and equity in the CCFP-EM CaRMS residency selection process due to perceived biases in the previous selection methods. This included the formation of a Fairness Committee, creating a multiple mini interview, anonymous file review, and both file and interview questions targeting a set of nine ideal qualities. The changes are currently being studied on success at improving diversity in the resident cohort. There has been some interest from other programs in understanding the methods used, and therefore this study was designed to understand whether our methods could be made of use to other programs as well. **METHODS:** A series of five modules were created using PowerPoint and video/audio recording sessions through the Schulich School of Medicine & Dentistry information technology services. These modules went through in detail the formation of the Fairness Committee, as well as the changes to file review, interviews, and scoring and ranking of candidates. Following this, a survey of 7 questions on a 5-point Likert scale was created, to be given to those who watch the modules. The survey is to delineate whether programs felt there was inequity in their current methods, whether they had thought of changes previously, and whether our modules helped them decide on a path forward. **RESULTS:** No results have been drawn yet, as the modules are as of yet still in creation. **CONCLUSIONS:** No specific conclusions can be drawn yet. This project will be continued in the future when results can then be drawn.

Dr. Michael Mallender – PGY3 Emergency Medicine

Evaluating the clinical confidence and needs of CCFP-EM residents to practice musculoskeletal medicine in the emergency department

Faculty Lead: Dr. Ryan Arbeau

Project Type: Research

INTRODUCTION: Competence in the assessment and management of musculoskeletal medicine presentations in the emergency department is a core competency of practice for CCFP-EM residents. American medical education research has shown medical trainees at all levels, including family and emergency medicine residents, report low levels of confidence in MSK medical skills. However, no data with respect to Canadian CCFP-EM residents currently exist in the literature. **METHODS:** A 20-item self-report survey was developed and later approved by the REB at Western University. The primary aim of the survey was to identify the clinical confidence and exposure of current CCFP-EM residents within MSK medicine; as well as the adequacy of the current MSK curriculums across Canada to help residents meet core competencies set out by the CFCP. **RESULTS:** At the start of their CCFP-EM year, respondents reported highest confidence (Likert rating ≥ 5) in clinical MSK medicine skills such as performing a comprehensive history (94%) and physical examination (72%), and lowest levels of confidence performing MSK-specific procedures including fracture reduction (55%) and joint aspiration (50%). Residents believed that dedicated MSK EM/Urgent care (94%) and fracture clinic (89%) experiences would be most beneficial to gain competence. **CONCLUSION:** This study identified that CCFP-EM residents report high levels of confidence in the clinical evaluation of patients with MSK presentations, but lower confidence in MSK relevant procedural skills. The results of this study could be utilized by current CCFP-EM programs to review their MSK curriculum and ensure that residents receive adequate procedural exposure during their EM year.

Dr. Bojana Radan – PGY3 Emergency Medicine

Sexual Assaults in the Emergency Department: A Retrospective Study on the Provision of Services, Injury Types, and Wait times at LHSC

Faculty Lead: Dr. Kristin Lythgoe

Project Type: Research

INTRODUCTION: One in three women globally are estimated to experience physical or sexual violence in their lifetime. One study in the US examined 35.8 million emergency room visits, and found that sexual assault (SA) increased by more than 1533.0% from 2006 to 2019. The objective of this study was to compare the services provided to patients presenting with SA in the emergency room at London Healthcare Sciences Centre between January 2020 and June 2023, against the New England Journal of Medicine sexual assault clinical guidelines. A secondary objective will be to examine SA wait times from ED triage to MD discharge. **METHODS:** A retrospective chart review was done examining patients presenting to LHSC emergency department with SA discharge diagnosis with the following ICD-10 codes (T76.2, T76.21XA, T76.21XD, T76.21XS, T74.21XA, T74.51XA, Y05, Z04.5, Z04.41 and Z04.71). A full list of the variables was obtained, analyzed, and compared to the gold standard of care variables indicated in the NEJM guideline. A confirmed referral and/or visit to the St. Joseph's Sexual Assault Clinic in London was considered as meeting the gold standard. **RESULTS:** Out of the sample size of (n=111) patients pulled with the predetermined ICD discharge codes, (n=94) met the SA discharge criteria. Of these, 78.7% (n=70) met the NEJM gold standard SA guideline, 9.6% (n=9) did not meet the standard of care, and 11.7% (n=11) left against medical advice without being seen. The average time for patients from ED registration to discharge was 276.19 min (4.36 hours). Services provided in the ED included (n=16) or 17% requiring mental health intervention, 9.6% (n=9) Xray services, 7.4% (n=7) CT abdomen/pelvis scans and 6.4% (n=6) CT head scans. Fifty-six (56.4%) (n=53) did not require any services outside of a referral to St. Joseph's. **CONCLUSION:** In summary, LHSC emergency department is meeting the standard of care for sexual assault services, but improvements can always be made. Moving forward, a streamlined triage process for SA, via a rapid assessment by a physician at triage, may be of benefit to patients to expedite the process of care and reduce wait times for sexual assault clinic referral.

Dr. Neil Sengupta – PGY3 Emergency Medicine

Canadian National Survey of CCFP(EM) Graduates on Point-of-care Ultrasound Training

Faculty Lead: Dr. Kevinjeet Mahngar

Project Type: Research

Point-of-care ultrasound (PoCUS) is the real time use of bedside ultrasound to answer a focused clinical question. It is a key skill for emergency physicians. While all CCFP(EM) training programs include PoCUS curriculum, there is variability in how content is delivered. We assessed the PoCUS competency of CCFP(EM) graduates upon graduation, and their preference for block-based vs bootcamp-based education. An online survey study was distributed to program directors of all English CCFP(EM) programs for subsequent distribution for graduates between 2019 and 2023. A reminder email was sent at 4 and 6 weeks after the initial email. All graduates between 2019 and 2023 who are currently practicing emergency medicine were eligible. A total of 56 responses were collected for a survey response rate of 11.6%. Prior to entering the CCFP(EM) year, most participants reported being somewhat or uncomfortable with the core PoCUS applications. By the end of the program, 52/56 (93%) participants felt somewhat or extremely comfortable with core applications, and 42/56 (75%) felt somewhat or extremely comfortable with vascular access. Participants felt less comfortable with biliary PoCUS and advanced cardiac PoCUS. Most participants preferred bootcamp education. CCFP(EM) graduates feel comfortable in the core PoCUS competencies and vascular access abilities following their training. Resident preference towards bootcamp education may be due to a perceived increase in volume of scans performed, or faster accumulation of skills. Future studies are required to elucidate optimal methods for advanced PoCUS education during the CCFP(EM) year and the efficacy of block vs bootcamp based education.

Dr. Shifaz Veettil – PGY3 Chronic Disease

Interventions to Improve Obstructive Sleep Apnea at a Diabetes Clinic

Faculty Lead: Dr. Sonja Reichert

Project Type: Quality Improvement

Obstructive sleep apnea (OSA) is associated with increased risk for cardiovascular morbidity and mortality. OSA is also an independent risk factor for type 2 diabetes mellitus (T2DM), with links to increased insulin resistance, beta cell dysfunction, and progression of microvascular complications. Use of continuous-positive airway pressure (CPAP), the gold-standard treatment in OSA, may help improve glycemic outcomes, though the extent is unclear. OSA screening is endorsed by international diabetes guidelines and the STOP-Bang questionnaire is a validated screening tool for this purpose. The prevalence of OSA in Canadians with T2DM may be between 65-75% based on data from countries with similar demographics. A chart review, with a sample size of 92 random patients to ensure a confidence interval of 95% and margin of error of 10%, was conducted at our diabetes clinic and found only 12% of patients had been documented to have OSA. A quality improvement project was implemented to improve the screening and subsequent diagnosis of OSA in patients with T2DM at our diabetes clinic. The first PDSA cycle involved a clinician education session but proved unsuccessful. We pivoted to posters and physical screening tools in clinic rooms for the second PDSA cycle based on feedback from weekly clinic meetings and anonymous questionnaires. Although clinician forgetfulness and cumbersome EMR were identified as barriers to screening, these interventions are relatively simple to reproduce. The link between these two co-morbid conditions is an emerging topic of interest. Our project will serve as a platform for further awareness, interventions, and research.

Session B

**Dr. Tyler Blue, Dr. Jessica Chang, Dr. Russell MacMillan, and Dr. Zachary Weiss – Strathroy
Enhancing Cervical Cancer Screening in Immunocompromised Patients Through Various Patient Engagement Strategies: A Quality Improvement Project**

Faculty Lead: Dr. Phil Vandewalle

Project Type: Quality Improvement

Cervical cancer screening guidelines recommend annual Pap smears for immunocompromised patients starting at age 21. Immunocompromised patients are defined as those who are on a biologic or immunosuppressive agent, have received solid organ transplant and on anti-rejection medications, have lupus and HIV/AIDS regardless of treatment medications, and those with congenital primary immunodeficiencies. As part of our QI project, we aimed to identify patients at risk for being immunocompromised, assess baseline frequency of annual Pap smears, and intervene with timely Pap smears. We identified 32 patients at risk across our four family physician supervisors at the Western Family Medicine Regional West Program Strathroy site. Only 8 of these 32 patients (25%) had received an annual Pap smear representing an opportunity for improvement. After identifying our patient population, we ran a total of three PDSA cycles focusing on different means of communication commonly available through the EMR Accuro and involved stakeholders from throughout the clinic to realise our change ideas. By the end of our project, we found a cumulative 17 patients out of 32 (53.1%) of eligible patients had completed their Pap screening at the recommended yearly interval. An additional 11 patients had their Pap scheduled at the time of data collection, corresponding to 87.5% of the at-risk patient population on track to completing yearly Paps, close to our initial goal of a 90% completion rate. Dissemination of our project strategy could contribute further to the overall efficacy of cervical cancer screening in Canada.

**Dr. Moaz Chohan, Dr. Jordan Dunlop, and Dr. Owen Montpellier – Strathroy
Promotion of early childhood literacy at the West Middlesex Health Centre, a quality improvement project**

Faculty Lead: Dr. Nuala Marshall

Project Type: Quality Improvement

This project aimed to improve promotion of early childhood literacy at the West Middlesex Health Centre by improving clinician confidence and knowledge, and increasing the percentage of visits in which this was discussed with families. Staff physicians, resident physicians, and nurse practitioners were recruited participate in two training sessions aimed at increasing knowledge and confidence in promoting early childhood literacy. In the first PDSA cycle, a training session was facilitated by the Canadian Children's Literacy Foundation. A survey 3-months following this training showed that 71% of participants reported improved confidence, however there was no change in average confidence scores for the group as a whole. The percentage of clinicians who discussed child literacy at every well-child visit also increased from 43% to 71%. A subsequent follow up survey found clinician confidence and knowledge scores had declined since the previous follow up survey, therefore a brief retraining session was selected as the intervention for the second PDSA cycle. Follow up after this session showed even further improvement in confidence scores, with 43% of clinicians reporting strong confidence and 100% report medium or strong confidence. Monitoring of balancing measures found that no increased time was required for regular implementation of high quality counselling on early child literacy at well-child visits. A key barrier to implementation of the recommendations was the perception that other health topics were of higher priority for discussion at well-child visits. Findings from this study demonstrate that brief educational sessions increased provider confidence and knowledge in discussing early child literacy with families.

**Dr. Melissa Chopcian, Dr. Matthew Gray, Dr. Faraz Hafezi, and Dr. Anthony Zicarelli – Mount Brydges
Revamping Southwest Middlesex Health Centre Online: Enhancing Patient Outreach and Education with a
Modernized Website and Social Media Presence**

Faculty Lead: Dr. Kyle Carter

Project Type: Quality Improvement

Medical websites and social media pages can be useful tools in providing patients with clinic information, facilitating care, and forwarding health promotion. However, the Southwest Middlesex Health Centre (SWMHC), a rural clinical teaching site for the Department of Family Medicine at Western University, faced challenges with an outdated online presence. The SWMHC website had not been updated in several years and contained obsolete information. Additionally, the clinic lacked active social media profiles for patient engagement. To address these issues and enhance the dissemination of clinic-specific information and educational materials, we undertook a project to update and promote the SWMHC website. We also created Facebook and Instagram profiles linking viewers to the clinic website. Throughout this process, we monitored the number of weekly views on our website and the growth of the clinic's social media following. Our efforts yielded positive results. Each PDSA cycle was associated with increased weekly website views compared to baseline. Creating social media platforms increased our weekly website views by 22% compared to baseline indicating increased patient engagement and access to updated information. Similarly, the clinic's social media profiles accumulated a modest following, considering the clinic's patient population. By updating the website and establishing a social media presence, SWMHC has improved its ability to connect with patients, share relevant information, and promote health awareness. Future endeavors may include engaging with patients to explore their preferences for content to post on our online platforms and utilizing these online mediums for future quality improvement initiatives.

Dr. Ryan Biehn, Dr. Anwar Hooda, and Dr. Alanna Kozak – Mount Brydges

Reducing the number of missed appointments at SWMHC

Faculty Lead: Dr. Jay Taylor

Project Type: Quality Improvement

Missed appointments are a common source of frustration for healthcare providers. Unfortunately, the impact of missed appointments goes deeper than frustration alone; it impacts healthcare access for our patients. Each missed appointment contributes to increased wait times and constitutes a waste of healthcare resources. Addressing this issue served as an inspiration for our QI project with an admittedly ambitious goal of reducing "no-show" appointments by 50%. Baseline data from the four clinical teams at the Southwest Middlesex Health Centre (SWMHC) revealed an average "no-show" rate of 5.3%. Our first PDSA cycle coincided with the implementation of Ocean - a secure digital messaging portal for patients - at our clinic site. Ocean allowed for digital appointment reminders to be sent to patients who were registered for the service. Unfortunately, at the conclusion of our first PDSA cycle, "no-show" rates were essentially unchanged at an average of 5.5% across the four clinical teams. We suspected this was likely due to low preliminary registration rates for Ocean across our patient population, thus limiting the impact of this intervention on our outcome measure. Our second PDSA cycle consisted of the implementation of a "no-show" fee for missed appointments without adequate notice, in addition to the previously implemented digital appointment reminders via Ocean. At the conclusion of this cycle, there was a notable improvement in "no-show" rates with an average of 2.9% across the four clinical teams, a reduction of 45% from baseline which was essentially our target.

Dr. Jackson Blonde, Dr. Meghan Chevalier, and Dr. Menakor Nenwon – Chatham

Increasing Goals of Care Discussions in Patients Aged 65 and Older in a Primary Care Outpatient Setting: A Quality Improvement Initiative

Faculty Lead: Dr. Lindsay Sutherland

Project Type: Quality Improvement

BACKGROUND: Goals of care (GOC) conversations should occur more frequently in the outpatient setting. This would help to avoid inappropriate patient care and unclear wishes in emergency situations. In the practices of our three supervisors at the Thamesview Family Health Team in Chatham, Ontario, 6.2% of patients aged 65 and older had a documented GOC discussion at baseline (based on our search criteria). Our aim was to increase this to 20% by March 2024. **DESIGN:** To achieve our objective, we implemented a quality improvement initiative using the PDSA approach. We created a built-in button in our electronic medical record interface (PSSuite) that, when clicked, generated a note in the patient's chart for physicians to add details about the patient's GOC. This provided a passive reminder to have GOC discussions and allowed a better way to track these discussions. In a subsequent PDSA cycle we added a section to the preventative care portion of the patient's chart that indicated when the last GOC discussion, if any, was had. **RESULTS:** Over the nine months of our QI initiative, the percentage of patients aged 65 and older who had a goals of care discussion increased to 10%. This reflected an average increase of 0.42% monthly compared to our baseline of 0.06% monthly. Our EMR button was clicked 31 times. Limitations of the project include time constraints within clinic visits to have GOC discussions, physician's perceptions that patients were uncomfortable having GOC discussions, and not including standardized details in the auto-generated note.

Dr. Faith Moore – Chatham

Quality Improvement Project to Increase Local Clinic Shingles Vaccination Rates

Faculty Lead: Dr. Sheri Roszell

Project Type: Quality Improvement

Shingles occurs as a reactivation of the varicella zoster virus and can lead to long term complications, and significant economic and health burden. Shingles vaccination is only publicly funded in Canada for those between the ages of 65-70. The goal of this QI project was to increase our local clinic vaccination rates, which started at only 33.4% for those who were eligible for government funded shingles vaccination. During our first PDSA cycle we implemented a reminder in the EMR to remind physicians which patient was eligible for government funded shingles vaccination. Unfortunately, at the end of our first PDSA cycle, which ran from July 1st, 2022 to September 30th, 2023, our clinic had 32.7% of patients eligible for Zostavax /Shingrex immunized, a decrease from our starting percentage. For the second PDSA cycle we decided to continue with the EMR reminders but also implement a patient centered change, placing pamphlets in the waiting room and posters in the patient washrooms. After the second PDSA cycle, which ran from October 1st, 2023 until January 1st, 2024, our clinic had 36.3% of patients eligible for Zostavax/Shingrex immunized. This was a significant increase which exceeded our goal of 0.8% rise over one year. We were happy with the effect of the patient centered interventions and the clinic has decided to continue with posters in the bathrooms and patient pamphlets in the waiting rooms. In hindsight, the location of the EMR reminder was not ideal, which likely contributed to it not improving patient vaccination rates.

Room 1120: Session C

Time	Presenter	Presentation
11:10 am	Dr. Fatima Afzal, Dr. Hayder Al-Tukmachi, Dr. Jala Rizq, and Dr. Summaiya Siddiqui	Optimizing strategies to initiate discussions around advanced care planning in patients over the age of 65 or with progressive chronic disease in a family medicine practice setting
11:20 am	Dr. Geoffrey Liang and Dr. Zora Upneja	Patient Education in the Modern Age
11:30 pm	Dr. Sasha Dowhayko	Family Medicine Infographic Update
11:40 am	Dr. Laura Couture, Dr. Hai Nguyen, Dr. Julia Petta, Dr. Alexandra Zygowska	Increasing STI Screening in Sexually Active Non-Pregnant Women Under Age 25
11:50 am	Dr. Jocelynn De Koning and Dr. Yazan Honjol	Increasing Initial Osteoporosis Screening with BMD at/after age 65 in a Primary Care Clinic

Room 1150: Session D

Time	Presenter	Presentation
11:10 am	Dr. Allegra Reeves	Improving Colon Cancer Screening by Increasing Fit Completion
11:20 am	Dr. Cassidy Colhoun, Dr. Omar Hajar, and Dr. Liam Portt	Enhancing Aspirin Uptake Among Eligible Pregnant Patients: A Quality Improvement Project in a Rural Family Medicine Clinic
11:30 am	Dr. Natan Veinberg	Virtual Reality for Improving Symptoms in a Multi-site Hospice Setting
11:40 am	Dr. Jonathan Freedman	Assessing confidence in managing musculoskeletal conditions in Canadian medical students and residents with an interest in sports and exercise medicine
11:50 am	Dr. Nivedh Patro	Learning MSK Clinical Pearls with the Family Medicine Study Guide App

Session C

Dr. Fatima Afzal, Dr. Hayder Al-Tukmachi, Dr. Jala Rizq, and Dr. Summaiya Siddiqui – Windsor
Optimizing strategies to initiate discussions around advanced care planning in patients over the age of 65 or with progressive chronic disease in a family medicine practice setting

Faculty Lead: Dr. Elvira Yakoub

Project Type: Quality Improvement

Discussions around advanced care planning can be uncomfortable and difficult to initiate in a busy family practice. This area of health care is often neglected until it is too late, leaving many substitute decision makers unsure of what their loved ones would have wanted. This not only induces stress and conflict, but it can perpetuate feelings of guilt among the impromptu decision makers. As such, a more proactive approach is warranted to help patients and their family doctors initiate these discussions early. The aim of this QI project is to implement strategies that would help patients to identify the need for advanced care planning discussions and serve as a reminder to their family doctors to document their preferences as part of their chart on a regular basis.

Dr. Geoffrey Liang and Dr. Zora Upneja – Windsor

Patient Education in the Modern Age

Faculty Lead: Dr. Globarevic

Project Type: Quality Improvement

With the Internet connecting the world at our fingertips, there is an abundance of information and the world of medicine is no different. Unfortunately, there is a lot of misinformation as well and although we cannot control what people consume, it is important to ensure there is good quality information available and the means to access it are made clear to our patients. Counseling and educating patients is a vital part of family practice and doing this in an online, everlasting format saves time, increases efficiency and patient satisfaction.

Dr. Sasha Dowhayko – Windsor

Family Medicine Infographic Update

Faculty Lead: Dr. Paul Ziter

Project Type: Quality Improvement

Type II diabetes is a complex metabolic disease associated with significantly increasing morbidity and mortality throughout the developed world. One of the most challenging barriers to controlling diabetes is the significant health literacy required to understand the illness, and the demand for regular follow-up and monitoring with primary care practitioners. A very effective, but often under-utilized method of improving health literacy is by providing patients with infographics. Through collaboration with the University of Windsor WESPARK program several educational pamphlets on diabetes were created for this project. This study recruited patients from a local Windsor family medicine practice, and baseline data was collected from 20 randomly to self-report their level of understanding of their diabetes; revealing that 14/20 of those patients self-reported “low” levels of understanding of their illness (quantified as a score of 3 or less on a scale of 0-10). Two PDSA cycles were then conducted where diabetic patients were initially asked to self-report their understanding of illness and then provided infographics to take home, and telephoned 1-week later to again self-report their understanding of illness. At the end of both PDSA cycles, there were 16 total patients recruited, with 4 patients self-reporting low at initial assessment, and at 1-week follow-up only 2/16 patients reported a low level of understanding of their diabetes. Overall, 12.5% of patients reported a low understanding of illness at 1-week follow up, which fell just short of the goal of less than 10% of patients reporting low levels of understanding.

Dr. Dr. Laura Couture, Dr. Hai Nguyen, Dr. Julia Petta, Dr. Alexandra Zygowska – Windsor
Increasing STI Screening in Sexually Active Non-Pregnant Women Under Age 25

Faculty Lead: Dr. Nicholas Paquette

Project Type: Quality Improvement

There is an increased prevalence of sexually transmitted diseases in Canadian young adults. According to the 2018 report of Canadians' Awareness, Knowledge and Attitudes Related to Sexually Transmitted and Blood-Borne Infections, 50% of Canadians had never received STI testing. Most recently, the Public Health Agency of Canada updated their guidelines, recommending annual screening for non-pregnant women 18-24. Our QI Project focused on implementing change methods and increasing screening rates of this population (deemed eligible patients) within our family medicine clinics. At baseline, 13% of eligible women in our cumulative clinics received chlamydia and gonorrhea screening. In our first PDSA cycle, educational posters recommending annual STI screening for females under the age of 25 were placed in our respective clinics & examination rooms. This resulted in 8.25% of eligible patients seen in clinic being screened. This was a 4.75% decrease from baseline. In our second PDSA cycle, we offered eligible patients opportunistic STI screening during clinic visits for any reason. This resulted in 40% of eligible patients seen in clinic being screened. This was a 27% increase from baseline and a 31.75% increase from PDSA 1. In conclusion, directly counselling patients about STI screening was a successful intervention and a more impactful change idea than educational posters.

Dr. Jocelynn De Koning and Dr. Yazan Honjol – Petrolia

Increasing Initial Osteoporosis Screening with BMD at/after age 65 in a Primary Care Clinic

Faculty Lead: Dr. John Butler

Project Type: Quality Improvement

Osteoporosis is a common diagnosis in primary care and results in increased morbidity and mortality in the elderly. Osteoporosis Canada released updated guidelines in 2023, recommending screening in all adults 75 years and older, or those younger with risk factors. This project was already started at this time, so data collection was for ages 65 years and older, based on the 2010 screening guidelines. The actual screening rates of individuals for osteoporosis were lower compared to other chronic disease and cancer prevention screening such as diabetes, dyslipidemia, colorectal and breast cancer in the primary care setting. A quality improvement project was conducted in hopes of increasing BMD screening in the primary care setting. We conducted two PDSA cycles to optimize and increase the rate of BMD referrals including physician education and posters in clinic rooms and patient waiting areas. We looked at our outcome measure (percentage of patients who have had their BMD screening completed), process measure (the percentage of physicians familiar with osteoporosis screening guidelines), and balance measure (overall physician satisfaction related to time spent counselling patients on osteoporosis screening) to estimate the effect of our implementations. Overall, we found a small increase in BMDs completed as a result of the implemented changes, although other confounding factors, such as the extended time between PDSA cycles, cyber-attack at Bluewater Health and computer documentation could have negatively impacted the overall results.

Session D

Dr. Allegra Reeves – Hanover

Improving Colon Cancer Screening by Increasing FIT completion

Faculty Lead: Dr. Tim Heerema

Project Type: Quality Improvement

Colorectal cancer is the third most common type of cancer in males and is the second most common type of cancer in women. The adenoma-carcinoma sequence is thought to be the most common pathogenesis of colorectal cancer and typically has a slow development rate of around 10 years, which provides opportunity for screening and diagnosis to reduce morbidity and mortality. In Canada, current primary care screening for colorectal cancer includes the use of a fecal immunochemical test (FIT), which detects blood in stool by using a specific antibody against human hemoglobin. The overall FIT compliance rate in Ontario is 64%. The current compliance rate in a split practice at the Hanover and District Residency Teaching Site is currently 41%. My goal is to double this to 62% FIT completion rate. After placing posters with colorectal cancer and FIT in clinic rooms for PDSA1 there was no improvement in FIT compliance rate. After calling individual patients overdue for FIT in PDSA2 the compliance rate in my sample of 51 individuals was 36.4%. The results of this project show that patients are unlikely to complete FIT testing after viewing FIT information on clinic posters, as well as after personal discussion about FIT testing. This is congruent with current literature suggesting multiple reasons for low FIT compliance rates, which is discussed in this project.

Dr. Cassidy Colhoun, Dr. Omar Hajar, Dr. Liam Portt – Hanover

Enhancing Aspirin Uptake Among Eligible Pregnant Patients: A Quality Improvement Project in a Rural Family Medicine Clinic

Faculty Lead: Dr. Courtney Mellish

Project Type: Quality Improvement

INTRODUCTION: Aspirin (ASA) prophylaxis during pregnancy has been shown to significantly reduce the risk of preeclampsia and its associated complications. However, the uptake of ASA among eligible pregnant patients remains suboptimal. This quality improvement (QI) project aims to increase the number of eligible pregnant patients receiving ASA at Hanover Medical Associates' Rural Family Medicine Clinic. **METHODS:** A multidisciplinary team comprising family physicians, nurses, and administrative staff collaborated to implement interventions aimed at improving ASA uptake. Baseline data were collected to assess current ASA prescribing practices and 2 Version date: 2015-05-08 identify barriers to uptake. Interventions included provider education on ASA guidelines, development of standardized protocols for ASA prescribing, and electronic medical record (EMR) prompts. **RESULTS:** Preliminary analysis revealed low ASA uptake rates among eligible pregnant patients. Following the implementation of interventions, there was a notable increase in ASA prescribing rates and provider adherence to ASA guidelines improved. **CONCLUSION:** This QI project demonstrates the effectiveness of multifaceted interventions in enhancing ASA uptake among eligible pregnant patients at Hanover Medical Associates' Rural Family Medicine Clinic. Continued monitoring and adaptation of interventions will be crucial for sustaining improvements and optimizing maternal and fetal health outcomes in this rural community.

Dr. Natan Veinberg – PGY3 Oncology

Virtual Reality for Improving Symptoms in a Multi-site Hospice Setting

Faculty Lead: Dr. Patricia Valcke

Project Type: Research

Virtual Reality (VR) provides users the ability to engage in a virtual world from the safety/comfort of their own home simply by wearing a headset and using two handheld controllers. Several researchers have previously shown that using VR engagement, patients living with life-limiting illness showed improvement in self-reported symptom scores. We are conducting our study at The Hospice of Windsor and Essex County, in affiliation with the Schulich School of Medicine & Dentistry at Western University to assess the efficacy of VR on improving ESAS symptoms for those admitted as residents to the hospice at both the Windsor and Erie Shores locations. Our target sample size is 20 patients. The primary outcome of this study is the change in ESAS scores for pain, shortness of breath, depression, anxiety, and well-being, directly before and after intervention. Though this study is ongoing, for most participants thus far, modest improvements in symptom scores have been seen directly following VR intervention. This research adds to the field of VR use and Palliative Care adjunctive therapies by having expansive inclusion criteria with patients that are bedbound and living with end-stage non-malignant illnesses, in addition to those with cancers. To our knowledge this is the first formal research study using VR in Hospice care conducted in Canada. This presentation will portray our preliminary data and discuss the next steps for this project as well as the opportunities for follow-up case-controlled trials.

Dr. Jonathan Freedman – PGY3 Sport Medicine

Assessing confidence in managing musculoskeletal conditions in Canadian medical students and residents with an interest in sports and exercise medicine

Faculty Lead: Dr. Graham Briscoe

Project Type: Quality Improvement

Despite musculoskeletal (MSK) complaints accounting for a large percentage of primary care and emergency department presentations, a small percentage of the medical school curriculum, and family medicine residency is dedicated towards MSK pathology. As a result, graduating students lack a sufficient understanding for managing these presentations in clinical practice and have reported low confidence in treating MSK conditions based on prior studies. Medical students and residents that have registered for a shoulder clinical pearls and examination seminar will complete a post-seminar survey to assess overall impact on their education. This project aims to assess confidence levels and understanding of MSK conditions following a dedicated seminar towards clinical pearls and MSK exam for the shoulder, a common presentation to primary care clinics. We hypothesize that students will have improved confidence in handling MSK complaints following this seminar.

Dr. Nivedh Patro – PGY3 Sports Medicine

Learning MSK Clinical Pearls with the Family Medicine Study Guide App

Faculty Lead: Dr. Graham Briscoe

Project Type: Learning Tool Development

Graduates of family medicine residency programs in Canada are required to successfully complete the Certification Examination in Family Medicine to practice with an independent license. Proficiency in diagnosing and managing musculoskeletal (MSK) conditions is an essential competency in family medicine that is tested on the examination. However, there has been wide variability reported in adequacy of MSK training in Canadian medical education resulting in varying degrees of comfort in managing these conditions. The purpose of the current project is to develop MSK-based cases with a focus on elbow pathology for the popular Western Family Medicine Study Guide App to help improve trainee familiarity and comfort in managing common MSK presentations in primary care, both for the benefit of exam performance and future practice.

Room 1120: Session E

Time	Presenter	Presentation
1:00 pm	Dr. Rizwan Kazi and Dr. Geoffrey Ching	Virtual care usage by patients of various socioeconomic groups in family medicine academic settings: A Retrospective Chart Review
1:10 pm	Dr. Adam Merlo	Are Statins Overprescribed in Canada? A Retrospective Comparison of Cardiovascular Risk Estimation and Statin Prescribing in Primary Care
1:20 pm	Dr. Sara Rathore and Dr. Rebecca Whitehead	An approach to adding “family” back into family medicine – an initiative to improve patient-centeredness by increasing family demographic documentation in the electronic medical records for children aged 0-2 years old at Byron Family Medical Centre
1:30 pm	Dr. Michelle D’Agnillo, Dr. Rita Gustainis, and Dr. AJ MacDonald	Improving Human Papillomavirus vaccination rates of young adult men in Byron Family Medical Centre
1:40 pm	Dr. Kris Murray and Dr. Lorenzo Saad	Improving education for residents on exercise prescription in patients with peripheral vascular disease
1:50 pm	Dr. Anish Tejura	A Review of the Management of RCC

Room 1150: Session F

Time	Presenter	Presentation
1:00 pm	Dr. Ravin Alaei, Dr. Preet Dhaliwal, Dr. Selam Ogbalidet, Dr. Sofia Stover, Dr. Christopher Tran	Assessing the degree of inhaled corticosteroid prescribing for reliever therapy in asthma in the primary care setting
1:10 pm	Dr. Adam Aue, Dr. Samuel Bloomfield, Dr. Delaney Cosma, Dr. Eve Deck, and Dr. Tharindu Fernando	Improving documentation of informed consent conversations during initiation of new medications
1:20 am	Dr. Sidra Malik	Prenatal Colostrum Collection and its Benefits for Infants of Gestational Diabetes Mothers
1:30 pm	Dr. Ekeleoseye Sarah Ebhomien, Dr. Patrick Gatutsi, and Dr. Aiman Hassan	Improving the immunizations rate at St. Joseph’s Family Medical Center
1:40 pm	Dr. Marisa Market	Resident Physicians’ Comfort with Female Sexual Dysfunction
1:50 pm	Dr. Dhruv Jasani, Dr. Ziad Sabaa-Ayoun, and Dr. Rory Vaughan	Increasing the documentation of medication side effect discussions at MCFMC

Session E

Dr. Rizwan Kazi and Dr. Geoffrey Ching – Byron Family Medical Centre

Virtual care usage by patients of various socioeconomic groups in family medicine academic settings: A Retrospective Chart Review

Faculty Lead: Dr. Sonny Cejic

Project Type: Research

OBJECTIVE: This retrospective chart review aimed to inform stakeholders on how utilization patterns of virtual care differ based on socioeconomic status.

DESIGN: Ecologic study

SETTING: Two full-service primary care centers in London, Ontario.

PARTICIPANTS: Individuals who participated in virtual care hosted by two primary care centers in London, Ontario between 1 October 2020 to 30 September 2021.

MAIN OUTCOME MEASURES: Proportion of virtual patient visits represented by each income quintile.

RESULTS: 21072 virtual visits were reported during the period between 1 October 2020 and 30 September 2021. The average age of virtual care users during this timeframe was 50 +/- 22 years of age, and female-identifying individuals were involved in 59% of all visits during the study period. The top two income quintiles represented 89% of virtual care use.

CONCLUSION: Overall, data suggested that patients in the highest income quintiles reliably used telemedicine services much more frequently than those in lower quintiles. While further research is needed, it is paramount that further adoption of telemedicine, especially video-based care, in primary care, does not neglect the most underprivileged members of our communities.

Dr. Adam Merlo – Byron Family Medical Centre

Are Statins Overprescribed in Canada? A Retrospective Comparison of Cardiovascular Risk Estimation and Statin Prescribing in Primary Care

Faculty Lead: Dr. Tania Rubaiyyat

Project Type: Research

OBJECTIVE: Statin prescribing for primary prevention remains a topic of debate, especially in individuals at a low to moderate risk of cardiovascular disease, in part due to limitations of risk estimation tools. This study aimed to determine if there is a difference in risk estimation between different risk calculators and describe the proportion of patients that may fall under a different risk category if an alternative calculator was utilized. **DESIGN:** Retrospective chart review. **SETTING:** London, Canada. **PARTICIPANTS:** 50 randomly selected adults, aged 40 and older, without a statin-indicated condition or prior cardiovascular event, who underwent a lipid assessment at a single family medicine centre between 2010 and 2023, were included. **MAIN OUTCOME MEASURES:** Baseline demographics and cardiovascular risk factors were extracted. Validated online calculation websites were utilized to re-estimate cardiovascular disease risk and compare with values documented in the patient chart. **RESULTS:** Out of 50 patients, 20% did not have a documented cardiovascular risk value at the time of lipid assessment. However, the mean difference in Framingham risk values from the electronic medical record and PEER Lipid online calculator was statistically significant (3.44%, 95% CI 0.11 to 6.76, $p < 0.05$). Additionally, 23 (46%) patients would have fallen into a different risk category as per Canadian clinical practice guidelines if the ASCVD calculator was utilized instead of Framingham for cardiovascular risk estimation. **CONCLUSIONS:** Cardiovascular risk percentages differ between those calculated using an electronic medical record tool versus online calculators. Depending on the tool used, a proportion of patients may fall into a different cardiovascular risk category resulting in different management decisions. Further research is required to inform consistency among point-of-care risk tools. With the emergence of novel risk calculators, updates in clinical practice guidelines should reflect their appropriate clinical applications. Statin prescribing should involve shared decision making after a comprehensive assessment of individual risk factors.

Dr. Sara Rathore and Dr. Rebecca Whitehead – Byron Family Medical Centre

An approach to adding “family” back into family medicine – an initiative to improve patient-centeredness by increasing demographic documentation in the electronic medical records for children aged 0 – 2 years old at Byron Family Medical Centre

Faculty Lead: Dr. Andrew Hemphill

Project Type: Quality Improvement

Family physicians are privileged to be in the unique position where there is not only continuity of care longitudinally, but it extends laterally to include entire family units. This shapes a special patient-physician relationship rooted in trust, communication and familiarity. With this in mind, well-documented demographic details enables healthcare providers to demonstrate familiarity, starting off any encounter on the right foot and goes a long way towards building rapport. This is particularly important in learner-based settings where patients tend to see many different rotating resident physicians and, in some instances, have difficulty forming these relationships. This is the main driver of this QI project, investigating an approach to improve patient-centeredness by increasing demographic documentation in electronic medical records. Our aim specifically was to increase demographic data recorded in electronic health records of patients ages 0 - 2 years old rostered to the Commissioners West FHO (BFMC) from an initial 2.15% to 50% by October 23rd 2023. Several strategies were employed including use of reminder stickers, questionnaires and screen prompts encouraging families of this. Upon implementing these, there was a notable increase in the percentage of EMRs of our study population that had complete demographic data, increasing from baseline of 2.15% to ultimately 69%, with no influenced balance measures. However, there were not sufficient data points to draw conclusions at this stage, warranting further investigation. Despite this, the project has been encouraging thus far with positive feedback from both families and healthcare providers with potential for future implementations and fundamental change.

Dr. Michele D’Agnillo, Dr. Rita Gustainis, and Dr. AJ MacDonald – Byron Family Medical Centre

Improving Human Papillomavirus vaccination rates of young adult men in Byron Family Medical Centre

Faculty Lead: Dr. Sonny Cejic

Project Type: Quality Improvement

Human Papillomavirus (HPV) is a very common sexually transmitted infection in Canada and elsewhere. Effective immunizations are currently available through provincial programs. These were initially aimed only at females, such that men currently aged 20 and older would not have been immunized through provincial school-based programs. This project summarizes a quality improvement project aimed at increasing the rate of HP immunization among male patients aged 20-30 in an Ontario FHO. To achieve this, Byron Family Medical Center staff were educated on the project, and a notification and script were integrated into the clinic’s electronic medical record system to remind clinicians to discuss vaccination with this population. Ultimately, the outcome measure could not be evaluated as no system for confirming immunization was established. However, there was some improvement in the process measures of documenting immunization status (2% in cycle 1, 6% in cycle 2), discussions held (8% in cycle 1, 25% in cycle 2), and immunizations prescribed (2% in cycle 1, 19% in cycle 2). This project would benefit from an extended timeframe to increase sample size, and from a revision of our outcome measure from immunization events to immunizations prescribed.

Dr. Kristen Murray and Dr. Lorenza Saad – Byron Family Medical Centre

Improving education for residents on exercise prescription in patients with peripheral vascular disease

Faculty Lead: Dr. Sonny Cejic

Project Type: Quality Improvement

Peripheral artery disease (PAD) refers to atherosclerotic disease of the lower extremities. It is a chronic condition, leading to ischemia and its symptomatic consequences including significant pain, decreased functional capacity, ulceration and gangrene. It is a common condition worldwide, but remains an underdiagnosed and mismanaged disease in primary care. Like many other chronic conditions, exercise has been shown to have a plethora of positive effects on patients with a diagnosis of PAD. It has been shown to improve endothelial function, enhanced collateral circulation and reduce inflammation, and a structured exercise program has been shown to improve overall functional capacity. Our research shows resident physicians are not familiar with the benefits of exercise prescription for this population, and lack the confidence and understanding to prescribe exercise for patients with PAD. The aim of this quality improvement project was to increase awareness and confidence of exercise prescription for patients with PAD for family medicine residents at Byron Family Medical Centre (BFMC) through an educational session. A survey study will be used to determine the change in residents ability to prescribe exercise for patients with PAD.

Dr. Anish Tejura – PGY3 Oncology

A Review of the Management of RCC

Faculty Lead: Dr. Ricardo Fernandes

Project Type: Literature Review

Renal Cell Carcinoma (RCC) is currently the 10th most common cancer diagnosed in Canada. According to latest Canadian Cancer Statistics published in 2023, it is estimated that RCC will make up 4.5% of all new cancers diagnosed in men and 2.6% of new cancers diagnosed in women. Five year overall survival (OS) in all-comers is estimated to be 76% (US data from 2009-2015) and OS is largely dependent on the stage at initial diagnosis. In patients with stage I disease 5 year OS is 93%, for Stage II/III 72.5% and for metastatic disease 12%. In addition, the incidence of RCC is projected to increase. This is both related to advances in imaging techniques which are able to pick up more incidental masses as well as lifestyle related factors. At the same time, with the introduction of immunotherapy and VEGF TKI's the treatment paradigm for RCC is rapidly evolving. Furthermore, there are now recommendations for incorporating systemic therapy into the management of RCC in the adjuvant setting which is a novel development for the disease site. Given the increase in incidence of RCC, the morbidity associated with metastatic disease and the rapidly changing guidelines for management, the purpose of the current article is to review the latest literature in the management of RCC. We hope this article will serve as a guide for the GP-Oncologist in managing RCC in day-to-day practice.

Session F

Dr. Ravin Alaei, Dr. Preet Dhaliwal, Dr. Selam Ogbalidet, Dr. Sofia Stover, and Dr. Christopher Tran – St. Joseph's Family Medical Centre

Assessing the degree of inhaled corticosteroid prescribing for reliever therapy in asthma in the primary care setting

Faculty Lead: Dr. Saadia Jan

Project Type: Quality Improvement

GINA 2022 Asthma Guidelines recommend inhaled corticosteroid/long-acting beta-agonist (ICS-LABA) as the maintenance and reliever puffer for all levels of asthma severity for patients 12 and over. This is in contrast to previous practice in which short-acting beta agonist (SABA) PRN was thought to be sufficient for asthma at lower severities as standalone reliever therapy. This recommendation is based on evidence that addition of ICS reduces the risk of severe exacerbations with similar symptom control compared to SABA.

Dr. Adam Aue, Dr. Samuel Bloomfield, Dr. Delaney Cosma, Dr. Eve Deck, and Dr. Tharindu Fernando –
St. Joseph's Family Medical Centre

Improving documentation of informed consent conversations during initiation of new medications

Faculty Lead: Dr. Laura Lyons

Project Type: Quality Improvement

Effective medical record keeping includes documentation of informed consent to a proposed treatment plan. Chart audits are regularly conducted at the London urban teaching sites to assess the adequacy of medical record keeping. The August 2022 St. Joseph's Family Medicine Center (SJFMC) audit demonstrated low rates of documented discussion of side effects during the initiation of new medications (47%) compared to other London urban sites (60%). Our goal was to increase the percentage of encounters involving accurate documentation of side effects when a new medication is initiated at the SJFMC by 25%. We implemented several 'stamps' of common medication. Posters were placed in clinic rooms to serve as a reminder. Retrospective chart review was completed to assess the effectiveness of these changes. A total of 1792 patient encounters were recorded in two PDSA cycles. A total of 355 new medications were started. Discussion of side effects were documented 173 times, including the use of stamps 84 times. We observed a significant improvement in documentation between PDSA cycles with the implementation of additional stamps and reminder posters (PDSA 1: 30.63%, PDSA 2: 56.97%). Documentation of informed consent conversations is essential for good medical record keeping. We identified a need for improved documentation of potential side effects at our center. The implementation of stamps and posters led to a significant increase in documentation of possible side effects when a new medication was initiated at SJFMC, however, we did not attain our goal of increasing rates of documentation by 25% from baseline (58.75%).

Dr. Sidra Malik – St. Joseph's Family Medical Centre

Prenatal Colostrum Collection and its Benefits for Infants of Gestational Diabetes Mothers

Faculty Lead: Dr. Laura Lyons

Project Type: Literature Review

Although extreme efforts have been made to mimic human milk, the flux in composition and nutrient value of human milk is difficult to reproduce commercially with formula milk. Despite the World Health Organization's (WHO) recommendation for human milk to be the primary source of nutrition in infants up to six months of age, early introduction of formula milk can be required for infants of mothers with gestation diabetes. To meet the caloric demands of infants born to GDM mothers, the use of colostrum collection kits in GDM mothers to collect prenatal colostrum has been considered in primary care. Given there is no commercial counterpart to colostrum, this literature review was conducted to assess evidence-based research of the use of antenatal colostrum collection in GDM and infant outcomes. To find evidence-based research, we performed a literature review using PRISMA method on May 17th, 2023, by searching the available electronic databases including , PubMed, Medline, CINHALL, OVID and Healthstar up until December 31st, 2022, using the keywords: "antenatal milk expression" and "infant outcome" and "Diabetes in pregnancy" (n=11) focusing on studies that reported outcomes in newborns in the context of antenatal colostrum expression and collection. Two reviewers screened titles, abstracts, and full-text articles, followed by a critical appraisal and analysis of the selected studies and only articles that fit the inclusion criteria were included in this study (n=7). The studies included collectively demonstrate that despite our understanding of antenatal breast milk expression, and its potential benefits, there are areas that require further investigation. Despite some findings that support the safety and positive outcomes associated with this practice, its intricacies, variations, and potential limitations underscore the necessity for ongoing exploration and the development of evidence-based guidelines. More rigorous evidence base is required to support what is currently a common primary care recommendation with further research needed to define neonatal outcomes more precisely, remains a challenge due to the limited evidence and significant variation in the amount of colostrum produced among women. Meeting the current Canadian Pediatric Society (CPS) guidelines of providing 5ml/kg of milk further emphasizes the need for more rigorous and targeted research in this area.

Dr. Ekeleoseye Sarah Ebhomien, Dr. Patrick Gatutsi, and Dr. Aiman Hassan

– St. Joseph's Family Medical Centre

Improving the immunization rate at St. Joseph's Family Medical Centre

Faculty Lead: Dr. Eric Wong

Project Type: Quality Improvement

BACKGROUND: It is not common for patients to initiate the discussion about immunization when they present for their regular appointments as they often have various other health concerns they wish to discuss with their healthcare providers. At St Joseph Family Medicine and Dental Center, like other busy family clinic clinics, immunization discussions are often overlooked due to time constraints and physicians forgetting to initiate discussions. Another possible reason is that patients could have missed preventative care services due to COVID-19. This has resulted in low vaccination rates for patients. **AIM:** This quality improvement project aims to improve the rate of age-appropriate vaccinations for all patients at SJFMC from 49.5% to 70% by October 2023. **METHODOLOGY:** A group of three resident physicians from different teams at SJFMC collaborated on this project. Strategies were implemented, including informing the residents and nursing staff in all the teams at SJFMC about the QI project, reminding them to review patient charts, and discussing and providing age-appropriate vaccinations. Other strategies include using an EMR template and creating reminders for unvaccinated patients. **RESULTS:** The vaccination rate improved from 49.5% to 71.2% after the first PDSA cycle. However, the second PDSA cycle did not further improve the vaccination, with the overall vaccination rate dropping to 65.5%. In the third PDSA cycle, the use of reminders for unvaccinated patients significantly improved, with the overall vaccination rate increasing to 73.9%. **IMPLICATIONS:** Time constraints during patient encounters were identified as a significant barrier to initiating discussions and providing vaccines. The use of reminders for unvaccinated patients proved to be an effective intervention.

Dr. Marisa Market – Ilderton

Resident Physicians' Comfort with Female Sexual Dysfunction

Faculty Lead: Dr. Daren Van Dam

Project Type: Quality Improvement

Female sexual dysfunction (FSD) has unfortunately been grossly overlooked from a cultural and academic perspective. While trainees recognize FSD as an important topic, they report insufficient exposure and lack of comfort. This study aimed to improve Resident Physicians' comfort with investigating, managing, and counselling patients regarding FSD. This was achieved through multiple plan-do-study-act (PDSA) cycles, which included interventions such as didactic educational presentations and handout resources. Interestingly, Pre-PDSA 1 responses showed that only 50% of Residents had had formal education on FSD. The outcome measure for this project was Resident Physicians' median response to the question "How comfortable are you at counseling patients about female sexual dysfunction?", with the goal of increasing this score by at least 1 point on the Likert scale by March 2024. The results of the PDSA cycles 1 and 2 from this project showed that Residents had increased comfort levels with discussing, investigating, diagnosing, managing, and most importantly counselling patients about FSD after they had received formal education via a didactic virtual lecture. The average Likert score increased from 1.75 Pre-PDSA to 2.625 and 3.0 post-PDSA cycles 1 and 2, respectively. Unfortunately, due to small sample size and poor compliance with surveys, it is unclear whether physician-specific or patient-specific handouts improved Residents' comfort. The significance of the findings from PDSA cycles 1 and 2 show that even with a 15-minute virtual lecture, physicians can become more confident and comfortable in the care of patients with Female Sexual Dysfunction.

Dr. Dhruv Jasani, Dr. Ziad Sabaa-Ayoun, and Dr. Rory Vaughan– Ilderton

Increasing the documentation of medication side effect discussions at MCFMC

Faculty Lead: Dr.

Project Type: Quality Improvement

Prescription medication use among Canadians has increased significantly over the last decade. Annually, there are an estimated 200,000 severe adverse drug reactions in Canada, and cost the Canadian healthcare system an estimated \$17.7 billion. Appropriate communication and education is an important aspect of the patient-physician relationship, and failure to adequately warn patients of medication side effects when prescribing can cause the breakdown of trust in this relationship. Baseline data showed that documentation of specific medication side effects discussion only occurred in 7% of patient interactions where medications were prescribed at Middlesex Centre Family Medicine Clinic. This Quality Improvement project aims to improve the discussion of side effects at MCFMC by 15% through the development and usage of text Macros within the Electronic Medical Record (EMR) Accuro. Awareness of the Macros was raised amongst providers at MCFMC through the usage of WhatsApp messaging service and posting posters with these Macros in all clinical exam rooms. At the conclusion of PDSA cycle 3, documentation of medication side effect discussions had increased to 27.4%. This project was relatively easy to implement, and shows that by utilizing text Macros, documentation and discussion of medication side effects can be improved on an organizational level. While representing an initial high effort/time investment, their use can improve patient care and health record documentation.

Room 1120: Session G

Time	Presenter	Presentation
2:10 pm	Dr. Thomas Dymond and Dr. Hecham Omar	Increasing the usage of Symbicort as the rescue inhaler for asthmatic patients above the age of 11 at VFMC
2:20 pm	Dr. Mayar Zawawi and Dr. David Zheng	Increasing the number of discussions regarding medication indication and promoting health literacy among patients with polypharmacy (5+ medications) at VFMC
2:30 pm	Dr. Jasveen Kaur, Dr. Samir Mohammed, and Dr. Syed Ahmed Neamatullah	Improving waist circumference measurements in diabetic visits in Victoria Family Medical Centre
2:40 pm	Dr. Shawn Khan	Identifying target drainage volumes for therapeutic paracentesis in refractory ascites: A systematic review
2:50 pm	Dr. Damilola Bodunde	Rewriting the script on steroid injections vs. hyaluronic acid vs. PRP

Room 1150: Session H

Time	Presenter	Presentation
2:10 pm	Dr. Ellen Tousaw	Improving rates of examination of plagiocephaly in babies aged 0-9 months
2:20 pm	Dr. Alvin Janes	Awareness of aspirin in preventing pre-eclampsia in pregnancy
2:30 pm	Dr. Sama Boles	Family Medicine Study Guide MSK Crash Course – Hand/Fingers
2:40 pm	Dr. Aleksa Zubic	The Effect of Virtual Simulation Based Teaching on regional and Rural Family Medicine Resident's Comfort with Acute Care Scenarios
2:50 pm	Dr. Basmah El-Aloul	Trends in Diversity of the CCFP-EM Residency Program at Western University from 2014 to 2023
3:00 pm	Dr. Hasan Baassiri	Survey of Airway Management in Canadian Emergency Departments

Session G

Dr. Thomas Dymond and Dr. Hecham Omar – Victoria Family Medical Centre

Increasing the usage of Symbicort as the rescue inhaler for asthmatic patients above the age of 11 at VFMC

Faculty Lead: Dr. Cristina Cookson

Project Type: Quality Improvement

Asthma is a common chronic respiratory disease that can cause significant functional impairment, hospitalization or in extreme forms, death. Until recently, the guidelines recommended use of a short-acting beta agonist (e.g. salbutamol) as a rescue inhaler. In the last few years, guidelines have shifted to a strategy called maintenance and rescue therapy (MART), which uses one inhaler as both rescue and maintenance therapy, simplifying the regimen while also showing improved clinical outcomes. Furthermore, this strategy was better for the environment because the inhaler indicated in the guidelines (budesonide/formoterol – referred to further by its brand name Symbicort), does not use a propellant. Meter dose inhalers use a propellant that is a potent greenhouse gas and likely not needed for efficacy. We attempted to increase the number of asthmatic patients over the age of 11 on Symbicort from a baseline of 22% up to a target of 30%. Our first PDSA Cycle implemented posters in each clinic room as well as the waiting room. Our second PDSA Cycle implemented a reminder in the EMR for all asthmatic patients over the age of 11 not on Symbicort. Ultimately, after PDSA Cycle 1, the percentage of patients on Symbicort increased from 25.4% to 25.6%. After PDSA Cycle 2, the percentage did not change and was stable at 25.6%. Likely, these PDSA Cycles failed to reach target due to poster/reminder fatigue as well as lack of asthma visits given the time of year. Likely with longer time periods, there may have been better response.

Dr. Mayar Zawawi and Dr. David Zheng – Victoria Family Medical Centre

Increasing the number of discussions regarding medication indication and promoting health literacy among patients with polypharmacy (5+ medications) at VFMC

Faculty Lead: Dr. Daniel Grushka

Project Type: Quality Improvement

Medication errors – closely linked with low health literacy - are among the most common medical errors and directly relate to 30% of emergency department visits. Medication Literacy, referring to the necessary abilities to follow through with medication information, can be targeted to improve medication adherence and reduce medication error. Given that those with polypharmacy are particularly prone to medication error, our QI project aimed to increase the number of medication discussions surrounding medication rationale among VMFC patients with polypharmacy. At baseline and during each PDSA cycle, 1-week cross-sectional samples were reviewed from each care team. Our change ideas included introducing a "Med 2 Version date: 2015-05-08 Literacy Reviewed" checkbox in the EMR, having pharmacist-led teaching on BPMH and medication literacy, and promoting medication list printing during visits. Approximately a third of patients had polypharmacy of which the majority did not have a concomitant MedsCheck through their community pharmacist, and there was a consistent minority of patients without up-to-date EMR medication lists. Run charts suggest that our change ideas did not significantly change the percentage of medication rationale discussions. However, there was an increase in the percentage of up-to-date EMR medication lists, and MedsChecks documented in the chart. As reflected by the average appointment times (a balance measure) remaining near the allotted time limit, and through verbal feedback, time constraints were a barrier to uptake of these change ideas. Future QI efforts could instead consider increasing referrals to community pharmacists for MedsChecks, potentially achieving the same outcome of increased medication literacy while minimizing time investment.

Dr. Jasveen Kaur, Dr. Samir Mohammed, and Dr. Syed Ahmed Neamatullah – Victoria Family Medical Centre
Improving waist circumference measurements in diabetic visits in Victoria Family Medical Centre

Faculty Lead: Dr. Jamie Wickett

Project Type: Quality Improvement

Body mass index has commonly been used as a measurement for classifying obesity and risk for cardiometabolic disease processes. However studies have shown that measuring waist circumference may actually be a better tool as it takes into account direct measurement of visceral adipose tissue from abdominal fat which is an independent risk factor for assessing metabolic syndrome. Each diabetic visit in the Victoria Family Medical Centre utilizes a standard diabetic flow sheet template that has multiple measuring parameters including blood pressure, heart rate, weight, and waist circumference. During our chart review, we discovered that a very minuscule amount (2.8%) of completed Diabetic encounters had documented waist circumference. Accordingly we sought to conduct a quality improvement project to improve the number of waist circumference measurements in diabetic visits at the Victoria Family Medical Centre. We performed multiple PDSA cycles including discussing the benefits and correct method of measuring waist circumference measurement to clinical providers, placing measuring tape on vitals machine which should be used in every diabetic visit and placing illustrative diagrams highlighting anatomical landmarks for measurements in all clinical rooms. Upon completion of the PDSA cycles, we observed that just over 45% of diabetic visits had a documented waist circumference in the chart representing a significant improvement compared to our baseline. Our interventions and initiatives proved to be successful, inexpensive and can easily be applied in clinical practice.

Dr. Shawn Khan – Victoria Family Medical Centre

Identifying target drainage volumes for therapeutic paracentesis in refractory ascites: A systematic review

Faculty Lead: Dr. Paul Howatt

Project Type: Systematic Review

INTRODUCTION: Therapeutic paracentesis is used to alleviate distension from abdominal ascites. It remains unclear how much ascites should be drained to provide symptomatic relief while minimizing risk of complications. **METHODS:** Relevant studies were gathered through an independent double selection and extraction process using four electronic databases (EMBASE, MEDLINE, CINAHL, and CENTRAL) from database inception to January 21st, 2024. The inclusion criteria consisted of randomized controlled trials and observational studies reporting outcomes of therapeutic paracentesis for refractory ascites based on volume drained. Studies involving pediatric patients, or animal and cadaveric models were excluded. Studies involving tunneled peritoneal catheters were also excluded. **RESULTS:** A total of 11 studies were included from the initial 2603 studies that were eligible for title screening. Studies included a total of 1143 patients, with a mean age of 59. The majority of studies (8/11) involved paracenteses for liver cirrhosis, with the remainder being for malignant ascites. Over half of the studies (55%, 6/11) supported the safety of large volume paracentesis, suggesting no increase in adverse outcomes based on volume drainage, including acute kidney injury (n = 2), alterations in biochemical profile (n = 2), post paracentesis circulatory dysfunction (n = 1), paracentesis-free survival (n = 1), and overall survival (n = 1). **CONCLUSION:** Current evidence is mixed and, while large volume paracentesis can often be performed safely with good success, it remains unclear whether limited drainage offers comparable levels of symptomatic relief of tense ascites. Higher quality evidence is needed, including standardized drainage frequency and intervals, type of ascites, and type of volume expanders used.

Dr. Damilola Bodunde – PGY3 Sports Medicine

Rewriting the script on steroid injections vs. hyaluronic acid vs. PRP

Faculty Lead: Dr. Graham Briscoe

Project Type: Quality Improvement

There has been years of research and debate as to the effectiveness of hyaluronic acid (HA) injections as treatment for osteoarthritis. The evidence often suggests that it has minimal to no benefit compared to placebo. At the Fowler Kennedy, patients are regularly offered intraarticular HA and steroid injection treatments for a variety of conditions including osteoarthritis (OA). Additionally, platelet-rich plasma (PRP) injections are offered as treatment for tendinopathies in addition to arthritis. There are patient information handouts for intraarticular steroid, HA and PRP injections that contain information about their effectiveness, risks and role for use. These handouts, while useful, contain information that is out of date and potentially contradictory to current evidence. A literature search was conducted to collect and summarize the latest evidence regarding each injection method. The purpose of this project was to take these handouts, update them with the latest evidence and research, and promote their more regular use as a patient information tool for appointments at the clinic..

Session H

Dr. Ellen Tousaw – Stratford

Improving rates of examination of plagiocephaly in babies aged 0-9 months

Faculty Lead: Dr. Anne Martin

Project Type: Quality Improvement

Positional plagiocephaly is the deformation of an infant's head resulting from external forces placed against a malleable skull. If left uncorrected, it can cause permanent physical deformity and can negatively impact psychosocial health. Plagiocephaly is very common, with up to 47% of infants being affected to some degree. Very few infants presenting for well-baby visits at Avon Family Medicine Centre in Stratford, Ontario, are examined for positional plagiocephaly. This project aimed to increase rates of head shape exam by 20% in 6 months, by implementing three changes: (1) a reminder in patient charts to document head shape; (2) a presentation for providers on plagiocephaly, its importance, and proper physical exam techniques; and (3) incorporating head shape into the Rourke Baby Record template used for well-baby visits. At baseline, 8% of babies aged 0-9 months had head shape documented. This improved to 35%, 62%, and 84% through PDSA cycles 1, 2, and 3, respectively. For every infant found to have abnormal head shape, parental counseling was documented and/or the patient was referred out for plagiocephaly management. Improving rates of head shape exam may lead to reduced prevalence of untreated plagiocephaly in the long term.

Dr. Alvin Janes – Stratford

Awareness of aspirin in preventing pre-eclampsia in pregnancy

Faculty Lead: Dr. Anne Martin

Project Type: Quality Improvement

Pre-eclampsia in pregnancy can have devastating effects on the mother and fetus. Although aspirin can be used in patients with risk factors for pre-eclampsia to prevent its development, the use of aspirin for this was found to be lacking in my home site. Baseline data was collected for 28 patients; 1/7 candidates for pre-eclampsia prevention were on aspirin, and only 7/28 patients had a pre-pregnancy height and weight documented to determine candidacy for pre-eclampsia prevention. A change in the EMR pre-natal stamp to prompt for pre-pregnancy height and weight increased the rate of documentation from 7/28 (25%) to 6/10 (60%) in new pre-natal patients over a 2 week period. A presentation on the topic further increased the rate of documentation to 7/7 (100%) in new pre-natal patients over a 4 week period. Although analysis is limited by sample size, the changes brought no improvement in pre-eclampsia prevention with aspirin. 1 candidate for pre-eclampsia prevention was found in the first change period (2 weeks), and 2 more new candidates were found in the second change period (4 weeks). None were started on aspirin. Small and feasible changes quickly increase the rate of documentation of pre-pregnancy height and weight, but further changes are needed to increase the rate of aspirin use for pre-eclampsia prevention.

Dr. Sama Boles – PGY3 Sports Medicine

Family Medicine Study Guide MSK Crash Course – Hand/Fingers

Faculty Lead: Dr. Graham Briscoe

Project Type: Education

Enhancement and case development for the Western Family Medicine Study Guide. Development of case-based modules on MSK hand/ finger topics to enhance and supplement FM education in MSK. Residents and learners can progress through various cases targeted to different age groups (pediatric, adult, geriatric) and work on developing differentials, physical exam skills, investigations and management plans with explanations surrounding each step

Dr. Aleksa Zubic – PGY3 Emergency Medicine

The Effect of Virtual Simulation Based Teaching on regional and Rural Family Medicine Resident's Comfort with Acute Care Scenarios

Faculty Lead: Dr. Kyle Carter and Dr. Kevinjeet Mehngar

Project Type: Research

In Canada, new family physicians graduating from a postgraduate training program account for just under half of all new physicians entering the workforce. As rural centres continue to struggle with recruitment and retention of physicians, meeting key competency objectives during postgraduate training is essential. This ensures family medicine physicians are comfortable with handling critically ill patients during training which remains a necessity to attracting graduates to practice in these settings. Low fidelity simulation offers a method of training for rare or critical events that are not often encountered during standard family medicine training. In this study we aim to explore whether this modality is superior to didactic based teaching on the same topics. This study was designed as a randomized control trial among all current family medicine residents in the Rural and Regional residency programs at Western University. Residents were invited to participate and those who signed up were randomized to an intervention (SIM) group or control (didactic lecture alongside non-enlisted residents). Outcome measured will be self-reported Lickert scales pre and post intervention. We expect that residents will find the interactive low fidelity SIM model to be superior to traditional didactic teaching. We hope that this translates to an effective, yet low resource-intensive implementation of SIM based teaching in the Family Medicine PGME curriculum.

Dr. Basmah El-Aloul – PGY3 Emergency Medicine

Trends in Diversity of the CCFP-EM Residency Program at Western University from 2014 to 2023

Faculty Lead: Dr. Munsif Bhimani

Project Type: Research

INTRODUCTION: A lack of diversity, particularly gender diversity, has been documented in Emergency Medicine (EM). As of 2019, 31% of Emergency Medicine physicians in Canada were female. To improve diversity of EM resident physicians, the CCFP-EM residency program at Western University (Western) revised its residency application and interview process to select for residents with nine personal qualities rather than emphasizing traditional “merit”-based metrics that often favour individuals with access to resources and opportunities. The revised selection process was implemented in a stepwise approach from 2018 to 2022. Our objective was to examine differences in demographics of residents in the CCFP-EM residency program at Western before and after the revised selection process. **METHODS:** Publicly available data on gender, medical school, and school of Family Medicine residency was obtained for residents matching to the CCFP-EM residency program at Western from 2015 to 2024. Medical school and school of Family Medicine residency were of interest to assess fairness to non-local applicants. The percentages of female residents, residents who completed medical school outside of Western, and residents who completed Family Medicine residency outside of Western, before (2014–2018) and after (2019–2023) the revised selection process, were compared using unpaired *t* tests. **RESULTS:** After the revised selection process, there was an increase female resident, with a mean of 41.4% compared to 28.5% before the revised process, although not statistically significant ($P=0.28$). There was an increase in residents who completed medical school and/or Family Medicine residency outside of Western, although not statistically significant. After the revised process, a mean of 71.8% of matched residents had attended medical school outside of Western, compared to 57.0% before the revised process ($P=0.28$). After the revised process, a mean of 37.0% of matched residents had completed Family Medicine residency outside of Western, compared to 32.5% before revised process ($P=0.65$). **CONCLUSIONS:** The revised residency selection process yielded some improvement in gender diversity and fairness to non-local applicants, although not statistically significant. This study was limited by publicly available demographic data to assess diversity. Future studies should include additional markers of diversity such as ethnicity and socioeconomic status for a more holistic assessment of diversity.

Dr. Hasan Baassiri – PGY3 Emergency Medicine

Survey of Airway Management in Canadian Emergency Departments

Faculty Lead: Dr. Dawn Giffin

Project Type: Research

Intubation practices and preferences in the emergency department (ED) have evolved significantly over the last decade. Video laryngoscopy (VL) has been shown to improve first pass success and reduce adverse events. No studies have examined emergency physician preferences in Canada. Given the less controlled nature of the emergency department compared to the operating room, Canadian emergency physicians may have different preferences and practices for intubation and for the unanticipated difficult airway. This prospective survey explores current ED practitioner preferences for VL vs DL intubation, and the factors involved in their decision. These include training background, level of airway management training, and comfort with airway management techniques including awake intubations. We also examine how practice setting, including geography, volume, and the presence of learners affects ED practitioner preferences. Among 138 responses, 53% were from academic emergency physicians (7% CCFP, 46% CCFP-EM, 46% FRCPC). 56% achieved their emergency medicine certification after 2010. 82.5% of respondents preferred video over direct laryngoscopy. Over 95.2% prefer video laryngoscopy for supervising learners. Regarding awake endotracheal intubation, 38.7% were uncomfortable, 16.1% were neutral, and 49.2% were comfortable. 46.8% had done an airway course in the last 5 years and 23.6% have not participated in an airway course since receiving their ER certification. This will be the first study of Canadian emergency physician preferences regarding airway management. Findings will shed light regarding future airway management training needs in academic settings as well as in independent educational courses.