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Forum en médecine familiale

THE COLLEGE OF  
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**Wednesday, October 30 / Mercredi 30 octobre**

All poster presentations take place in Ballroom D, Level 1, Vancouver Convention Centre, West Building.

This activity has not been formally reviewed by the CFPC; however, it is eligible for non-certified Self-Learning credits. Mainpro+ participants may also earn additional certified credits by completed a [Linking Learning exercise](#).

**Facilitated Posters 501-506****Medical Student****501 Systematic Evaluation of Canadian Diabetes Mobile Apps - Work in progress**

Mary Nguyen\*; Nafis Hossain; Rohin Tangri; Payal Agarwal, MD, CFPC; Fiona Thompson-Hutchison, APN, CDE; Ilana Halperin, MD, MSc, FRCPC

**Context:** People living with diabetes mellitus are increasingly using mobile apps to assist in self-management through blood glucose (BG) tracking. Additional features include weight loss support, carbohydrate counting and bolus insulin calculators. However, identifying safe and appropriate mobile applications is difficult for both patients and health care providers (HCPs).

**Objectives:** 1) Review diabetes apps available in Canada using the Mobile App Rating Scale (MARS) tool and generate usability scores for each 2) Characterize availability of features across all apps 3) Evaluate clinical safety of bolus insulin calculators 4) Evaluate quality of exportable BG reports meant for HCP use. **Design/setting:** Two primary reviewers searched for, screened, and evaluated diabetes apps from android and iOS apps stores resulting from the search terms "glucose" and "diabetes". 61 apps were scored. **Intervention:** Apps were reviewed based on a predefined quality checklist, including availability of features and the MARS tool. **Main outcome measures:** MARS total quality score and subsection scores (engagement, functionality, aesthetics, information), presence of various diabetes management features, presence of various BG report features. **Results:** Overall MARS quality rating score was 3.14/5. The functionality subsection scored the highest (3.94/5) and information scored the lowest (1.96/5). The majority of apps have the ability to track carbohydrate intake (43/61), send reminders (42/61), and can generate BG reports (42/61) but few have bolus insulin calculators (6/61) and remote diabetes support (10/61). Of the 42 that generate BG reports, most lacked key features such as range and average BG by time of day, highlighting hypoglycemia, or providing statistics in keeping with the AGP recommendations. **Conclusion:** Despite widespread availability of many iOS and Android diabetes management apps, few are of high quality. Next steps for this project include bolus insulin calculator assessment and generating a list of high performing apps most suitable for clinical use.

**502 Characteristics of Frequent Users of Emergency Services**

N. Elazhary\*, MD, CCMF (MU), FCMF; Y. Chiu, PhD; A. Vanasse, MD, PhD; M.C. Chouinard, RN, PhD; N. Dubuc, PhD; M.F. Dubois, PhD; J. Courteau, PhD; C. Hudon, MD, PhD

**Objective:** Identify certain characteristics of frequent users of emergency services. **Type of study:** Retrospective. **Site:** Emergency services in the province of Quebec. **Parameters:** We have surveyed the data banks of the "Régie de l'assurance maladie du Québec" on frequent users in the province of Quebec having ambulatory care sensitive conditions (ACSC). We have compared user characteristics between frequent and non-frequent users. Frequent users were defined as 4, 5, 6 visits or more by year (FU4, FU5, FU6 respectively). **Participants:** The population studied -included 18 years old and over in Quebec having consulted in an emergency department between the January 1st 2012 and the December 31st, 2013 (index date) and having at least one ACSC in the 2 years previous, including the index date. All deaths were excluded in the year following the index date (n = 61,637, 10,85%). **Results:** The population study was 506 555 users. The prevalence of FU4, FU5 and FU6 was 5,83, 3,43 and 2,09% respectively. Compared to the general population, these 3 groups are generally composed of women, patients aged between 65 and 84, having certain ACSC (diabetes, coronary disease, pulmonary obstructive disease) and have a higher index of comorbidity. The prevalence of alcohol or drug abuse, psychosis and depression were higher in these groups. Moreover, this prevalence is higher with the FU5 and FU6 groups. **Conclusion:** The population of frequent users of emergency services is characterized by a higher comorbidity as well as more mental health issues or dependence.

First Five Years

**503 Excessive Gestational Weight Gain: Assessing patient and provider perceptions**

Stephanie Godard, MD, CCFP; Adriana DiStefano, MD, CCFP

**Context:** Excessive gestational weight gain (EGWG) is increasingly prevalent, with risks to mother and baby. Guidelines for weight gain in pregnancy exist, however, there is a paucity of data on how primary care providers (PCPs) counsel patients and on the patient experience. **Objective:** To assess provider counselling practices and patient understanding of GWG, physical activity and nutrition in order to identify barriers and interventions for patients from diverse cultural backgrounds. **Design:** Qualitative interviews/focus groups with modified grounded theory analysis. **Setting:** South East Toronto Family Health Team (SETFHT) and Flemingdon Health Centre (FHC) from September 2016 to February 2018. **Participants:** Eight Family Practice obstetric providers and ten pregnant patients from diverse socioeconomic backgrounds. The majority of patients from FHC were immigrants from Southeast Asia while most from SETFHT were caucasian. **Intervention:** Semi-structured audio-taped interviews and focus groups with PCPs and patients from SETFHT and FHC. **Main outcome measures:** 1) Patient perception of GWG, nutrition, physical activity; 2) PCP counselling practices; 3) Perceived barriers and solutions. **Results:** Patients had limited understanding of long-term risks of EGWG and reported infrequent counselling by PCPs. SETFHT patients had high health literacy and were proactive in seeking information, but experienced difficulty navigating reliable resources. FHC patients had lower health literacy and more passive interactions with PCPs, relying on family advice and cultural practices to inform health behaviours. Barriers included social isolation and finances. Both groups desired increased proactive health counselling and resources. Physicians were knowledgeable about EGWG and reported counselling, though patient retention and limited time constraints were barriers. **Conclusion:** Healthy lifestyle in pregnancy is an important but underemphasized topic in antenatal care due to barriers faced by patients and physicians, with unique socioeconomic considerations. There is an opportunity to increase patient and provider education and develop culturally sensitive patient-centered weight management interventions.

Resident

**504 Resident Perspectives on Quality Improvement Education in Family Medicine Residency**

Kelsi Cole\*, MD; Hiromi Tissera, MD; Camille Hortas-Laberge, MD; Alicja Krol-Kennedy, MD, MPH; Jason Chhina, MBBS; Derek Chan, MD, MBA, CHE

**Context:** Quality Improvement (QI) is an important aspect of health care, and is recognized as a key competency that must be learned and practised by all family physicians. QI education has been recognized as an area for enhancement, and there is no literature addressing family medicine resident perspectives on QI education. **Objective:** To explore family medicine resident perspectives on QI education within family medicine residency programs. **Design:** An online nationwide survey was sent to 3,026 family medicine residents representing all 17 family medicine residency programs across Canada. Bivariate level analysis and a thematic analysis on narratives within the survey were conducted. **Findings:** With a response rate of 16.1% (n=489), our survey identified that there is positive uptake by residents who feel it is a responsibility for them to learn and participate in QI, but that there are a number of challenges within a short residency program that residents face when participating in QI experiences. **Conclusions:** This was the first large-scale survey of its kind, and the results of this study provide valuable insight into the perspective of family medicine residents on QI education. Because QI is an expected area of competence, knowing learners' perspectives on QI and QI education can optimize the integrate of QI teaching into residency programs.

**505 Developing Priority Topics and Key Features for Enhanced Skills**

Roy Wyman, MD, CCFP, FCFP; Tatjana Lozanovska, Nadia Mangal\*, MPA

**Objective:** To define priority topics and key features for the assessment of competence for approved Certificates of Added Competence (CAC) domains of care. **Design:** Priority topics were developed using a modified nominal group method combining surveys and group discussions in an iterative fashion. Working groups (WG) and validation groups (VG) completed surveys to identify priority topics. Frequencies of citations were calculated and compared resulting in the first iterations of priority topics. Iterative discussions were held with WG's in face-to-face meetings to decide and finalize priority topics. Key Features were developed through four iterations using a nominal group method, combining individual work and group discussion. Each group had an average of 6 two-day face-to-face meetings over a two-year period. **Setting:** Meetings in an office setting held at the College of Family Physicians of Canada (CFPC). **Participants:** WG's consisted of between five to nine members recommended by the Communities of Practice in Family Medicine (CPFM) Program Committees and Royal College Specialty Committees [Family Practice Anesthesia (FPA), Enhanced Surgical Skills (ESS) and

Obstetrical Surgical Skills (OSS)]. VGs had between 194 to 227 participants selected from the CPFM database. **Findings:** Lists generated by each nominal group and the corresponding VG were very similar. Care of the Elderly (COE) had the lowest correlation of priority topics between the WG and VG at 0.68 and FPA the highest at 0.91. Final number of priority topics ranged from 13 for both Addiction Medicine (AM) and OSS to 18 for COE. The average number of key features per priority topic was 4. **Conclusion:** A collaborative nominal group method allowed for a validated set of priority topics and key features in all CAC domains. These will guide in-training assessment and inform curriculum development.

506 CANCELLED

### Education Posters

507 **Medical Education and the Truth and Reconciliation Commission Calls to Action – Work in progress**

Amrita Roy\*, MD, PhD; Saadia Hameed, MBBS, MCISc(FM), CFPC

**Objectives:** Various Canadian medical education bodies and institutions have released formal responses to The Truth and Reconciliation Commission (TRC) of Canada's Calls to Action on Indigenous health. Through a scoping review and thematic analysis of formal response documents, our objectives are: 1) to map out the extent and nature of the responses; and 2) to contextualize the responses with Indigenous health concepts. **Methods:** 104 medical education bodies and institutions - national bodies, provincial bodies, faculties of medicine, and individual medical education programs - were identified. Websites were hand-searched for publicly available formal responses (English or French); when no document was located, the body/institution was e-mailed. Eligible documents were reviewed, and data extracted, charted, mapped and synthesized. The thematic analysis involved coding, categorization and abstraction, and triangulation with Indigenous health literature. **Results:** At time of abstract submission, analysis is in progress. Nine documents were deemed eligible for inclusion. Common content included declarations of commitment to address calls to action; summary of activities done; proposal of future activities; reference to collaboration with Indigenous partners; acknowledgement of Indigenous health disparities and healthcare access barriers; acknowledgement of colonization and social determinants of health; and recognition of traditional healing approaches. Education and curricular issues discussed included cultural competence and safety training, and recruitment of Indigenous trainees. **Conclusions:** In addition to the bodies/institutions with released formal responses, several others indicated by e-mail that work was being done towards responding to the TRC report. Thus, there appears to some commitment towards addressing the Calls to Action. However, the process of reconciliation is complex, and risks tokenism if not done appropriately. Only one of nine documents included an action plan with timelines and measurable landmarks, and there was minimal reference in documents to evaluation. Additionally, while physician education is important, broader system-level and societal changes are required.

### First Five Years

508 **Can Clinical Teachers Distinguish Between Competencies and Entrustable Professional Activities?**

Mark Broussenko\*, MD, CCFP, MSc; Sarah Burns, MD, CCFP; Fok-Han Leung, MD, CCFP, MHSc;  
Diana Toubassi, MD, CCFP

**Objective:** To determine if front-line clinical educators are able to distinguish between learning competencies and entrustable professional activities (EPAs). **Design:** A 20-item survey tool was developed based on the University of Calgary Department of Family Medicine's publicly accessible lists of competencies and EPAs. **Setting:** University of Toronto Department of Family & Community Medicine; convenience sample included 5 of the 14 distributed training sites. **Participants:** Full/part-time faculty members were eligible for inclusion. There were no formal exclusion criteria. A total of 60 participants returned surveys during the timeframe allocated for collection. **Intervention:** The survey required participants to identify each listed item as either a competency or EPA, after reviewing a brief definition of each. Data on years in practice, hours spent supervising per week, and direct involvement in medical education were also collected. **Main outcome measures:** The main outcome measure was the mean number of correct responses on the survey (i.e., how accurately participants could label items as competencies or EPAs). **Results:** The mean rate of correct responses was 45.3% (+/- 21.8%). Subgroup analysis failed to reveal any correlation between any of the secondary characteristics and number of correct responses. **Conclusion:** Clinical educators in our study were not able to reliably distinguish between competencies and EPAs. Further research in the practical "real world" context is recommended prior to intensive curricular changes.



**509 Supporting the Development of Self-assessment Skills with CBME Assessment Data**

Karen Schultz, MD, CCFP, FCFP; Tara McGregor, MD; Rachelle Porter; Seema Jain, MD; Kathleen Nichols, MD; Joel Pariag, MD; Rob Pincock, MD, CCFP

**Context:** Self-assessment is a key skill in a self-regulated profession. Competency-based medical education (CBME), where frequent formative assessment data about residents' competency development is gathered, lends itself to building these skills. One strategy to develop self-assessment skills is to empower residents to create documentation of preceptor-generated feedback including a self-assessment of performance, which is then reviewed, changed as needed, and signed off by preceptors. **Objective:** To identify how often resident and preceptor assessment of resident performance disagrees, and to what extent. **Design:** Comparative analysis of performance assessment between preceptors and residents. **Setting:** Queen's University Family Medicine Program from 2011-2019. This program uses field notes (FNs) for daily formative assessments, where 4 levels of performance are specified, indicating increasingly competent performance: flagged (dangerous), close supervision, minimal supervision and supervision for refinement. **Results:** Of the 58,740 FNs submitted between 2011-2019, 80% (47,102) were preceptor-generated, 20% (11,639) resident-initiated. The majority of resident-initiated FNs (72%) showed concordance between resident and preceptor assessments. Of the 28% that were discordant, preceptors assessed the resident higher than the resident assessed themselves 73% of the time. Of the 27% of the time that residents' assessments were higher than their preceptors' assessment, 1% of those identified themselves as ready for independence when their preceptors chose flagged or close supervision. Of the 30 residents who overcalled their performance, 26 did this only once or twice, with 4 doing this >5 times. **Conclusion:** Most residents self-assess their performance accurately. When there is disagreement between preceptor and resident assessment of performance, most residents underrate their performance. There are a minority who overcall their performance, and a small subset who do so repeatedly, raising concerns about patient safety. Programs can use CBME-based assessment systems to identify and support residents who need to hone their self-assessment skills.

**510 Five Weekend National Family Medicine Program Sustained Faculty Development Successes**

Helen P. Batty\*, MD, CCFP, MEd, FCFP; Yves R. Talbot, MD, MCFP, FRCPC(C); Walter W. Rosser, MD, CCFP, FCFP, OC

**Context:** 1994-2005 DFCM University of Toronto faculty offered a time-efficient and accessible 1-year five fly-in weekends (5WE) faculty leadership development (FD) program for busy practicing clinicians interested in exploring the possibilities of an academic career. This program has served ever since as a viable model for many other successful FD/CME programs. **Objectives:** The 5WE co-founders sought to develop an active network of Anglophone and Francophone national leaders in Family Medicine as a scholarly community of practice to influence education, research, and advocacy for public policy to improve the quality of health care and population health. **Design:** Descriptive outcome study **Setting:** University of Toronto, DFCM. **Participants:** Junior faculty and midlife community-based practicing Family Physicians from across Canada plus a few international FM faculty. **Main outcomes:** We describe features of the year-long 5WE program model; highlight successful outcomes, such as nationally prominent graduates and their educational, advocacy, professional and clinical impacts; and various subsequent "daughter" programs. **Results/findings:** After ten iterations of the program, we had almost 100 graduates, mainly from Canada and some international participants (e.g., Thailand, Brazil, Trinidad). Intended outcomes included: a strong alumni network, including both Francophone and Anglophone colleagues; high team project completion rate, several with peer-reviewed publications. Unintended impacts included the development of five national CME programs: Canadian FM Research, Toronto Counselling/Psychotherapy, Sports Medicine, Palliative Care and Care of the Elderly) and two international FD (Germany and Thailand) spin-off programs plus similar South American; and many Janus Scholars Funded projects. Notable graduates include presidents of national and provincial Family Medicine Colleges, Chairs of Family Medicine programs, and Deans of medical schools. **Conclusion:** The 5WE curriculum CE model and its FD content continues to be popular and effective nationally and internationally in ongoing Health Professions Education, 30 years after its first introduction at the U of T DFCM.

**511 A Formal Curriculum for Health Professional Educators in Undergraduate Education**

Sherylan Young\*, MD, CCFP, FCFP; Andrea Goncz, NP-PHC, MN; Evan Chong, MD, CCFP

**Context:** It is important that learners graduate with the understanding of the roles of all health care team members to enable effective collaborative practice and improve health outcomes. Medical students are learning in environments that include interprofessional health providers (IHPs) but are not being formally taught by IHPs as health professional educators (HPEs) while participating in direct patient care. Also, no formal curriculum exists to facilitate this learning. **Objective:** To study the effect of a formal curriculum for HPE learning experiences during the clinical clerkship family medicine core rotation. **Setting:** Sunnybrook Academic Family Health Team. **Participants:** Third Year Medical Students in their Core Family Medicine Rotation. **Intervention:** Collaboratively with HPEs, HPE learning experiences were itemized

and mapped to CanMEDS competencies. Learning objectives were developed. During their clerkship family medicine core rotation, students were assigned to clinical sessions with HPEs. To formalize the experience, students met with the HPE for an "orientation huddle" to review learning objectives prior to a clinical learning session and after a session for a "post-encounter huddle" to debrief and review the clinical experience. **Main outcome measures:** The impact of the formal HPE learning sessions was evaluated through focused interviews exploring: 1) students' clinical learning experience from an educational perspective; 2) students' views of the formal learning experience; and 3) how the experience affected understanding of IHP collaboration in comprehensive care. **Findings:** Our results indicate that the students have a better understanding and appreciation of IHPs. They feel that IHPs play an important role in their medical education, formal clinical education sessions with HPEs are valuable, and formalizing clinical learning experience has increased their respect of HPEs as teachers. **Conclusion:** Students are more prepared to work effectively with IHPs to provide high-quality, patient-centred care because they had a chance to see interprofessional collaboration in action.

512 CANCELLED

513 **Facilitating Blended e-Learning for Interaction in Teaching Biomedical Informatics**

Mohamud Verjee\*, MD, MBA, CCFP, FCFP; Jeremy Walker, MLIS; Paul Mussleman, MLIS; Sa'ad Laws, MLIS

**Objective:** To devise a new method of information delivery, coaching bioinformatics studies, to better engage students in reasoning the diagnosis of clinical medical cases. **Design:** Clinical cases were developed to be suitably challenging and complex, and solved by using bioinformatics resources for clinical reasoning and critical thinking. Animated graphics were also developed to prompt simulated patient responses during the simulation exercise. **Setting:** Six classroom interactive discussion sessions in medical school took place over two years. **Participants:** Eighty-three senior medical students in an MD program, led by the Family Medicine Clerkship Director (CD) and three University Librarians. **Intervention:** Students worked for up to an hour as a group on given cases, voicing strategies and ideas as they worked towards a differential diagnosis. Throughout the exercise, and based on students' proposed courses of action, librarians moved the module forward by introducing medical bioinformatics. Tools for symptoms, signs, and pharmacology, included graphics, apps, animated cartoon images, and interventional multiple-choice questions. The CD guided and taught the case's clinical aspects with narrative, such as the importance of choosing the most relevant laboratory tests and investigations to help solve the case. At the end of the session, students confirmed their top three diagnoses. **Main outcome measures:** The top diagnosis was reached either by consensus or a majority decision. Before leaving the venue, students independently had to respond anonymously online, by answering six items on an e-questionnaire, using a Likert scale (1-5). There was a 100% response rate. **Results:** 75% of students reported engagement levels at levels of "4" or "5"; 98% agreed modules added to their subject knowledge; 85% identified resources as important during the bioinformatics session. Preference for e-Learning and traditional lectures divided bimodally at 55% and 35% respectively. 8% of students preferred printed materials. 81% preferred library and information literacy instruction through e-Learning.

514 **A Novel Musculoskeletal Rotation for Family Medicine Residents at North York General Hospital (NYGH)**

Alexandre Horobjowsky, MD; Allyson Merbaum\*, MD, CCFP, FCFP

**Objective:** The goal of this project was to implement a pilot MSK rotation into the family medicine program at NYGH, assess feasibility, and explore the overall resident experience. **Design:** An MSK rotation was developed by interviewing specialists within the domain of MSK Medicine, surveying current residents, and analyzing rotations at other sites. Residents participated in the pilot rotation, then semi-structured interviews were conducted to understand the impact and experience of this novel curriculum. Results were transcribed, anonymized and coded thematically. **Participants:** Three residents who expressed interest in the rotation and had a self-perceived learning gap in this area were chosen to participate in the rotation between February and May 2019. **Intervention:** Participants undertook a four week MSK rotation designed to incorporate the musculoskeletal competencies expected in the family medicine residency. The rotation included experiences in sports medicine, rheumatology and orthopedic surgery. **Outcome:** It is feasible to design and implement an interdisciplinary MSK rotation that incorporates the expected competencies for family medicine residency. Residents found that the rotation increased their MSK knowledge, improved physical exam skills and as a result, helped them to develop a more robust differential diagnosis. Upon completion they had a better understanding of how to manage common MSK complaints including selectivity of diagnostic imaging and when to refer for specialty assessment and management if needed. **Findings:** The sports medicine experience was most effective for learning physical exam maneuvers and diagnosis, while the rheumatology experience was most valuable in learning joint injections. The orthopedic surgery experience was felt to be valuable but the experience could be shortened to one week. Other related experiences could include psychiatry, chronic pain,

chiropractic and/or chiropody. **Conclusion:** Implementing an interdisciplinary MSK rotation at a community academic site is feasible. Residents found the experience to be comprehensive, family medicine-centred and effective.

**515 “Winter Wellness Challenge”: Initiative promoting health and self-care in residency**

Madelaine Baetz-Dougan, MD; Alexandre Horobjowsky, MD; Allyson Merbaum\*, MD, CCFP, FCFP

**Objective:** Physician and resident wellness has been identified as a priority in training programs and beyond. Residents desire a learning environment encouraging camaraderie, mentorship, as well as a supportive culture. Our aim was to create a month-long Wellness Challenge encompassing these values and evaluate its effectiveness. **Design:** A survey was conducted after completion of the Wellness Challenge to gain an understanding of residents’ experience with the intervention. **Setting:** The family medicine residency program at North York General Hospital (NYGH), a community academic site at University of Toronto. **Participants:** Family medicine residents, faculty, allied health and administrative staff associated with NYGH. **Intervention:** The “Winter Wellness Challenge” was one month in duration, encompassing nutrition, mental health, physical activity, and work-life balance. Interprofessional teams participated in personal, group, and social media challenges. The design was based on Canadian Federation of Medical Students’ National Wellness Challenge. **Findings:** 13/15 (87%) of respondents participated in the intervention. Residents cited camaraderie with colleagues and staff as major reasons to participate. The physical activity and nutrition weeks were perceived as the easiest to participate in, while mental health and work-life balance were more difficult. The main learning point identified was the benefit of taking time for self-care. Residents who did not participate cited lack of knowledge of the event and time as barriers to participation. Optimizing the social media component and simplifying the intervention are areas for future enhancement. **Conclusion:** The introduction of a Wellness Challenge for family medicine residents was positively evaluated in a pilot study. The feedback will be used to make enhancements to the program for next year. Additional evaluative measures in the next iteration would allow for further understanding of the intervention’s impact. In addition, evaluating the experience of faculty participants would help to understand our faculty’s interest in wellness as a department priority.

**516 L'évaluation des impacts de l'enseignement médical décentralisé, perception des acteurs**

Jean Ouellet \* MD, CCMF, FCMF; Diane Comeau, MD; Julie Fortin, MD, CCMF, FCMF; Alexandra Dubé-Loubert, BSc, MSc; Elise Martel, MD, FRCP, CSc; Sébastien Turgeon, MD, CCMF, FCMF; Mathieu Pelletier, MD, CCMF, FCMF; Raymond Thibodeau, MD, CCMF, FCMF; Marie-Claire Bérubé, BSc, MEd; Claudine Parent, BSc, MSc

Depuis 35 ans, la faculté de médecine de l'Université Laval offre une formation décentralisée. Les étudiants passent de 6 à 102 semaines de formation en région dans nos programmes. Depuis 2010, le réseau de la santé au Québec subit beaucoup de transformations, l'université s'inquiète de leurs impacts sur la motivation de ses enseignants. Notre groupe d'intérêt amorce alors une réflexion sur les impacts des campus cliniques régionaux. Nous cherchons à documenter les perceptions qu'ont les acteurs locaux des programmes d'enseignement médical dans leur communauté. La méthode retenue pour notre sondage fut inspirée des cadres d'analyse de Morestin et EGIPSS. Un questionnaire en ligne pré-testé de 68 questions fut adressé à 1200 participants potentiels dans les 6 établissements en région. Le projet fut soumis au comité d'éthique de l'Université Laval et des deux campus cliniques. À l'automne 2016, après un second rappel 301 répondants complètent entièrement le sondage. 42 % des professionnels, 38 % des médecins et 20 % des gestionnaires. 49 % des répondants déclaraient être impliqués directement dans l'enseignement et 27 % indirectement. Des perceptions positives des impacts de l'enseignement médical dans leur communauté ont été observées pour le développement des compétences 78 %, l'interdisciplinarité 68 %, le recrutement 68 %, la satisfaction au travail 61 %, l'humanisation des soins 58 %. La sécurité des patients (12 %) est la seule perception négative à plus de 10 %. Un taux de réponse de 25 % donne une marge d'erreur de 5 %, considéré suffisant pour dégager des tendances. (4). Nous avons aussi observé une constance rassurante des résultats entre les établissements. (5) Cette recherche a permis de mesurer les perceptions des impacts de l'enseignement médical décentralisé, elles sont majoritairement positives. Les modèles d'analyse de Morestin et du modèle EGIPSS ont structuré nos actions

**Clinical Posters**

**517 Portrait actuel des urgences rurales du Québec**

Richard Fleet\*, MD, CCFP (EM), PhD ; Gilles Dupuis, PhD ; Jean-Paul Fortin, MD, MPH; Jocelyn Gravel, MD, MSc ; Mathieu Ouimet, PhD ; Julien Poitras, MD ; France Légaré MD, CCFP, FCFP, PhD; Catherine Turgeon-Pelchat, MA

**Contexte :** Les urgences rurales québécoises ont fait l'objet d'un portrait en 2015 (Fleet et al. 2015). Dans la lignée de ces travaux et partie intégrante d'un projet de mobilisation pour l'amélioration de ces milieux (Fleet et al. 2017), une importante mise à jour concernant le portrait statistique des urgences s'imposait. **Objectifs :** Brosser un portrait statistique

détaillé et actuel des urgences rurales québécoises. **Type d'étude :** Il s'agit d'une étude descriptive. **Participants :** Les 26 urgences rurales du Québec qui correspondent à notre définition sont incluses dans l'étude. **Instrument et paramètres de l'étude :** Un questionnaire quantitatif de données sur l'urgence (centre hospitalier, visites, performance, ressources humaines, accès aux services, etc.) a été rempli par une personne-ressource dans chaque urgence. **Principaux résultats :** Les urgences rurales québécoises traitent plus de 300 000 patients / année, dont 20 % de cas urgents. Environ 3,5% des visites ont nécessité un transfert vers un centre urbain, situé la plupart du temps (60%) à plus de 150km. Quarante pour cent des urgences rurales n'ont pas accès à un TDM, 31% n'ont pas de chirurgien sur place et 38% n'ont pas d'unité de soins intensifs. Quarante-vingt-treize pour cent des médecins d'urgence des urgences rurales sont des médecins de famille ; tandis que 40% ont moins de 5 ans d'expérience. Plus de la moitié des urgences doivent avoir recours aux dépanneurs pour combler certains de leurs quarts. **Discussion :** Les urgences rurales répondent aux cas potentiellement graves qui se présentent avec des ressources limitées et du personnel peu expérimenté. Plusieurs urgences sont en situation de vulnérabilité devant la pénurie de main-d'œuvre. **Conclusion :** Dresser le portrait détaillé des urgences rurales québécoises favorise, pour les urgences, la comparaison avec des centres similaires. Cela permet aussi de brosser un portrait juste des caractéristiques et défis des milieux.

### 518 Effets de l'implantation d'une équipe mobile d'intervention psychosociale (ÉMIP)

N. Elazhary\*, MD, CMFC MU, FCMF, M. Landry, RN, PhD; E. Blais, PhD; A. Chapdelaine, MSc; S. Carrier, PhD; J. Bouchard, MD; A.M. Savard, LLD

**Objectif :** Évaluer les effets d'une équipe mobile d'intervention psychosociale pour les personnes vivant une situation de crise psychosociale. **Type d'étude :** Quasi-expérimentale **Lieu :** Ville de Sherbrooke **Paramètres de l'étude :** Une équipe composée d'un policier et d'un travailleur social a été dépêchée lors d'appels auprès de personnes vivant une situation de crise psychosociale, dans la ville de Sherbrooke, trois soirs par semaine, de 16h à 23h, durant la période de l'étude (mai 2016 à mai 2017). Plusieurs indicateurs puisés dans les dossiers policiers et hospitaliers ont été évalués respectivement à partir d'un dispositif cas-témoins ainsi que pré et post implantation de l'intervention ÉMIP. **Population cible :** Tout adulte âgé de plus de 18 ans faisant l'objet d'un appel aux services d'urgence pour une situation de crise psychosociale, pouvait faire l'objet d'une intervention de l'ÉMIP. **Résultats :** Durant la période d'évaluation de l'étude, un total de 143 interventions par l'ÉMIP furent réalisées. Après appariement avec un score de propension, une diminution du nombre de transports vers l'urgence de l'hôpital fut notée (EMT = -0,49;  $p \leq 0,01$ ) de même qu'une augmentation de la prise en charge par le milieu communautaire (EMT = 0,51;  $p \leq 0,01$ ). Des effets plus modestes furent observés sur la baisse de l'utilisation de la force (EMT = -0,06;  $p = 0,051$ ) ainsi que sur le transport vers l'hôpital contre le gré de la personne (EMT = -0,11;  $p = 0,001$ ), ceci sans augmenter le temps d'intervention (EMT = 6,07;  $p > 0,10$ ). Suite à l'intervention de l'ÉMIP, 64% des patients ne se sont pas présentés à l'urgence dans le mois suivant. **Conclusion :** L'intégration d'une équipe comme celle de l'ÉMIP auprès de personnes vivant une situation de crise, sur le territoire de la ville de Sherbrooke, a le potentiel de changer positivement la prise en charge des urgences psychosociales.

### 519 Mobile Application to Support mTBI Management in the Emergency Department

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**Objective:** To assess the form and content of information felt to be needed in the management of mild traumatic brain injury (mTBI) in the emergency department by its personnel. **Type of study:** Cross-sectional web-based survey. **Study design:** We conducted an online survey targeting emergency room personnel in 3 emergency departments in the province of Quebec. We then completed the consultation using semi-structured interviews of clinical champions identified by the advising committee. **Participants:** Emergency department physicians and nurses. **Results:** A total of 171 participants answered the survey (127 nurses and 44 doctors) and 8 participants were interviewed (6 doctors and 2 nurses). A total of 48% participants thought that a mobile application was the best vehicle for management information. 33% thought they would have less than 5 minutes to use an application and 20% said that the application would need to be accessible at all times (with or without internet access). 38% said they would use the app before the consultation and 36% would do so after the said consultation. Most (75%) preferred to use the application on a smart phone. The content that was demanded by the study population was appropriate recommendations for emergency care (68%), diagnostic criteria (67%), assessment tools (60%), decision-making algorithms (59%), and poor prognostic factors (57%). **Conclusion:** The results of the present survey and individual interviews will guide the development of a mobile application to support emergency department clinicians



in the management of mTBI. Information should be quickly available on a smart phone and include all deemed necessary information. This application is now in the testing phase.

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Resident

522 Family Physician Follow-up 30 Days Post-discharge from the Emergency Department

Kelly Lien\*, MD; Barrett Grattan; Alexandra Raynard; Jocelynn Peters; Jennifer Parr, MD, CCFP, FCFP

**Context:** Close outpatient follow-up with a specialist or family physician post-discharge from the emergency department (ED) has been shown to increase adherence to antihypertensive medications, decrease mortality in heart failure, and reduce the odds of myocardial infarction or death after ED presentation for chest pain. A Canadian study demonstrated that 21% of patients who left the ED with a new diagnosis of atrial fibrillation, heart failure, or hypertension were not seen by a physician within 30 days. There is a paucity of research investigating why this follow-up does not occur. **Objectives:** To evaluate factors associated with family physician follow-up within 30 days after discharge from a community ED.

**Design:** Retrospective chart review. **Setting:** Family health centre and a community ED. **Participants:** Adult patients (age ≥ 18) rostered to a family physician who presented to Strathroy Middlesex General Hospital ED in the past 2 years. **Main outcome measures:** Follow-up visit with a physician at the clinic within 30 days of index ED visit. **Findings:** 231 patients out of 1292 patients met inclusion criteria. 77 (33%) received discharge instructions from the ED physician to follow-up with their family doctor, and of these, 19% were CTAS 2 patients. In total, 93 of the 231 patients proceeded to have a documented clinic visit within 30 days (40%). 52% (n=48) of these were women. Receiving specific discharge instructions increased the odds of follow-up (OR 2.3, 95% CI: 1.3-4.1; P <0.05). Patients who followed up were more likely to have been seen in clinic in the last 3 months. **Conclusion:** Receiving specific discharge instructions to follow-up and having a recent appointment increased the odds that patients followed up with their family physician after discharge from the ED. More research needs to be conducted on how to improve continuity of care.

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524 Management of Patients with Morbid Obesity in Primary Care

Boris Zevin, MD, PhD, FRCSC; Nancy Dalgarno, PhD; Mary Martin, MSc; Nardhana Sivapalan, MD; Linda Chan, MPH; Robyn Houlden, MD, FRCPC; Richard Birtwhistle, MD, MSc, FCFP; Karen Smith, MD, FRCPC; Rachel Morkem, MSc; David Barber, MD, CCFP

**Context:** Five percent of Canada's population has morbid obesity; however, referrals for surgical/medical weight loss interventions are lower than anticipated. **Objective:** Explore the knowledge, experience, perceptions, and educational needs of Primary Care Providers (PCP) in managing weight loss, and patients with obesity and obesity-related comorbidities. **Design:** Survey was circulated via email, mail and fax between October 2017 and June 2018, and analyzed using descriptive and inferential statistics with SPSS. **Setting:** Southeastern Ontario, Canada. **Participants:** 591 practicing PCPs, including physicians and nurse practitioners. **Main outcome measures:** Knowledge, experience, perceptions, educational needs of PCPs in managing patients with obesity and obesity-related comorbidities. **Results:** Response rate was 17.4%. PCPs approximate that 11.6% of patients qualify for bariatric surgery (BS); however, 77.0% refer fewer than 20%. Twenty-two percent agreed they were hesitant to refer patients for BS; PCPs in practice for 0-10 years were significantly less likely to bring up referral vs. PCPs practicing for 11-20 (p=0.002), 21-30 (p=0.016) and 31+ years (p=0.013). Overall, 43.5% and 53.5% agreed they were concerned with risks associated with BS and postoperative complications. PCPs serving urban populations were more likely to note hesitation to refer due to lack of long-term data on effects of comorbidities compared to those serving rural populations (p=0.012). Females were more likely than males to note hesitation due to past negative experiences (p=0.037). Most respondents (88.5%) believed there was a need for education about BS through a continuing professional development (CPD) initiative. **Conclusions:** PCPs continue to under-refer patients for bariatric surgery. Results indicate this may be due to a PCP's lack of knowledge and experience with surgical weight loss interventions. Understanding past experiences and perceptions of PCPs informed the development of a CPD

initiative and will inform primary care post-graduate curricula in the management of patients with obesity.

**525 Overweight and Obesity Reduce Risk of Dementia Onset**

Anh Pham\*, MSc, MD; Cliff Lindeman, MSc; Neil Drummond, PhD; Don Voaklander, PhD; Adrian Wagg, MD, PhD

Dementia is a long-term, chronic condition caused by a progressing physical damage in the brain. Evidence suggests that cardiovascular disease risk factors may contribute to the onset of dementia; however, the current literature on this association is inconsistent. To our knowledge, no study that has explored the occurrence of cardiovascular risk factors prior to a diagnosis of dementia using national primary care data in North America. We used electronic medical records from the Canadian Primary Care Sentinel Surveillance Network to create a Canadian cohort to conduct a retrospective analysis to (1) determine the number of incident diagnoses of dementia in primary care among community-dwelling seniors; (2) compare the risk of developing dementia in seniors (aged 65 and older) with and without modifiable cardiovascular risk factors. The cohort identified 21,628 patients who did not have a dementia diagnosis in 2008. During ten years of follow-up, 2,520 individuals developed dementia. The number of patients with dementia or heart disease risk factors increased slightly but steadily over the ten-year follow-up period. Annually, the number of new cases of dementia increased from 0.5% in 2009 to 2.2% in 2017. Cox's proportional hazard model showed statistically significant relationships between diabetes, obesity and dementia onset ( $p < 0.001$ ), hazard ratio equals to 1.11 and 0.87, respectively. In texts, there is evidence for the statement of older adults with obesity being managed in primary care practice are less likely to develop dementia. These findings support the hypothesis that good control over chronic diseases may benefit cognitive health. Treated hypertension and dyslipidemia do not significantly associate with dementia developing.

**526 Beyond Delivery: Survivorship Care Plans to facilitate communication**

Genevieve Chaput\*, MD, CCFP (PC), MA; Gilda Lebron, RN, BScN, CHPCN(C); Tristan Williams

**Context:** Evidence promotes the provision of survivorship care plans (SCP) to both primary care providers (PCP) and cancer survivors (CS). CS, and more particularly breast cancer survivors (BCS), report suboptimal patient-doctor communication, as well as unmet information needs. **Objective:** This study's goal was to assess BCS self-reported survivorship discussions with their PCP following SCP receipt. **Design, setting, and intervention:** As part of a pilot transition clinic in Montreal, Canada, BCS were offered an educational group intervention (EOT) upon treatment completion, which included the provision of a electronically-generated SCP. A SCP was also delivered to each BCS' respective PCP. At 6-months post SCP receipt, participants were contacted by telephone to complete a brief questionnaire. Descriptive statistics were performed. **Participants:** Inclusion criteria consisted of any BCS who took part in the EOT. Participation was voluntary. **Outcome measures:** Main outcome measure consisted of BCS-reported usefulness of SCP receipt in discussions with their PCP. **Results:** 53 of 68 participants completed the questionnaire (response rate: 79%). 6 months following SCP delivery, BCS reported having had 1, 2, or 3 visits with their PCP in 36%, 34%, and 21% of cases respectively. The majority described SCP provision to their PCP as "very important" (72%). 57% stated they had a survivorship discussion with their PCP, and of these, 48% were BCS-initiated and 38% were PCP-initiated. When asked whether SCP receipt was helpful in their discussion with their PCP, 66% "strongly agreed" or "agreed". **Conclusion:** While current evidence to support SCP in terms of health-related outcomes is scarce, our findings suggest SCP provision to both BCS and PCP facilitate discussions about cancer survivor issues in the early survivorship phase following treatment completion. Further studies are warranted to elucidate how SCP may positively impact patient outcomes and PCP clinical practices.

**527 Mitigating Anxiety and Pain in IUD Insertion: A systematic review**

Laura Nguyen; Larkin Lamarche, PhD; Robin Lennox; MD; Dee Mangin\*, MBChB, DPH, FRNZCGP

**Context:** One barrier to the use of intrauterine devices (IUDs) as a contraceptive method is the experience of anxiety and pain during the insertion procedure. Previous reviews have focused on pharmacological methods used to relieve pain during IUD insertion, however few similar reviews have examined non-pharmacological methods or strategies to reduce anxiety. **Objective:** To identify and categorize strategies for reducing patient anxiety and pain with respect to IUD insertion. In particular, we wanted to identify non-pharmacological interventions and studies that included anxiety as a research outcome. **Design:** A literature search of all English language studies, between inception to the week of July 29th, 2018, from the following online databases: Embase, Cochrane Library, and PubMed. **Main outcome measures:** The methods in which patient anxiety and pain are assessed, and the types and efficacy of interventions for managing pain and anxiety during IUD insertion. **Results:** Our search revealed 426 studies after removal of duplicates, 35 of which fulfilled the inclusion/exclusion criteria. We identified 29 studies assessing pharmacological interventions for the management of pain, and 6 studies assessing non-pharmacological interventions. Only 1 study included a measurement of patient anxiety

during the procedure as an outcome measure. Our findings suggest that only some formulations of lidocaine, tramadol, and naproxen have had a clinically significant effect on IUD insertion-related pain in specific groups. **Conclusion:** Research on non-pharmacological interventions for the management of anxiety and pain during IUD insertion is lacking. Furthermore, there is weak or conflicting evidence for the studied pharmacological interventions, and very little evidence for strategies to manage anxiety during the IUD insertion procedure. Further high-quality research comparing pharmacological and non-pharmacological strategies is warranted, as well as examinations of different strategies for anxiety management.

### First Five Years

#### 528 A Tool to Predict Cesarean Delivery in Rural Remote Populations

Kheira Jolin-Dahel, MSc, MD, CCFP; Kristine Kroeker, MSc; Kaitlyn Kaltenberger; Mariam Ahmed Helga Hamilton; Alan Katz, MBChB, MSc, CCFP, FCFP

**Context:** A decreasing number of rural communities offer intrapartum care due to the potential need for surgical intervention. There is overwhelming evidence of adverse effects for women if they must travel for obstetrical care. A clinical decision tool that helps predict the likelihood of an uncomplicated vaginal delivery would help promote the safety of intrapartum care without onsite access to cesarean sections, and would help decrease provider fear of adverse outcome associated with offering intrapartum care without onsite cesarean capabilities. **Objective:** 1) Create a clinical decision tool to predict the outcome of birth in women from rural and remote communities, and 2) create an application (“app”) for mobile phones to predict the risk of cesarean delivery based on the patient specific variables. **Design:** A retrospective chart audit of all obstetrical singleton vertex deliveries from January 01/05 to December 31/17 from three rural centers. **Outcomes:** Rate of vaginal birth versus the estimated rate of vaginal birth based on the score generated by the clinical decision tool. **Results:** A total of 3183 charts were eligible for review. Various algorithms were tested. The area under the curve (AUC) was used to assess the tool’s performance in terms of predictability of birth outcomes. The selected algorithm has a positive predictive value of 92% when it predicts an 80% likelihood of vaginal delivery in low risk patients. The algorithm is based on 11 patient characteristics. **Conclusion:** Early prototype of this clinical decision tool is encouraging. Wide scale validation will be done in the future to help support implementation of local low risk intrapartum services in rural and remote communities. The creation of an app will make this tool more widely available, timely and easy to use for all health care providers with very minimal costs to implement and spread.

#### 529 Providers’ Views on Barriers/Facilitators of Bacterial STI Testing Among gbMSM

Charlie B. Guiang\*, MD, CCFP; Ann N. Burchell, PhD; Jayoti Rana; Rita Shahin, MD, MHSc, FRCPC; Jason Brunetta, MD, CCFP; Leo Miterni; Darrell H.S. Tan, MD, FRCPC, PhD; Jean Bacon, PhD; Mark Gilbert, MD, MHSc, FRCPC; Dionne Gesink, PhD; Ramandip Grewal, MPH, PhD; Carmen Logie, MSW, PhD; Anna Yeung, MPH, PhD; Ryan Lisk

Bacterial Sexually Transmitted Infection (STI) testing is a necessary component of sexual health care for gay or bisexual men-who-have-sex-with-men (gbMSM) living with and at risk for HIV. Guidelines recommend testing at least once a year or more often if at ongoing risk. As part of a larger mixed methods study with the overall goal to prioritize new STI testing interventions, our aim was to determine barriers and facilitators to offering bacterial STI testing to gbMSM according to healthcare providers in Toronto, using a survey method. **Methods:** We circulated invitations for an online, anonymous survey to an estimated 172 providers in Toronto. Providers were eligible if they provided care for  $\geq 1$  gbMSM per week and were involved in the decision-making process in providing a STI test (e.g., taking sexual histories, ordering tests). **Results:** Of 93 respondents, 68% worked in primary care, 32% worked in public health/sexual health clinics, 70% were physicians and 30% were nurses or other allied health professionals. Most (67%) saw between 1-10 MSM clients per week. Among respondents working in primary care (n=63), barriers to offering testing “sometimes” or more often were: insufficient consultation time (64%), difficulty introducing testing during unrelated consultations (52%), forgetting to offer testing (46%), patient reporting no sexual activity (30%) and patient refusal (25%). Among all respondents, preferred practice changes to improve testing were: express testing/fast-track testing services (89%), provider alerts when patients are due for testing(87%), self-collected specimen sampling by patients (84%), standing orders for tests (79%), and nurse-led STI testing (78%). Primary care providers were more in favour of provider alerts whereas providers at sexual health clinics favoured patient reminders. **Conclusion:** Providers were in favour of initiatives to simplify and expedite bacterial STI testing (including self-collection samples), prompts/reminders for testing, and expanding testing delivery to other healthcare professionals.

Medical Student

**530 Systematic Assessment of Opioid-related Advertisements Aimed at Canadian Family Physicians**

Abirami Kirubarajan\*; Tiffany Got; Nav Persuad, MD, MSc; Braden O'Neill, MD, DPhil

**Introduction:** The current opioid epidemic has been influenced by immense marketing campaigns produced by pharmaceutical companies. These campaigns have included advertisements aimed at family physicians, which may have led to overprescription. For this reason, the Government of Canada has recently announced a “notice of intent” to restrict the marketing of opioid-related medications for late 2019. However, according to literature searches, no previous study has systematically examined opioid-related advertisements or their claims. **Objective:** To assess the volume, claims and level of evidence of advertisements for opioids published in Canadian medical journals aimed at family physicians. **Methods:** Two issues per year from 1996-2016 of the Canadian Medical Association Journal and Canadian Family Physician were hand-searched for opioid advertisements. The volume of advertisements, nature of the claims made, and cited evidence were collected by two independent reviewers. The referenced evidence was assessed using the Oxford Centre for Evidence-Based Medicine Levels of Evidence rubric. **Results:** Of the 82 issues searched across both journals, opioid-related advertisements comprised 26 of the 1229 pharmaceutical advertisements. 12/26 advertisements did not mention the addictive potential of opioids, with 20/27 not mentioning the possibility of death. The tamper potential of certain medications was mentioned in 16/26 advertisements. Positive claims included strength of pain relief (15/26), fast-acting ability (7/26), patient preference (2/26), and reduced side effects (6/16). A total of 15 studies were cited, of which a majority (14/15) were Level 2 evidence. Upon examination of conflicts of interest, 100% (15/15) of the referenced studies were funded by a pharmaceutical organization or had pharmaceutical company employees as authors. **Conclusions:** A variety of claims were published in medical journals through opioid-related advertisements, which cite industry-influenced studies. Many advertisements did not mention key negative information about opioids, which may have influenced family physician prescribing.

**531 Safer Prescriptions for Complex Older Patients: SPIDER’s preliminary findings – Work in progress**

Michelle Greiver, MD, MSc, CCFP, FCFP; Patricia O’Brien, RN, MScCH; Christina Southey, MSc; Jianmin Wang, MBBS, BHS

**Objective:** To present preliminary findings of the feasibility study of a QI-research collaboration, Structured Process Informed by Data, Evidence and Research (SPIDER) aiming at improving medication appropriateness for complex older patients. **Design:** Single-arm mixed methods feasibility study followed by a 2-arm (Intervention vs Usual Care) pragmatic cluster randomized controlled trial. **Setting:** Primary care practices in seven Practice-Based Research Networks across Canada. **Participants:** 1) Family physician led multidisciplinary practice teams; and 2) Active older patients 65+ years taking 10+ different medications identified by participating physicians’ EMR. **Intervention:** Three key elements: 1) Participation in QI Learning Collaboratives; 2) Practice coaching/facilitation; and 3) Validated EMR data for feedback. **Main outcome measures:** The reduction of potentially inappropriate prescriptions (PIPs) measured using EMR data. **Results:** Thirty-three physicians from ten family health teams/practices and one nurse practitioner and three family physicians from a community health centre in Toronto were recruited. All teams have accessed coaching support, reflecting high engagement. Teams were given flexibility in developing deprescription strategies and action plans that fit their local context. Review and validation of patient cohort identified by the EMR was time-consuming for some, depending on the size of the cohort and data entry patterns for each practice. Having an existing internal support team including data specialists and QI experts enabled teams to proceed more quickly. Engaging pharmacists in the medication review and deprescription process allowed for the sharing of their specific expertise thereby alleviating workload for physicians. **Conclusions:** SPIDER appears to be feasible and has the potential to enhance safer prescription for complex older patients. A flexible and contextually adaptable design enabled increased uptake of such approach. Having access to embedded QI and data support and collaborating with local pharmacists may enhance the sustainability of the approach.

Medical Student

**532 Patient Medication Goals and Priorities in Deprescribing Plans**

Nikki Shah\*; Larkin Lamarche, PhD, MA; Abbas Ali, MBChBBAO; Jessica Langevin, MPH; Jenna Parascandalo, MPH; Steve Dragos, MSc; Sayem Borhan, MSc; Cathy Ridson, MD, DMan, CCFP, FCFP; Johanna Trimble; Dee Mangin, MBChB, DPH, FRNZCGP

**Context:** Polypharmacy, defined as taking ≥5 long-term medications, is common among older adults yet often associated with adverse drug events, medication nonadherence, cognitive impairment, and increased healthcare costs. While deprescribing is a crucial next step, few explicit tools exist to determine patient goals and priorities to help with treatment



decision-making in multimorbidity and polypharmacy contexts. **Objective:** To describe patient medication goals and preferences, and assess the extent to which these were mirrored in the deprescribing plan in The Team Approach to Polypharmacy Evaluation and Reduction (TAPER) model. **Design:** This descriptive analysis examines data from a 1:1 single blind randomized controlled feasibility trial. **Setting:** McMaster Family Health Team, Hamilton, ON, Canada. **Participants:** 38 patients (mean age 79, 53% female) were followed over six months. **Inclusion criteria:** age  $\geq 70$ , using  $\geq 5$  long-term prescribed medications, willing to try discontinuation. **Exclusion criteria:** Recent comprehensive medication review, inadequate English or cognitive skills for surveys, or terminal illness or circumstances precluding study period. **Intervention:** Patients were randomly allocated 1:1 to the control group, or the TAPER intervention group: sequential linked consultations with a pharmacist and physician integrated by TaperMD, an online tool to flag potentially inappropriate medications and record patient goals and priorities. **Main outcome measures:** Types and frequencies of patient goals and priorities. **Findings:** 55 functional goals and 66 symptom priorities were reported, the most frequent in each category being walking improvement (n=18), and hypertension control (n=14), respectively. Of 100 medication alterations (safer medication, dose reduction, or stopped), 22 were mapped directly to patient goals. Common medication changes mapping to patient goals related to medications for diabetes (n=8), hypertension (n=5) and sleep (n=5). **Conclusion:** Patients do hold specific medication goals for both daily function and symptom management. When patients are asked to record these, it appears that comprehensive team – based deprescribing plans reflect them.

**533 Developing Interprofessional Dementia Care Teams Through Community Partnerships: Lessons learned**  
Linda Lee\*, MD, MCIsc(FM), CCFP (COE), FCFP; Loretta M. Hillier, MA; Susie Gregg, MSc, OT Reg (Ont)

**Context:** The Primary Care Collaborative Memory Clinic (PCCMC) model of dementia care involves developing family physician-led teams of interprofessional health care providers (HCPs). Implemented in 110 locations, primarily in family practices with team-based HCPs, a growing number of PCCMCs are now being developed in family practice settings without integrated HCPs through community partnerships. **Objective:** To describe key lessons learned in developing interprofessional PCCMC teams in family practice settings. **Setting:** Ontario family practice settings. **Design:** Mixed methods (questionnaires, interviews). **Participants:** Interprofessional team members (133 across 18 PCCMCs). **Intervention:** Partnerships with community organizations facilitated the development of multidisciplinary teams needed to implement the PCCMC model in practice settings without interprofessional HCPs. **Main outcome measures:** Identification of factors that facilitate and challenge the development of PCCMCs. **Results:** 71 questionnaires were completed (18 physicians, 24 nurses, 10 Alzheimer Society representatives, 10 pharmacists, 5 homecare representatives, 2 occupational therapists, 2 physician assistants); 40 interviews were completed with a subsample of respondents. Most frequently identified facilitating factors were relevance of the standardized training program to clinical practice (70%), interest/support from all team members (68%), and access to resource materials (54%). Challenges were lack of sufficient resources (staff, funding, space; 42%), competing priorities for resources/time (32%) and insufficient time to apply learned skills (14%). These factors are consistent with those identified in the interviews; other identified facilitating factors included corporate/ management and interagency support, community partnerships, and designated clinic coordinators. Challenges related to lack of sustainable funding and infrastructure support. **Conclusion:** There are facilitating factors and challenges to developing PCCMC teams through community partnerships; these are similar to those identified in studies of PCCMCs developed in practices resourced with integrated interprofessional HCPs.

**534 Enabling Advance Care Planning Discussions for Persons with Dementia**  
Linda Lee\*, MD, MCIsc(FM), CCFP (COE), FCFP; Stephanie K. Lu, PhD; Jennifer Janzen, RN; Loretta M. Hillier, MA

**Context:** To meet the urgent need for effective and timely Advance Care Planning (ACP) discussions for persons living with dementia (PLWD), a novel ACP Framework was developed to standardize ACP discussions in primary care memory clinics and adult day programs. **Objective:** To test the ACP Framework in multiple settings. **Setting:** Primary Care Collaborative Memory Clinics (PCCMCs) and an Alzheimer’s Adult Day Program (ADP) in Ontario. **Design:** Mixed methods (questionnaires, interviews). **Participants:** Clinicians, PLWD, family caregivers. **Intervention:** Seven PCCMCs and one ADP tested the ACP Framework, involving a series of discussions guided by clinicians to enable a shared understanding of personal goals and preferences for future healthcare decisions. **Main outcomes:** Rating scales (5-point: not at all – extremely) were used to rate satisfaction with the ACP Framework. Interviews gathered perceptions of the framework. **Results:** 41 questionnaires were completed (13 PLWD, 16 caregivers, 12 clinicians); 16 interviews were completed (1 PLWD, 7 caregivers, 8 clinicians). ACP discussions were well received by PLWD and caregivers; mean satisfaction ratings reflected that they were “very” satisfied with the way in which their opinions were included (4.0/5.0) and with talking about future health care (3.9/5.0). Interviews revealed that caregivers felt better prepared for future decisions. Patients were put at ease, knowing that their wishes were expressed and understood. In contrast clinician’s mean satisfaction ratings

(1.9-2.4/5) reflected that they were minimally satisfied with the ease of use and feasibility of the framework. Interviews revealed that while clinicians value ACP, lack of time and resources are a barrier and more training is needed. Suggestions for improvements were identified (shorten questions, include examples, scenarios). **Conclusion:** PLWD and caregivers value the opportunity for ACP, and although clinicians identified some concerns with the tool, they acknowledged the value and importance of ACP. Continuing efforts to refine ACP discussion processes are justified.

535 CANCELLED

## Resident

### 536 Increasing Advance Care Planning For Patients With Heart Failure

Vivian Xia, MD\*; Sherry Liu, MD; Camille Lemieux, MD, CCFP; Warren Lewin, MD, CCFP

**Context:** The benefits of Advance Care Planning (ACP) are well documented for patients with life-limiting illnesses, including Congestive Heart Failure (CHF). ACP will refer to documentation of Power of Attorney (POA) and Substitute Decision Maker (SDM). Currently, only 0.5% of CHF patients at the Toronto Western Family Health Team (TWFHT) have documented ACP. This may leave families and healthcare providers ill-equipped to deal with unexpected situations, especially given that these patients can have an annual mortality rate of up to 50%. It is unclear whether the lack of documentation reflects a paucity of ACP discussions or inconsistent documentation of these discussions in the electronic medical record (EMR). **Objective:** To increase the documentation of POA/SDM of patients over age 60 with CHF to 30% over 3 months. **Design:** Quality improvement project. **Setting:** Urban Academic FHT. **Participants:** Eligibility criteria: patients over age 60 with CHF in the EMR, totaling 166 patients. **Intervention:** Three intervention cycles were implemented. First, patients were prompted to initiate ACP discussions with their family doctor through a mailed or emailed letter. Concurrently, TWFHT staff received emails teaching them how to enter POA/SDM into the EMR. The final intervention targeted family doctors through an EMR message prior to their patient's next appointment reminding them to discuss ACP. **Results:** ACP documentation increased from 0.5% to 14% over 3 months. Of the 23 new documentations, 12 were previously discussed but improperly documented and thus difficult to find in the EMR. 14% of family doctors used the Speak Up Campaign handout as a patient-centred resource. **Conclusion:** Small-scale targeted interventions led to an increase in primary care clinic ACP documentation for patients living with CHF. 1. Physician-targeted interventions were more successful than patient-targeted interventions. 2. EMR training led to an increase in proper SDM/POA documentations. 3. Handouts were time-efficient tools used to open conversations about ACP.

### 537 Responding to Requests for Hastened Death

Tejal Patel, MD, CCFP, MSc; Kayonne Christy, BSc; Lawrence Grierson, PhD; Joshua Shadd, MD, MCISc, CCFP; Alexandra Farag, MD, CCFP; Meredith Vanstone, PhD

**Background:** Medical Assistance in Dying (MAiD) allows health care providers to administer or prescribe medication for the purpose of ending a patient's life. With the 2016 legalization of MAiD in Canada, physicians must be prepared to respond to these requests in a way that provides high quality care for patients and their families. Unfortunately, many clinicians feel inadequately trained and prepared to do so. We aimed to understand how physicians and nurses in other jurisdictions that permit MAiD make sense of, and respond to, patients' expressed wishes for hastened death. **Methods:** A systematic review and qualitative meta-synthesis of the empirical qualitative literature relevant to the research question was conducted. This included 21 studies describing perspectives of physicians and nurses in five jurisdictions in which MAiD is legal. **Results:** The analysis identified that sensitive responses to a patient's hastened death request require providers to engage in 'sense making' across 7 distinct domains: the patient-provider relationship, their professional roles and identities as providers, their emotional/psychological responses to the request, their personal values/beliefs, patient autonomy, the actual request for hastened death, and the regulations pertaining to MAiD in their jurisdictions. **Conclusion:** We propose that clinicians engage in a reflective process that considers all 7 of these domains in forming a sensitive and informed response to a patient's request for hastened death. These findings can be instructive for the development of educational material to foster compassionate care for those requesting MAiD and their families.

First Five Years

**538 Utilisation de l'outil d'auto-évaluation par les GMF-U - Travail en cours.**

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**Contexte :** Depuis une vingtaine d'années, plusieurs initiatives gouvernementales se sont succédées pour améliorer la qualité des soins primaires. La création du modèle du Centre de Médecine de Famille par le CMFC a été initiée pour répondre à des valeurs d'équité, de justice et d'accès aux soins pour tous. **Objectifs :** Évaluer la validité de l'outil d'auto-évaluation du CMFC, son applicabilité dans les GMF-U du Québec, son utilité pour améliorer la pratique des professionnels et les aider à aligner leur pratique selon les objectifs définis par le CMF. **Type d'étude :** Descriptive, exploratoire, mixte. Janvier 2018 à juillet 2019. **Lieux :** 4 GMF-U. **Participants :** tous les professionnels exerçant en GMF-U **Intervention :** 1ère phase (quantitative) : 1) Compléter l'outil d'auto-évaluation et évaluer la validité de l'outil. 2) Analyse des résultats individuel puis compilation des résultats par le CMFC pour obtenir un score d'équipe. 3) Compte rendu des résultats auprès des équipes. 2ème phase (qualitative, ateliers de pratique réflexive) : 1) Définition d'un groupe de projet local pour chaque GMF-U avec l'agent de qualité. 2) 1er atelier de pratique réflexive. 3) Discussion des résultats, identification de 1 ou 2 piliers prioritaires. 4) Mise en place de solutions pour améliorer les résultats du groupe. 2ème phase (qualitative, ateliers de pratique réflexive), 6 mois plus tard : 1) Discussion des changements apportés dans l'équipe. 2) Discussion de l'appropriation de l'outil. **Paramètres :** 1) résultat de l'outil par équipe pour les 4 milieux, 2) mesure de validité de l'outil par équipe, 3) évaluations des ateliers de pratique réflexive selon des études de cas. **Conclusion :** Modéliser une équipe visant à améliorer la qualité des soins primaires, l'Accompagner dans l'assimilation d'un nouvel outil et implanter une culture d'amélioration de la qualité dans les milieux œuvrant en soins de première ligne.

**539 Scaling an Addiction-Social Stabilization Intervention Linking to Primary Care**

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**Context:** Hospitals provide a 24/7 point of care for inner city patients experiencing barriers to traditional primary care. Unmet chronic social and health needs of these patients are being met on an interim basis by an innovative hospital-embedded, team-based intervention offering warm hand-off to a primary care home. Intervention scale up is planned in a new urban setting. **Objectives:** to use implementation science frameworks to systematically assess barriers and facilitators to scaling a hospital-embedded, inner city, team-based intervention in a new urban setting; to apply this knowledge in proposing evidence-based, theory driven implementation strategies. **Design:** Evaluation of the implementation context using in-depth qualitative interviews and framework analysis based on: the Consolidated Framework for Implementation Research (CFIR) and the Theoretical Domains Framework (TDF). CFIR emphasizes how contextual and systems features affect implementation, complemented by TDF which relates to individual and group level behavioural change. **Setting:** A large urban centre hospital serving a diverse inner city community. **Participants:** A purposive sample of frontline and administrative staff from the hospital and stakeholders in community settings (n=16). **Findings:** Participants suggested considerable inner context barriers to engaging inner city patients with chronic social and health needs in hospital. Such 'cultural' characteristics, in combination with resource limitations, challenge intervention implementation. While community agencies offer specialized care to this population, participants reported limited connectivity between hospital and these resources. **Conclusion:** This study identified tension between the needs of patients with complex needs and the culture and resourcing of acute care environments. Identifying and framing these tensions using CFIR and TDF allowed for identification of potential evidence-based, theory-driven responses. The identified barriers have been mapped to mitigating strategies and presented for stakeholder consideration. These potential implementation strategies include: building a coalition between community service providers and hospital staff, conducting needs assessments, and identifying/supporting champions to promote culture change.

**540 Do Low Education/Income Parents Perceive Online Information Differently? A survey**

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**Context:** Online consumer health information supports the family physicians' work, but it is unclear whether this helps families of low education/income. Typically, information is seen as more beneficial to people of high education/income.

Specifically, little is known about how people are using information targeted to a specific audience, and what happens as a result of this use. **Objective:** Uncover outcomes of online parenting information. **Design:** Online survey. **Setting/ participants:** We designed a participatory research in partnership with 'Naitre & grandir' (N&G), which is a magazine, website and newsletter offering expert-based parenting information for all (including persons with a low literacy level) on child development, education and wellbeing (0-8 years old). **Intervention:** N&G weekly newsletter tailored to children's age. **Outcome measurement:** For each newsletter, the parental perception regarding outcomes of specific N&G web pages has been instantly gathered using a content validated Information Assessment Method (IAM) questionnaire from January 1, 2016 to December 31, 2018. Pearson's chi-squared test was used to estimate the differences between parents combining a low level of income and a low level of education vs. other parents. **Results:** 2140 parents submitted 2806 IAM responses reporting an intention to use N&G information for them or their children (1.3/parent; range:1-20) on 719 N&G web pages (3.9/page; range:1-29). There were no statistically significant difference between the two groups regarding expected health/wellbeing outcomes of N&G information such as parental worries, problem prevention, problem management, information exchange (e.g., with professionals), and confidence in decision-making. **Conclusion:** This is the first study assessing information outcomes from a parental viewpoint, and these results need to be supported by future research, e.g., multilevel model. The present results may nevertheless encourage all web editors to provide trustworthy online information for all (including people with low literacy level) as this may equally benefit all information users.

**541 From Disease To Ease: Building capacity with coaching & mindfulness**

Rahul Gupta\*, MD, CCFP; Robert Woollard, MD, CCFP; Karen Gelb; Marilyn Pederson; Maureen Mayhew, MD, MPH, CCFP

**Objective:** Research identifies health coaching and mindfulness as modalities that build patient capacity through modulating autonomic nervous system dysregulation. Sustainable ways of integrating them into publicly-funded models of care have yet to be widely adopted, leaving too many without access to the care they need. Since 2014, in Gibsons, physician-led health coaching services and mindfulness medical group visits have been introduced as a way to complement primary care efforts. This study, funded by the Michael Smith Foundation for Health Research, explored how and why these initiatives work, building capacity in both patients and care providers. **Design:** This project used a qualitative participant-engaged design, with purposive sampling for recruitment and thematic analysis of transcribed stakeholder inputs. The research question was explored in an initial stakeholder engagement day in September 2018; graphic facilitation supported the in situ distillation of themes and advancement of the conversation. Post-workshop videoconferences occurred at 6 weeks and 4 months for further patient engagement and member checking throughout the thematic analysis. **Setting:** Sunshine Coast, BC. Local meeting room and online videoconferencing for follow-up meetings. **Participants:** 37 stakeholders included 18 patients living with chronic conditions who had successfully participated in one or both local programs, referring physicians, local healthcare managers, and researchers. **Results:** 6 key themes emerged highlighting the importance of access and delivery of the programs through the medical system, with trained GP-facilitators enabling the safe connections necessary for learning practical tools that foster hope and self-efficacy, both in individual and group environments. Much interest in further researching mechanisms for broader implementation also arose. **Conclusion:** Physician-led health coaching and mindfulness interventions provide a credible way to enable capacity through the interplay of affordability, relational safety, and focused empowerment. With this refined understanding, program implementation requirements can be better explored, with particular focus on transferability to other rural communities.

**542 Health Navigation for Patients with Chronic Disease: A pilot study**

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**Objective:** Patients with multiple chronic conditions face challenges in accessing needed services and following primary care plans. Community Health Navigation may help to optimize primary care delivery. The purpose of this pilot study was to determine the acceptability and feasibility of a community health navigator intervention for patients with complex chronic disease. **Design:** Observational before and after pre-post study. **Setting:** Two primary care clinics in a primary care network in Calgary, Canada. **Participants:** Patients were ≥ 18 years of age with two or more of: poorly controlled diabetes, chronic kidney disease, ischemic heart disease, congestive heart failure, or chronic obstructive pulmonary disease/asthma. Patients were excluded if they had moderate to severe dementia, were unable to provide informed consent, resided in a nursing home, or at the discretion of the primary care physician. **Intervention:** A community health navigator (CHN) provided individual needs assessments and targeted interventions to help patients overcome barriers to care. **Main**



**outcome measure:** We assessed implementation metrics, patient-reported outcome and experience measures, acute care use and patient, provider and CHN experience. **Results:** Of 21 enrolled participants, the mean age was 61.3, over half had an annual household income below \$30,000, and 68.2% were born outside of Canada. The most common chronic conditions were hypertension (77%), diabetes (59%) and back problems (55%). The average number of conditions was 5.4 and all patients had 3 or more conditions. Effects on patient-reported measures, disease-specific outcomes and acute care use will be available in fall 2019. **Conclusions:** This pilot study demonstrates feasibility in implementing and evaluating a community health navigation program for patients with multiple chronic diseases in primary care. These findings have informed a large cluster randomized trial of a similar program in primary care.

**543 A User-centered EMR Tool for Querying and Comparison Among Clinicians**

Sabrina Wong\*, RN, PhD; Abdulai Abdul-Fatawu, MSN; Billy Augustine, BLIS; Hansieh Shakeri, BSc; Natalya LeBedeve, BLIS

**Context:** The use of electronic medical records (EMR) in primary care is widespread across Canada. Yet, available human-computer interaction design patterns tend to be specific to certain types of tasks such as website navigation. They also are typically generic and do not address intricacies of a specific domain. It is challenging to find well-defined, evidence-based user interface patterns that pertain to health information systems and specifically for primary care. While there are now a multitude of EMR “dashboards” providing information to users, most in primary care are only somewhat useful. **Objective:** (1) Design and evaluate a tool for family physicians and nurse practitioners that would make the electronic medical record data retrieval process efficient and effective; (2) allow users compare their practices with the wider network for quality improvement. We based our project on the CPCSSN-DPT tool. **Design:** Lead user interviews and direct observation. **Participants:** Family physicians and nurse practitioners with CPCSSN-DPT or other EMR experience across British Columbia and Alberta. **Intervention:** Development and testing of a new prototype for using the CPCSSN data presentation tool. **Main outcome measures:** (1) ease of query, (2) customizability, (3) comparison with other clinicians, practices and jurisdictions. **Results/conclusions:** Querying and comparison were described as easy and comparison feature was valuable to clinicians’ processes. Clinicians were interested in looking at trends within their own practices, and comparing practices with various groups (clinic, region, province). Customization of pages was appreciated. Editable reports promoted ownership and control. EMR use for quality improvement should allow for customization of overview pages and dashboards, allow for comparison between practices, clinics and regions. Queries from a predetermined customizable reports should include visible signifiers for supported interaction.

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**545 Innovative Approach Supporting Delivery of Primary Care Through Community Paramedicine**

Nancy Kotani\*, MSW; John M. Tallon, MD, MSc, FRCPC; Joshua Greggain, MD, CCFP

**Objective:** To evaluate the Community Paramedicine (CP) program’s effectiveness in delivery of primary care, prevention and health promotion services, consistent with Quadruple Aim, to support bridging of health care gaps in rural and remote communities. **Design:** An evaluation framework, including formative and summative components, utilized a mixed method data collection process with both quantitative and qualitative data collected from patients and stakeholders through surveys, focus groups, sharing circles, key informant interviews and standardized patient reported outcome measure tool (EQ5D5L). **Setting:** Community paramedics deliver in-home patient care in non-urgent settings across rural and remote communities in BC. **Participants:** Primarily intended to support seniors living with chronic diseases such as heart failure, diabetes, COPD or those at risk of falls; 1597 patients have been enrolled in the program of which 82% are 65 years or older. **Findings:** Results indicate the program succeeded in improving health experience of patients, increasing access to primary care services and providing education to support patients’ health literacy. 83 percent of respondents to a patient experience survey feel more confident about their ability to take care of their health. The EQ-5D-5L survey participants results indicate 52% of patients have maintained or improved their health status. By working collaboratively with local primary and community health teams, the CP program has increased local community capacity to address health challenges. **Conclusion:** Community paramedicine has helped establish an innovative type of health service delivery in the patient homes. This unique and much needed patient-centred care service supports health literacy and system navigation for patients. Participants in key informant interviews stated the introduction of this program has advanced the integrated, team based approach to primary care. The program gives communities trusted, on-the-ground trailblazing health professionals who work closely with established health teams to make a significant difference in the well-being of residents.

Resident

**546 Physician Perspectives on Novel Implementation of the Patient-Centred Medical Home**

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**Context:** Mississauga's population has rapidly evolving cultural and social determinant of health-related needs. In response, the Mississauga Integrated Care Centre (MICC) was funded by the provincial government as an expansion of inter-disciplinary primary care teams. It is the first pilot of the Patient Centred Medical Home (PCMH) to deliver integrated primary care in two priority regions, forming an epicenter of care with providers both on and off site. **Objective:** To determine physician perspectives on programming needs, and input into the development of the MICC. **Methodology:** This qualitative study consisted of two stages: i) 15 minute anonymous survey sent electronically to approximately 390 physicians practicing in the MICC's catchment area and ii) two independent 1 hour focus groups led by an independent facilitator following completion of the survey. Thematic analysis by an independent party was conducted. **Results:** Sixty four physicians completed the survey. In the survey, the physicians identified mental health, chronic pain, senior services, child/youth services and obesity as being the greatest areas of service need for the MICC. Approximately 65% of physicians felt that the MICC would contribute positively to their work life. The majority of physicians surveyed preferred to be involved in the MICC as affiliate physicians and maintain their home offices. Potential barriers to using the MICC's services included location, time commitment, paperwork/bureaucracy, and ease of referrals. **Conclusions/discussion:** Family physicians in these catchment areas are supportive of the MICC's implementation of the Patient-Centred Medical Home, and can identify service gaps and solutions they anticipate will be fulfilled by the MICC. The MICC will be a node for primary care organization that will include learning, practice facilitation, community building, team-based care, back office support, IT and quality improvement centralization. It will also coordinate the primary care health system into community care networks, and cultivate a rapid learning environment.

Work in Progress

**547 How do CACs Shape Family Medicine in Canada? Work in progress**

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**Context:** The College of Family Physicians of Canada (CFPC) has recently expanded their Certificates of Added Competence (CAC) program to include Care of the Elderly (COE), Family Practice Anesthesia (FPA), Palliative Care (PC), and Sports and Exercise Medicine (SEM) in addition to Emergency Medicine (EM). The current study explores the impact of these four CACs on the provision of comprehensive care in Canada, considering how the existence of CAC holders in particular practice cases impacts the scope of care provided by family physicians to patients of that practice. **Objective:** This policy-responsive research will inform the development of a fundamental way to profile CAC holders, refine our understanding of the impact and influence of the CAC program on CFPC members and on the provision and outcomes of comprehensive, community-adaptive care. **Design:** We use qualitative case study methodology to investigate the way that CACs impact the the organization and delivery of family medicine across Canada. Data collection will include qualitative interviews, within-case focus groups, and review of relevant documentation within six separate cases. A descriptive approach to qualitative analysis will be employed within and across cases. **Setting:** Six cases were chosen to represent diverse practice arrangements and CAC groups across Canada. Cases are conceptualized as groups of physicians who work in an inter-connected community. **Participants:** Participants include family physicians with and without CAC designations, Family Medicine residents, PGY3 fellows, and health system leaders. **Results:** This project is a work in progress. Data collection and analysis will be complete by September 2019. **Conclusion:** Through this research, we seek to provide an improved understanding of the impact of CACs and to give advice to the CFPC about whether, and how, to implement additional CACs in service of providing access to co-ordinated and community-adaptive comprehensive care.

**548 Building Education Scholarship Capacity in Family Medicine - Work in progress**

Betty H. Chen\* MD; Oshan Fernando, PhD, Ruth Heisey, MD, CCFP, FCFP, Risa Freeman, MD, CFPC, FCFP

**Context:** In the family medicine setting, many teachers are trained primarily as clinicians, with variable additional training in education. Further, many clinician teachers lack the time, confidence or skills required to engage in education scholarship. Introducing a pilot project with a locally embedded education scientist to enhance and support education

scholarship is a novel approach to bring research skills and expertise into this environment. **Objectives:** 1) Explore the experience of clinician teachers regarding both the impact of the pilot project and the types of scholarly activities that arose from it. 2) Triangulate these described activities with site-specific activity reported by faculty in the Department of Family and Community Medicine (DFCM) annual survey. **Design:** In-depth semi-structured 1:1 telephone interviews of 45 minutes duration acquired information about clinician teachers, their views of the impact of the pilot project and their experiences of interacting and collaborating with the education scientist. Recorded transcripts are being analyzed using a constant comparative analysis method. The data is being coded and analyzed for emergent and descriptive themes by at least two members of the study team. **Setting/participants:** Clinician teachers (n=6 to date of population 35) recruited in person and by email from the family medicine unit where the pilot project was introduced. **Outcome measures:** The qualitative data collected from this study will help identify enablers and barriers to embedding an education scientist at an academic teaching site. **Findings/conclusion:** Preliminary findings suggest clinician teachers at this site view factors such as career stage, mentorship, and local interactions and supports as important to education scholarship. This will inform the development of strategies relevant to clinician teachers in the family medicine setting in building education scholarship capacity, and the feasibility of expanding this model to other teaching sites within the DFCM at the University of Toronto.

**549 Understanding Clinician-Teachers' Perceptions of Their Academic Roles - Work in progress**

Betty H. Chen\*, MD, CCFP; Joyce Nyhof-Young, PhD; Oshan Fernando, PhD; Ruth Heisey, MD, CCFP, FCFP; Risa Freeman, MD, CCFP, FCFP

**Context:** Several studies have defined key roles and competencies of medical education faculty, also known as clinician-teachers, clinician-educators and medical education consultants. Three important activities: teaching, scholarly teaching, and education scholarship can define clinician-teachers' professional continuum. An embedded education scientist was introduced as part of a pilot initiative in an academic family medicine teaching site to support advancement along this continuum. **Objectives:** 1) How do academic clinician-teachers perceive their professional roles and competencies? 2) What support do they need for scholarly execution of those roles and competencies? 3) What are their recommendations to support and build education scholarship capacity at their teaching site? **Design:** Semi-structured, audio-recorded, 45-minute telephone interviews inquired about clinician-teachers' self-assessments of their academic roles. Transcripts are being analyzed by two independent reviewers using constant comparative descriptive analysis method and in collaboration with the study team. The data is being coded and analyzed for emergent and descriptive themes. **Setting/participants:** Clinician-teachers (n=7 to date of population of 35) recruited from the family medicine teaching site where the education scholarship pilot initiative was introduced. **Outcome measures:** This study explores clinician-teachers' experiences of their academic roles in a hospital-based family medicine setting. This qualitative data will contribute to a better understanding of the perceived needs of clinician-teachers in terms of their teaching and scholarship. **Findings/conclusions:** Preliminary findings suggest that clinician-teachers view teaching and mentorship as key roles, with varying levels of skill and expertise related to scholarship and research. Having local supports for clinical and teaching duties, and opportunities to network were also valued for academic advancement. This qualitative study aims to provide a detailed picture of how clinician-teachers function in their academic roles in this setting, and how their perceived needs can translate into specific recommendations for effective support in the development of their professional identities.

**550 Evaluating a Master Class in Family Doctor Leadership – Work in progress**

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**Context:** Leadership is essential for the practice of family medicine and its development as a discipline. The Leader role is one of 7 core competences in the CanMEDS-FM framework. The Master Class is used in the performing arts to support the development of "rising stars", and may be applicable to enhancing leadership capabilities in promising family physicians. **Objective:** To assess the effectiveness of a Master Class approach in developing emerging leaders in family medicine. **Design:** Mixed method, combining quantitative evaluation of five sessions and qualitative assessment of participant interviews, conducted 2 to 4 months following the course. **Setting:** Academic department of family medicine at the University of Toronto. **Participants:** Sixteen "rising star" leaders identified by site Chiefs and Program Directors. **Intervention:** A program consisting of five 2-hour evening sessions over ten weeks, each conducted by a different facilitator with recognized leadership expertise and achievement in a range of domains relevant to family medicine. **Main outcome measures:** Qualitative assessment of pre-course descriptions of a problem in leadership submitted by each participant, quantitative assessments of each session and qualitative assessment of impact on participants. The problem descriptions and interviews will be assessed using descriptive thematic analysis. **Results:** Evaluation of individual sessions were

generally high. Post-course qualitative findings will provide insight into the impact on participants. **Conclusion:** A rigorous assessment of the Master Class approach will determine its effect as a method for developing rising leaders in family medicine. A limitation, common to much of the research in leadership development, is the lack of a comparison group and the selected nature of participants. The evaluation will lead to refinement of the program, and may have broad applicability for family doctor leadership development in many settings and across career stages.

### First Five Years

#### 551 Training Family Medicine Residents to Perform Lung-Ultrasound - Work in progress

Jason K. Ko, MD; Jun S. Yin, MD; Melissa L. Wallace, MD; Kyle Carter, MD, CCFP (EM)

**Context:** Congestive heart failure (CHF) is common and associated with significant morbidity and mortality. Current methods to detect CHF utilizes clinical findings and chest X-rays that lack either sensitivity or specificity, but point of care lung ultrasound (LUS) has been shown to be both sensitive and specific. LUS semi-quantifies heart failure using artifacts called B-lines or “ultrasound lung comets”, which are also dynamic and respond in real-time to diuresis and ultrafiltration. This responsiveness, as well as portability, immediacy, and lack of radiation are key advantages over radiographs. LUS is also highly teachable, with studies in Emergency Medicine demonstrating high resident-expert correlation after a single resident teaching session. Family physicians encounter CHF in a variety of settings and LUS is an important skill for family medicine residents to develop. However, the ability for family medicine residents to acquire that skill is unknown. **Objective:** To assess if first-year family medicine residents can be taught to identify congestive heart failure exacerbations (CHFE) on lung ultrasound (LUS) after a single teaching session in the inpatient setting. **Design:** Prospective single-centre study comparing interpretations of resident-acquired LUS video clips generated on inpatients with suspected CHFE between those residents and Canadian Point-Of-Care Ultrasound Society (CPOCUS)-trained physician experts. **Setting:** Strathroy-Middlesex General Hospital (SMGH) and the Strathroy and Mt. Brydges sites of the Regional Family Medicine Program of the Schulich School of Medicine and Dentistry at the University of Western Ontario. **Participants:** First-year family medicine residents, CPOCUS-trained physician experts, and in-patients at SMGH for whom CHFE is among the differential diagnosis on admission. **Intervention:** Resident interpretation of acquired LUS video clips vs. expert interpretation of the same video clips. **Main outcome measures:** Interrater reliability of LUS in patients with suspected CHFE between expert CPOCUS-trained physicians and family medicine residents. **Result:** To be determined. **Conclusion:** To be determined.

### First Five Years

#### 552 Family Medicine Obstetrics in Residency: Program evaluation - Work in progress

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**Context:** Family physicians (FPs) are providing increasingly less low-risk obstetrics (LRO) care services across North America in recent years. Nevertheless, FPs offering LRO provide a continuity of care which many pregnant women value. FPs’ clinical outcomes are similar to those of obstetricians. Family medicine residents who experience high quality, evidence-based obstetrics training integrated with family practice may be more likely to practice LRO. **Objective:** To evaluate the ongoing implementation of Memorial’s Family-Centred Maternity Care (FCMC) program, exploring the effects of the program in relation to its intended outcomes. **Design:** Mixed methods. **Setting:** Academic clinic, Memorial University, St. John’s, NL. **Participants:** Women who received LRO care from the FCMC team; family medicine residents at Memorial University. **Intervention:** Memorial University’s Discipline of Family Medicine has formed FCMC to provide patients with high-quality LRO care, train family medicine residents in LRO, and advocate for the practice of LRO among family physicians. **Main outcome measures:** Semi-structured interview question guide assessing patient satisfaction with FCMC compared to other LRO providers; paper survey assessing patients’ experience with prenatal, intrapartum, and postnatal care; online surveys for residents (at beginning, midway and completion of residency). **Results:** Residents just starting their first year identified feeling 34% confident (n=20) in providing unsupervised LRO care. By comparison, this same cohort identified at the completion of their first year of residency feeling 50% confident (n=19) in providing unsupervised LRO care. 64% (14/22) of residents worked with FCMC during their first year of residency. Of these, 79% (11/14) agreed that FCMC added value to their residency training. Findings from patient surveys and interviews, as well as resident surveys at completion of their residency are pending and will be ready for poster presentation. **Conclusion:** This evaluation affirms the educational value of the FCMC program among family medicine residents at Memorial.



553 **Une plateforme de recherche axée sur la pratique clinique au Québec – travail en cours**

Alain Vanasse\*, MD, PhD, FCFM; Yves Couturier, PhD; Shandi Miller, MSc; Joe Guillaume Pelletier, PhD, MBA, AdmA

**Contexte :** D'importants investissements ont été fait depuis cinq ans au Québec pour développer la recherche axée sur le patient en première ligne. Certains enjeux demeurent pour que cette recherche puisse contribuer à rendre la première ligne apprenante. **Objectifs :** Mettre en place une plateforme de recherche au Québec avec les milieux cliniques de première ligne, dont les priorités sont la recherche axée sur le patient et l'amélioration des pratiques cliniques. Articuler la culture de recherche ascendante, initiée par les médecins de famille et d'autres acteurs des milieux cliniques, à une culture descendante (demandes de recrutement ou de participation à des projets venant de l'extérieur). Augmenter la capacité opérationnelle et rendre pérenne les réseaux de recherche axée sur les pratiques de première ligne (RRAPPL ou « practice-based research networks ») qui composent cette plateforme. **Design :** Co-construire un modèle opérationnel de la plateforme (offre de services, gouvernance, guichet d'accès central) en se basant sur les acquis, avec une approche par étapes. **Environnement :** À terme, cette plateforme se composera de 55 cliniques (principalement des groupes de médecine familiale universitaires, regroupés par les quatre RRAPPL), intervenant auprès de 500000 patients. **Participants :** Des partenaires en soutien à la recherche en première ligne collaborent étroitement et contribuent financièrement afin d'accroître la capacité de quatre RRAPPL au Québec. **Mesures d'impact :** Augmentation de la capacité des RRAPPL à faciliter des projets de recherche multi sites. **Résultats :** L'accroissement de financement et le renforcement de capacité des RRAPPL en 2018-2019 a eu comme effet d'augmenter la capacité des RRAPPL à faciliter la recherche. Un accroissement supplémentaire est attendu en 2019-2020 en lien direct avec la mise en place du modèle opérationnel de cette plateforme. **Conclusion :** Ce partenariat novateur accroîtra la cohérence des activités de soutien à la recherche, contribuant à une première ligne apprenante.

Resident

554 **Electronic Reminders to Improve Appointment Attendance - Work in progress**

Donna Lee\*, MD, MHSc; Julie Eve Arseneault, MD

**Context:** The failure to show up to medical appointments is pervasive in primary care. Poor appointment attendance compounds the issue of being able to effectively access a provider within a reasonably timely manner, particularly since not every Canadian has a regular provider. There are not many existing studies that have evaluated the use of electronic message reminders from the context of a family medicine community clinic. Research supporting the use of electronic reminders will be an important tool that family physicians in Canada may utilize to maximize the efficiency of patient care. **Objective:** To determine whether the use of electronic reminders (email and/or text) will improve appointment attendance in the primary care clinic. **Design:** This is an observational, one group pre-post study design. Any patient who has an in-person appointment made with study supervisor at the Moncton Medical Centre will be included in the study. Patients have the freedom to opt into the reminder system or choose not to. **Outcome:** A baseline rate for missed appointments (no-show's) will be established for the period January 2018 to October 2018. The post-intervention rate will be collected for January 2019 to October 2019. The primary outcome will be the change in appointment compliance rate at 12 months after implementation. **Intervention:** The implementation of an electronic reminder system that sends a message to patients 24 hours prior to their scheduled appointment. Implementation started October 2018. **Practice implications:** Demonstrating improvement in appointment compliance may encourage more family physicians to take up EMR or automated reminder systems in their practice to optimize patient care and flow.

First Five Years

555 **Implementing Quality Improvement in Family Medicine Groups - Work in progress**

Neb Kovačina\*, MD CM, CCFP, MHSc; Marine Hardouin; Geneviève Arsenault-Lapierre, PhD; Isabelle Vedel, MD, PhD

**Context:** The present political context in Quebec seems favorable for Quality improvement (QI) in primary care. While there are initiatives in some University Family Medicine Groups (GMFUs), there is still no consistency in knowledge and teaching of QI among family physicians. **Objective:** Make all McGill family medicine groups 'QI ready' by 2020. **Design:** Pre-Post intervention study. **Setting:** Seven GMFUs (9 sites) affiliated to the McGill Department of Family Medicine. **Participants:** GMFU leaders and administrators, healthcare professionals, practice facilitators, administrative staff, patient and trainees. **Intervention:** A three-step pre-implementation process: 1) Raising awareness: an environmental scan focused on best practices in QI, followed by an internal scan and needs assessment in all GMFUs in the form of focus groups and a survey on readiness to change. 2) Building capacity: Two half-day long QI workshops for local champions, based on a tool developed

by Practice Improvement Initiative of College of Family Physicians of Canada. 3) Adopting a QI project: disseminating a QI Program proposal, with recommendations for guiding principles and first steps in implementation in all GMFUs and other partnering organizations in Quebec and Canada. **Main preliminary outcomes:** Baseline awareness and attitudes of clinicians towards a QI program, and number of local QI committee and QI champions. **Results/findings:** Baseline awareness and attitudes of clinicians toward the QI program seems favorable, with room for improvement with regards to resources, availability of performance data and feedback mechanisms. The number of local QI committees implemented increased from 2 to 8 (out of a total of 9 sites) and the number of local QI champions increased from 2 to 8 since May 2017. **Conclusion:** Involvement of key clinical leaders and offering early training helped to raise awareness and understand benefits of QI. Also, finding partners for teaching QI and making those sessions available to clinicians was crucial.

## Resident

### 556 Medical Assistance in Dying: Clinician experience - Work in progress

Ruchi Liyanage\*, MD, MSc; Michaela Kelly; Sabrina Tremblay-Huet, LLM; Thomas McMorrow, PhD; Ellen Wiebe, MD, CCFP, FCFP

**Context:** Canada passed Bill C-14 on June 17, 2016 which allows a person to receive medical assistance in dying (MAiD) if they meet all of the eligibility criteria. Although Section 241.2 of Bill C-14 specifies these criteria, there is still considerable room for clinician interpretation. It is important to understand how clinicians across Canada are interpreting this law.

**Objective:** To examine how clinicians interpret Section 241.2 of Bill C-14. **Design:** This was a qualitative study using semi-structured interviews and thematic analysis. We conducted the interviews in English and French via email, phone or video conference calls. All interviews were transcribed and the French interviews were translated into English prior to being read by the team. We identified the major themes, coded the transcripts and met repeatedly until we reached consensus.

**Participants:** We recruited clinicians providing MAiD from the Canadian Association of MAiD Assessors and Providers (CAMAP) listserv and through word-of-mouth. **Findings:** We interviewed 24 clinicians across Canada. They reported that some provisions in Section 241.2 pose interpretive challenges. Most clinicians indicated that the “natural death has become reasonably foreseeable” is the most difficult provision to interpret. We report on techniques clinicians employ when interpreting the law and their challenges. Most of the participants said that they asked their colleagues for help and that they had changed the way they interpreted the law over time. **Conclusion:** Identifying how physicians interpret Section 241.2 in Bill C-14 allowed us to understand more about the meaning they give to these criteria, their views on the current law and to identify the most helpful resources. This study provides a picture of an important but under-researched aspect of clinical practice and the role of clinicians in shaping the meaning of the new MAiD law.

### 557 eConsultation Innovative Strategy for Personalized Medicine - Work in progress

June C. Carroll\*, MD, CCFP, FCFP; Clare Liddy, MD, CCFP, FCFP, MSc; Amir Afkham, BEng; Erin Keely MD, FRCPC; Elaine S. Goh, MD, MSc, FRCPC, FCCMG; Gail E. Graham, MD, MSc, FRCPC, FCCMG; Joanne A. Permaul, MA; Judith Allanson, MD, FRCPC, FCCMG; Gerard Farrell, MD, CCFP; Ruth Heisey, MD, CCFP, FCFP; Tutsirai Makuwaza, MA; Donna P. Manca, MD, CCFP, MCLSC, FCFP; Mary Ann O'Brien, PhD; Roanne Segal, MD, FRCPC; Eva Grunfeld, MD, DPhil, CCFP, FCFP

**Context:** Electronic consultation (eConsult) may help address excessive wait times for genetics consultation and scarce genetics resources, as well as answer primary care providers' (PCP) questions about patients' genetic issues. **Objective:** Our objective is to determine if eConsult is an effective method to improve delivery of personalized genomic medicine in primary care. Specifically, what are the perceptions of PCPs and geneticists about the effectiveness of genetics eConsults and their implementation into practice? **Design:** Mixed methods implementation study using data collection forms and interviews. **Setting/participants:** PCPs and 7 geneticists in 2 regions of Ontario. **Intervention:** We are evaluating the existing eConsult system. PCPs initiate eConsults to a geneticist, who completes the eConsult and sends a response back to the PCP. **Outcome measures:** PCPs complete a questionnaire evaluating value and utility of each eConsult. Geneticists track type and appropriateness of eConsults. This presentation will report on a descriptive analysis of the geneticists' eConsult tracking forms and interviews with participating geneticists to explore their experiences with eConsult. Semi-structured interview guides will be used, with descriptive thematic analysis. **Preliminary findings:** After 3 months, there have been 30 genetics eConsults completed (22 adult, 8 pediatric). eConsults regarding cancer were most common (13, 43%), with possible genetic syndromes (4, 13%) and genetic tests (2, 7%) being the next most common. The majority of geneticists (17, 57%) did not expect PCPs to know the answer to the eConsult question posed. Early interview findings are that geneticists are positive about eConsult, and see value in educating PCPs through eConsults. By the time of the conference, we will have additional data on eConsults from geneticists at both sites and results of geneticists' interviews. **Conclusion:** Preliminary

results show that hereditary cancer eConsults are common, PCPs appear to be asking appropriate questions, and geneticists are generally positive about eConsult.

**558 Incidental Genomic Sequencing Results in Primary Care - Work in progress**

Agnes Sebastian; June C. Carroll\*, MD, CCFP, FCFP; Meredith Vanstone, PhD; Marc Clausen, MA; Rita Kodida, MSc, CCGC; Emma Reble, MSc; Chloe Mighton; Salma Shickh, MSc, CCGC; Melyssa Aronson, MS, CCGC; Andrea Eisen, MD, FRCPC; Christine Elser, MD; Raymond H. Kim, MD, PhD, FCCMG, FACMG; Jordan Lerner-Ellis, PhD, FACMG; Yvonne Bombard, PhD

**Context:** Use of genomic sequencing (GS) is increasing but with a limited number of genetics clinicians, primary care providers (PCPs) will increasingly be tasked with managing GS results, particularly those incidental to the primary reason for testing. Almost all individuals who undergo GS will have incidental GS results that fall into the scope of primary care. These incidental GS results may affect common chronic disease risk and management, medication dosage, or coordination of carrier screening. Previous studies show that PCPs anticipate major capacity challenges for managing incidental GS results, but it is unknown what PCPs' experiences and needs are when managing incidental GS results in their actual practice. **Objective:** To explore the experiences and needs of PCPs when managing their patients' incidental GS results in actual practice. **Design:** Qualitative descriptive study based on semi-structured telephone interviews with 15-20 PCPs whose patients received incidental GS results. Interviews will be audio-recorded, transcribed, and analysed using qualitative content analysis. **Participants/setting:** Purposive sampling of PCPs who have a patient receiving incidental GS results as part of a larger randomized controlled trial. Patients are adults with possible hereditary cancer recruited from cancer centres in Toronto, Canada. **Main outcome measures:** PCPs' experiences with managing incidental GS results, including impact of these results on patient management and needs for resources and support. **Anticipated findings:** This study will provide new evidence regarding the current capacity of PCPs to manage incidental GS results. We anticipate our findings will allow us to identify and build the resources to enable PCPs to do so. **Anticipated conclusions:** Next steps are to support PCPs' role in genomic medicine by using study findings to design targeted interventions. Delivery of GS in clinical care will be optimized by building capacity among PCPs to manage incidental GS findings.

**559 Anti-Racism Initiatives in Health Care Settings - Work in progress**

Nadha Hassan, HBSc, MPH; Aine Worketin, BSc; Sinit Michael, BSc ; Amita Mall, HBSc; Andrew Pinto, MD, CCFP, FRCPC, MSc; Aisha Lofters, MD, CCFP, PhD; Julia Rackal\*, MD, CCFP, MHSc

**Objective:** This scoping review asks the following research question: What are the policies, programs and quality improvement initiatives on addressing racism in health care organizations? A focus on reducing the impact of racism in our care and on our patients is intended to improve the health and well-being of our patients, trainees and staff. These findings have practical implications for other health care and public health institutions interested in intervening on racism as a SDOH. **Objectives:** 1) to identify anti-racism interventions in health care settings to address racism as a social determinant of health (SDOH), 2) to map existing interventions and elicit lessons learned in other institutions to take evidence-informed action, 3) to increase awareness and understanding of systemic racism among staff, patients, and in the communities in which we practice and 4) to promote practices and policies that reduce racial and ethnic disparities in health. **Design:** We conducted a scoping review to identify anti-racism interventions in health care settings. Several databases were searched: MEDLINE, CINAHL, EMBASE, Scopus, PsycINFO. The inclusion criteria were as following: **Setting, Participants, Intervention:** The inclusion criteria: an anti-racism intervention in a health care setting with a focus on outpatients or providers to outpatients. A concurrent grey literature search and expert consultation were also conducted. **Findings:** 3587 citations were retrieved for title review and 843 were included for subsequent abstract review. Preliminary results identify a range of anti-racism initiatives and strategies including: organizational change (e.g. leadership buy-in), development and training for staff and learners (e.g. educational workshops and curricula), policies and practices (e.g. racial equity hiring policies). Language such as 'cultural competency' and 'inclusivity' rather than 'anti-racism' could be problematic. A key challenge was creating sustainable change. The poster will include thematic mapping of the included articles.

**560 Targeting Poverty in Young Children - Work in progress**

Imaan Bayoumi, MD, MSc, FCFP; Cornelia Borkhoff, PhD; Patricia Parkin, MD, FRCPS

**Context:** Child poverty remains a prevalent problem in Canada, affecting one in five Canadian children. Child poverty has profound and long-lasting negative effects on child mental health, with increased prevalence of depression, anxiety, conduct disorders and hyperactivity problems. Emotional and behavioural health problems in preschool children predict academic success, and lifelong mental and physical health. Many professional health organizations recommend that healthcare

providers identify and address poverty, but little evidence exists regarding effective interventions. Social systems are complex and frequently difficult to navigate; therefore, many families may not be accessing all financially related benefits to which they are entitled. **Objective:** To evaluate the impact of structured review of financially related social needs and social service system navigation on child emotional and behavioural health, parent stress and depression and household income in low income families of young children. **Design:** Pragmatic RCT- pilot phase. **Setting:** Academic primary care practices in Kingston, Ontario. **Participants:** Families of children age 2-4 years screening positive for the validated question "Do you ever have difficulty making ends meet at the end of the month?". **Intervention:** A structured review of financially related social needs and resources with a trained Community Support Worker, who will help families access benefits for which they are eligible, including forms completion, and advocacy as needed. **Main outcome measures:** Primary outcome is child emotional and behavioural health (measured by the Strengths and Difficulties questionnaire). Secondary outcomes are parent stress and depression (measured by the Parent Stress Index and the Patient Health Questionnaire-9 respectively) and change in self-reported after-tax household income. **Relevance:** Effective poverty interventions and improved emotional and behavioural health in this age group have the potential to establish a foundation for improved mental health trajectories and greater academic success, which in turn can positively influence health over the life course.

## Resident

### 561 **LGBTQ+ Patients' Experience in Primary Care: A systematic review – Work in progress**

Shoghi Nikoo\*, MD, MA; Ellen Thompson, MD; Casimir Soare, MD, CCFP

**Context:** Sexually and gender diverse (SGD) people experience a high burden of chronic, infectious, and mental illness. Actual or potential negative experiences produce poor access to quality care. Primary care is the first and often most important access point to healthcare for SGD patients. **Objective:** This systematic review aims to understand SGD patients' experiences with primary healthcare so that access to and quality of care may be improved. **Design:** Authors performed a systematic search of qualitative literature on SGD experience of primary care in Pubmed, Medline, PsychINFO, EMBASE, EBSCO, and Cochrane. Data from papers that met inclusion criteria were extracted and thematically analysed to synthesize what Canadian SGD patients say about their healthcare. **Setting:** Papers met inclusion criteria if they included voices from Canadian SGD patients in settings relevant to primary care, including family medicine and mental health. **Participants:** Citations were included if participants identified as sexually or gender diverse, including but not limited to lesbian, gay, bisexual, transgender, intersex, two-spirit, gender non-binary or queer. **Outcome measures:** Data included statements by SGD patients and summaries of participants' perspectives provided in the text of included papers. **Findings:** 439 citations were screened, and six were ultimately reviewed. Common themes among the papers reviewed included negative experiences due to provider judgement, dismissal, over-pathologization, and discomfort. Participants managed negative experiences through hypervigilance, withdrawal, and taking personal responsibility for care and safety. Positive experiences were related to provider openness, confidentiality, and self-education. **Conclusions:** SGD patients identify the potential threats in primary care as barriers to access and quality. They employ various techniques to protect themselves from these threats. To improve care, providers might be open-minded, be self-reflective, and educate themselves on caring for their SGD patients. Future research should investigate intersex patients' experiences and intersections between SGD status and indigenous heritage.

### 562 **Interférence des réseaux en prévention des MCV - Travail en cours**

Nadia Deville-Stoetzel, PhD

**Contexte :** Les taux de participation au Programme de Sensibilisation à la Santé Cardiovasculaire (PSSC) actuellement mis en œuvre dans des logements sociaux subventionnés pour aîné-e-s varient de 18,3 % à 43,6 % entre les immeubles. L'analyse de réseaux sociaux a fait ses preuves en ce qui concerne l'implantation, le maintien et l'amélioration de la mise en œuvre de nombreux programmes de santé. **Objectif :** Cartographier les dynamiques relationnelles de deux bâtiments (cas extrêmes) afin de tester comment les relations de voisinage influencent la participation au programme (obstacles et motivations). Évaluer le potentiel de diffusion de nouveaux comportements. **Type d'étude :** Sous-étude d'une évaluation de programme (ECR), ce volet expose les résultats d'une analyse des réseaux sociaux qui combine étude sociométrique et qualitative descriptive. **Participants :** Tou-te-s les résident-e-s de deux immeubles HLM participants au programme sont invité-e-s à participer. Entre 75-105 (sur 150) personnes âgées de 65 ans et plus au total correspondant à un taux de réponse attendu de 50-70%. **Interventions/instruments :** Des questionnaires sociométriques (nombre, structure et qualité des liens) et guides d'entretiens qualitatifs semi-dirigés. **Paramètres :** Mesures quantitatives de densité, centralité, intermédiarité permettant de cartographier les réseaux, identifier les leaders d'opinion, ainsi que les cliques et les rapports de pouvoir. **Résultats/constats :** Différences structurelles des réseaux des deux immeubles à forte et à faible participation au programme en termes de densité, cliques, leaders positifs et négatifs. Présentation des stratégies de proximité et de distance



mises en place entre voisins, présences de clans et de conflits, amalgames entre le programme de prévention et les autres activités de l'immeuble et tous autres facteurs individuel et relationnel pouvant expliquer les différences de participation. **Conclusions :** En fonction de l'influence des interactions sur l'adoption de nouveaux comportements relatifs à la santé, il sera possible d'adapter le PSSC à différents contextes et d'en faire une initiative durable.

## Resident

### 563 Descriptive Analysis of Postpartum Complications Resulting in ED Visits - Work in progress

Prabhpreet K. Hundal\*, MD; Cassandra Quan, MD; Shayan Assaie; Leila Salehi, MD, MPH, CCFP (EM); Prashant Phalpher, MD, CCFP (EM); Rahim Valani, MD, CCFP (EM), MMedEd, MBA

**Context:** With increasing fiscal restraints and the need for efficient delivery models, women are being discharged sooner postpartum. As a consequence, complications that would easily be dealt with are now being captured later. These patients present to the Emergency Department (ED) to access quicker care to manage these complications. Prior studies have shown that up to 4.8% have at least one visit in the first six weeks postpartum. **Objective:** The purpose of this study is to analyze the reasons that postpartum women present to the ED in the short term ( $\leq 10$  days post delivery). **Design:** This is a retrospective study. **Setting:** William Osler Health System (WOHS) serves a young community that has the highest birth rate in Ontario. There are approximately 8000 deliveries across the system. **Participants:** Women who delivered at WOHS between January 1, 2018 and December 31, 2018 and who presented to the ED within 10 days of delivery were included. **Main outcome measures:** The primary outcome is the rate of and reasons for postpartum visits to the emergency department. The secondary outcome is to identify maternal characteristics that are associated with postpartum visits to the emergency department. **Results/findings:** A total of 306 visits were recorded between January 1 and December 31, 2018. Results are pending and we intend to have the analysis completed by the end of May 2019. **Conclusion:** Results will be used in the development and implementation of targeted strategies to reduce the rate of postpartum emergency department visits and to improve postpartum health.

### 564 Evaluation of a Group Perinatal Care Program - Work in progress

Anne Biringner\*, MD, CCFP, FCFP; Milena Forte, MD, CCFP; Susannah Merritt, RM; Natalie Morson, MD, CCFP; Joanne Permaul, MA, CCRP; Natalie Tregaskiss, RN, RM; Sakina Walji, MD, CCFP

**Context:** Group perinatal care (GPC) offers a "one stop" approach to prenatal care (PNC) and education. It is associated with high levels of patient satisfaction and improved clinical outcomes. Co-facilitation of GPC (including postpartum care) by midwives (MW) and family medicine residents (FMR) in an academic family health team (FHT) has not been assessed. **Objective:** To compare clinical outcomes, preparedness for birth /parenting and satisfaction in women receiving traditional PNC (TPNC) vs GPC. **Study design:** Cohort study using surveys distributed at 6 months postpartum. **Setting:** Academic family health team (Toronto, Canada). **Population:** Prenatal patients receiving care in the Mt Sinai Academic FHT who delivered after October 2016. Participants of GPC were compared to those receiving TPNC. All women delivered with the same group of family physicians. **Outcome measures:** Birth outcomes, breastfeeding (BF) rates, preparedness for birth, satisfaction with care. **Results:** Response rates were 49% GPC (70/144) and 32% TPNC (54/171). Responses of all primiparas (68 GPC, 30 TPNC) were analyzed. Demographic characteristics were similar for both groups – 97% partnered, 64% Caucasian, 98% college educated. Baby birth weight, gestational age at delivery, use of epidural were similar between the two groups. Cesarean section (CS) rate was 16.2% for GPC and 37.9% for TPC ( $p=0.032$ ). Exclusive BF rates were similar at hospital discharge and at 6 weeks but significantly different at 6 months postpartum (73.8% GPC and 44.4% TPNC ( $p=.009$ )). There was no difference between the groups in sense of preparedness for common pregnancy issues, labour and delivery, care for their newborn or breastfeeding. 66.7% of GPC participants had connected or were planning to connect with other group members outside planned sessions and 95.7% would recommend GPC to family/friends. **Conclusions:** GPC was associated with a lower CS rate, higher rate of exclusive BF at 6 months and high levels of satisfaction.

## First Five Years

### 565 Cytolytic Vaginosis: A systematic scoping review - Work in progress

Roni Kraut\*, MD, CCFP; Sandy Campbell, MLS; Fabiola Diaz Carvallo, MD

**Context:** Vulvovaginitis can significantly impact a women's quality of life. The common differential includes bacterial vaginosis, candidiasis and trichomoniasis. Cytolytic vaginosis, a little known condition, should also be considered. It occurs due to an overgrowth of lactobacilli, with symptoms that mirror candidiasis, but with a distinctly different

treatment. It has been estimated to be the cause of 2 – 7% of cases of vulvovaginitis and upwards of 30% of recurrent cases. **Objective:** To review the published literature on cytolytic vaginosis, determine what has been studied and identify areas where further research is warranted. **Design:** A medical librarian searched Prospero, Wiley Cochrane Library, Ovid Embase, Ovid Medline, EBSCO CINAHL, ProQuest Dissertations and Theses Global, and SCOPUS, from inception to April 4, 2019. Studies were included in the review if they pertained to cytolytic vaginosis. Data extracted will include year published, location of study, journal, type of study, focus of study, and study findings. Two independent reviewers will screen studies and extract data. **Results:** Preliminary results of the literature search yielded 79 unique papers, and of these approximately half met the inclusion criteria. Further results of study selection and data extraction will be available at the time of presentation. **Conclusion:** The results will inform clinicians on what is known about cytolytic vaginosis, and provide guidance to researchers on future areas of study.

**566 Sexual Health Primary Care Resources in University - Work in progress**

Sophie Sawler\*; Madison Pendleton; Carolyn Arbanas, MD, CCFP (EM), MSc; Stefania Moro, PhD, MA; Michael Cardinal-Aucoin, PhD, MSc

**Context:** In recent years there has been a clear increase in STI rates across Canada. This trend is particularly strong in the young adult population, especially those attending college/university. **Objective:** To assess awareness of and access to sexual health primary care resources by students at a residential university in Canada. **Design:** Mixed-methods approach involving a structured interview and a survey incorporating semantic differential, Likert scale, dichotomous, and open-ended questions. **Setting:** Campus of St. Francis Xavier University, a residential university in rural Nova Scotia, Canada. **Intervention:** Structured interview and survey. **Main outcome measures:** A summary of interview responses is provided. Survey data were analyzed by t-test, Mann-Whitney U test, and ANOVA as appropriate. **Results:** Participants reported general dissatisfaction with their prior-knowledge of sexual health, which they rated as minimal to moderate. Knowledge about STI risk, transmission, safe sex practices, and treatment options varied with gender and degree program. Most female, but only half of male, respondents were aware of at least one option for access to available sexual health primary care resources, including STI screening, on or around campus. Female participants reported this information usually had been acquired by word of mouth. **Conclusion:** University students demonstrated a lack of basic knowledge of types of STIs, their transmission, and symptoms. Students were also generally poorly informed regarding availability of and access to sexual health primary healthcare resources. This deficit in knowledge about sexual health and resources combined with certain high-risk sexual practices prevalent in today's culture, involving casual sex with multiple partners, is likely responsible for the increased rates of STIs in this population. Based on these findings, it is recommended that an increase in availability and visibility of education about safe sexual health practices and sexual resources available to university students be provided prior to and upon arrival at university.

**First Five Years**

**567 Barriers and Facilitators to Buprenorphine Use - Work in progress**

Pamela Leece\*, MD, MSc, CCFP (AM), FRCPC; Triti Khorasheh, MPH; Kim Corace, PhD; Amy Wright; Melissa Holowaty, MD, CCFP (AM), PhD

**Context:** In the midst of the largest drug overdose crisis in Canada, widespread use of evidence-based opioid agonist treatment such as buprenorphine is critical; yet implementation of buprenorphine has not been optimized. A range of barriers to the underuse of buprenorphine have been documented; however, existing studies lack comprehensive descriptions of barriers at multiple levels, and under-utilize theory to explain, characterize, and identify evidence-based strategies to address implementation barriers. **Objective:** To apply the Theoretical Domains Framework (TDF) to characterize the barriers and facilitators to buprenorphine use for opioid agonist treatment at the patient, professional, organization, and system level, and identify practice and policy gaps. **Design:** We will use Arksey and O'Malley's framework to conduct a scoping review of the peer-reviewed and grey literature using five electronic databases and three search engines. To validate our findings, people with lived experience of substance use, health system leaders, primary care and addiction medicine physicians, health service researchers, and implementation science methodologists will be involved throughout the review. Two members will screen and review eligible records, chart, and deductively code data using the TDF. **Setting:** Organisation and Economic Cooperation Development (OECD) member countries, with no restrictions on the clinical care setting. **Participants:** Patients with a diagnosis of opioid use disorder or opioid dependence, those currently on buprenorphine treatment (all ages), and individuals involved in their care including professionals (e.g., physicians, pharmacists). **Intervention:** Buprenorphine treatment. **Main outcome measures:** Barriers and facilitators to buprenorphine use. **Findings:** A comprehensive list of barriers and facilitators categorised by the domains of the TDF such

as knowledge, environmental context and resources, and social influences. **Conclusion:** This scoping review will contribute the first systematic understanding of barriers and facilitators to buprenorphine use at multiple levels, which can inform the design of evidence-based strategies to address implementation problems and improve opioid-related outcomes.

**568 Antimicrobial Resistant Infections in Canada - Work in progress**

John A. Queenan, PhD; Sabrina Wong, RN, PhD; Rachael Morkem, MSc; David Barber\*, MD

**Context:** Antimicrobial resistant (AMR) infections are increasing across the world at an alarming rate. The expected increased burden of AMR in Canada and around the world has underlined the need to expand and enhance Canada's capacity to monitor AMR infections. One source of information that could provide data and surveillance on AMR infections is the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). This organization is a pan-Canadian network of networks across 8 provinces and 1 territory. CPCSSN currently includes almost 1500 participating sentinel family physicians and nurse practitioners, and collects de-identified Electronic Medical Record (EMR) personal health information on almost 2 million patients for surveillance, research, and quality improvement. **Objective:** To quantify the occurrence of urinary tract infection (UTI) and the pattern of antibiotic prescribing for UTIs among a population of adults. **Design:** A cross-sectional design. **Participants:** Patients at least 18 years old with an encounter with a participating primary care provider between January 1, 2015 and December 31, 2017. **Intervention:** Clinical data extracted from electronic medical records from two of the eleven practice based research networks that comprise CPCSSN. **Main outcome measures:** (1) overall prevalence of UTI between 2015-2017; and (2) the proportion of antimicrobial resistant microbes by year using culture and sensitivity data. **Results/conclusions:** To be completed by August 2019.

**569 Prevalence and Management of Dyslipidemia - Work in progress**

Rachael Morkem, MSc; John Queenan, PhD, David Barber\*, MD

**Context:** Patients with dyslipidemia have an increased risk of cardiovascular disease (CVD). Quickly and efficiently identifying patients with dyslipidemia can provide the opportunity for early detection and intervention thus improving cardiovascular outcomes in many individuals. The 2016 Canadian guidelines for the management and prevention of CVD propose that lipid screening should be conducted in all patients, 40 year of age and older, or on any individual with a significant risk factor associated with CVD. In order to develop prevention strategies to reduce individual and population risk of CVD it is important to identify patients at risk, such as those with dyslipidemia. **Objectives:** 1) Develop and validate a case definition of dyslipidemia in primary care electronic medical records (EMR) 2) estimate the prevalence of dyslipidemia 3) describe the epidemiology of dyslipidemia in Canadian Primary Care. **Design:** Descriptive retrospective cohort study. **Setting:** Primary care practices that contribute data to the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), a repository of clinical data for research, surveillance and quality improvement. **Participants:** The cohort included males and females at least 18 years of age with an encounter with a participating clinic between January 1, 2016 and December 31, 2017. **Main outcome measures:** We calculated the prevalence of dyslipidemia by location, smoking status and body mass index (BMI), as well as determining age and sex adjusted prevalence ratios by comorbid conditions. We also evaluated pharmacological management of dyslipidemia. **Results:** We will report proportions and prevalence ratios with 95% confidence intervals (CI). **Conclusions:** If successful we will be able to quickly and accurately detect patients who have an important risk factor for CVD. This will provide the opportunity for earlier interventions that can reduce the incidence of CVD in patients with dyslipidemia.

**Besrou Posters**

**A Proposal for Building a Culture of Academic Family Medicine: The Tannenbaum Fellowship Program**

Gillian Bartlett\*; Marion Dove; Isabelle Vedel; Nebojsa Kovacina; Teresa Rudkin; Tamara Carver\*

**Background:** To be recognized as an academic discipline, family medicine should actively create, promote and consume relevant research. Unlike other specialties, family medicine developed in response to a broadly perceived lack of adequate primary care, before an active research base was established. As a result, many family physicians experience challenges with the role of research for the discipline and many researchers may not always understand the constraints and needs of the clinical context. To address this gap, we need initiatives that cross contextual boundaries. **Objectives:** To describe a program where masters and doctoral students support first-year residents in their scholar training in Montreal, Canada. **Methods:** An online training module was developed for first-year residents at nine teaching sites. Learning objectives were mapped to the CanMeds Scholar competencies (critical appraisal and quality improvement). The residents were required to present their work

during education half day at the end of the first year. Graduate trainees (Tannenbaum Fellows) were recruited to support small groups of first-year residents. The postgraduate program director and research director met with the site education directors and Fellows twice a year. **Results:** The program started in 2016/17 at two sites with three senior PhDs. Residents had the option to view online modules about scholarly activity that had been developed for clinician teachers who were planning to supervise resident research projects. That year, there was significant variation between sites in type and quality of activities. In 2017/18, 15 Fellows were attached to nine sites and use of the same online modules more strongly encouraged. In 2018/19, 18 Fellows were appointed and an entirely revamped 4-hour online training module on critical appraisal and quality improvement was made mandatory for all residents. As a result of this initiative, graduate students who served as Tannenbaum Fellows now better understand the clinical context and constraints for conducting research in family medicine practice. The quality and consistency of the residents' presentations have also improved significantly. **Conclusions:** Integrating trainees from the research and clinical context establishes important early connections, strengthening potential research capacity and relevance. The long-term impact on the academic discipline needs to be evaluated.

### A Realist Synthesis of the Utility of the Right to Health Framework in Addressing Skilled Health Worker Shortages in Low and Middle-Income Countries - Work in progress

Kenneth Yakubu\*, MPhil (FM); Christine Balane, BHLthSc; Rohina Joshi, PhD; David Peiris, PhD; Andrea Durbach, PhD

**Context:** There is a global recognition of the right to achieve the highest possible levels of physical and mental health (the right to health for short). Central to this is the availability and accessibility to health workers. However, considering the current global maldistribution of health care professionals, realising the right to health is a far larger challenge for low and middle-income countries (LMICs). **Objective:** This study will (i) describe policies aimed at addressing skilled health worker shortages in LMICs, and the extent to which they align with the right to health framework (ii) determine how, and under what circumstances the right to health framework is useful in addressing skilled health worker shortages in LMICs. **Methodology:** Using a realist synthesis approach, this study will describe the interaction between factors that constrain the desired outcomes (context), and a change in thinking and resources (mechanisms). **Participants:** Health workers including, doctors, nurses, midwives and pharmacists. **Intervention:** All policy/interventions that are informed by the rhetoric of the right to health or have its features (i.e. reflect the core obligations of State parties as specified by the Committee on Economic, Social and Cultural Rights (CESCR) General Comment 14. **Comparator:** All policy/interventions that do not align with the right to health framework (i.e. are not informed by the rhetoric of the right to health or have its features.) **Outcome measures:** We will assess for any measure that represents change in the number of skilled health workers recruited, number of skilled health workers in the current stock, rate of skilled health worker migration as well as any consequence of the interventions. **Results Findings:** Pending. **Conclusion:** By recognising the need for incremental efforts and international support where a State party faces constraints, the right to health framework may offer value in the advocacy for population health in LMICs. However, the extent to which this has been realised needs to be assessed.

### Anxiety and Depression Among Elderly Admitted to Emergency Department of AL Rabta Teaching Hospital

Maram Mosbah\*, MD; Dorra Azouzi, MD; Khadija Zaouech, MD; Kamel Majed, MD

**Context:** Population worldwide is growing wider and older; the number of people aged 60 or over has doubled from 1980 to 2017 and expected to double again by 2050. Emergency departments (ED) seems to be affected by this fast growth of the population as visit rates is reaching 110000 visit per year in 2017 in AL Rabta ED with 63% of visits aged above 60. It is known that the ED is a stressful and noisy environment that may affect the psyche of elderly people, we aim to evaluate the incidence of depression and anxiety among elderly after the admission into ED and determine the possible medical factors associated with their genesis. **Design:** Prospective cohort study. **Participants:** We included from April to September 2018, 128 patients who were followed up during their admission period and discharged after improvement of their health status. We included only patients that have not been admitted into other departments. **Methods:** Patients aged over 65 years were defined as elderly. We collected sociodemographic information, reason and date of visit, medical history, level of autonomy, results of blood samples and other explorations requested on a case-by-case basis, diagnosis of disease, treatments and duration of the hospitalization. The psychological status was assessed using the hospital anxiety and depression (HAD) scale questionnaire at the end of the follow-up period that we defined as the time of discharge from the ED. The comparison between the two groups was analyzed using the Chi-square test. **Results:** Elderly patients accounted for 34.4% of participants, 50% of elderly were female. Anxiety and/or depression was found in 87 patient (68%), 86.4% of elderly had symptoms of anxiety and/or depression compared to 58.3% of those with younger age (p=0.001). Anxiety was found in 63.6% of elderly versus 45.2% in younger participants (p=0,04) and depression was found in 59,1% of elderly versus 29,8% in younger group (p=0,001). After making adjustment for gender, medical history, autonomy, reasons of visit,



diagnosis, and duration of hospitalization, the significant association between older age and anxiety and/or depression symptoms remained. **Conclusions:** The hospitalization in an emergency department affected the psyche of both groups of age. This impact was significantly more relevant among elderly than in younger group.

**Assessment of Knowledge and Attitude of Health Professionals Towards Pediatric HIV Disclosure in Addis Ababa, Ethiopia**  
Fikremariam Gudeta\*, MD; Meseret Zerihun\*, MD; Seifu Hagos, BSC, MPH, PHD

**Background:** Knowledge and attitude towards pediatrics HIV testing and disclosing positive result at the right time is important in having a good treatment outcome in HIV treatment and care. Vertical transmission of HIV from infected mothers to children is a common phenomenon in developing countries. After the introduction of highly active antiretroviral treatment (HAART), most children are living longer than before which is good indicator of a HIV care. Recently, HAART has become widely available to children living in sub-Saharan African countries, and this makes disclosure of HIV status an important issue. Not much research is done regarding HIV disclosure in Ethiopia which makes this an important area of study. **Objectives:** To determine knowledge and attitude of health professionals towards pediatrics HIV result disclosure in Addis Ababa, Ethiopia. **Methods:** A cross sectional quantitative study using self-administrative questioners was conducted in two hospitals and four health centers in Addis Ababa. Simple random sampling technique applied for selection of hospitals, health centers as well as health professionals. Bloom's modified cut point was used to describe the knowledge level and Likert's scale was used for attitude assessment. Data analysis was done by SPSS version-24 software. Chi-squared test and Odds ratios were computed. Bi-variate analysis was done for those having significant association of P-value of ( $<0.05$ ) and 95% confidence interval. **Results:** A total of 210 health professionals participated in the study with response rate of 95.54%. 102(48.6%) had good level of knowledge and the 108(51.4%) had poor level of knowledge regarding HIV disclosure. The study showed that attitude of respondents to be 20 (9.5%) negative, 71(33.8%) intermediate and 119(56.7%) have positive attitudes about HIV pediatrics disclosure. Significant association ( $P<0.05$ ) was found between level of knowledge, attitude and training only. **Conclusion and Recommendation:** Majority of health professionals had poor knowledge about pediatric HIV disclosure. Most of the study participants have intermediate and positive attitude level towards pediatrics HIV disclosure. Ministry of health and regional health bureau should give attention and support to provide training on pediatric HIV disclosure. Supervision of health care professionals and standard protocol on pediatric HIV disclosure should be implemented and monitored.

**Association of Blood Pressure Variability and Intima-Media Thickness with White Matter Hyperintensities in Hypertensive Patients**  
Xin Chen\*; Yingqian Zhu; Shasha Geng; Qingqing Li; Hua Jiang\*

**Background:** White matter hyperintensities (WMH) is a manifestation of cerebral small vessel disease, its extensive lesions are related to the risk of many diseases. It has been identified more prevalent in people with hypertension, so timely prediction the WMH burden of hypertensive patients in primary care is important. Parameters of ambulatory blood pressure variability (ABPV), ambulatory blood pressure (ABP) and carotid intima-media thickness (IMT) are closely associated with WMH burden, but few studies have focused on establishing effective models based on ABP, ABPV and IMT to predict the WMH burden. **Objective:** We aimed to investigate the association of ABP, ABPV and IMT with the WMH burden in hypertensive individuals, and to evaluate the value of predictive model based on ABP, ABPV and IMT. **Methods:** We retrospectively enrolled 150 hypertensive inpatients for physical examinations in our hospital between February, 2018 to January, 2019. We collected basic clinical information on all subjects, as well as measuring the Fazekas scale (quantifies the amount of white matter T2 hyperintense lesions) and measurements for ABP, ABPV and IMT. We classified patients into heavy burden of WMH group when their Fazekas scale grade was  $\geq 2$ . We analyzed the association between all measurements and the WMH burden. Multivariate analysis was performed to assess whether ABP, ABPV and IMT were independently associated with WMH and we used receiver operating characteristic (ROC) to evaluate the value of predictive model based on metrics of ABP, ABPV and IMT. **Results:** Higher WMH grade was associated with increasing age, diabetes mellitus, higher CH, higher LDL, higher IMT, higher 24-hSBP, higher daytime SBP, higher nocturnal SBP, and higher 24-hSBP-SD; 24-hSBP (AUC:0.688, 95%CI:0.594-0.783,  $P:0.020$ ), 24-hSBP-SD (AUC:0.742, 95%CI:0.653-0.830,  $P:0.001$ ) and IMT (AUC:0.711, 95%CI:0.622-0.819,  $P:0.001$ ) were independently related to the burden of WMH even after adjusting for the clinical variables. A comprehensive ROC model with a higher predictive capacity using these three parameters was created to assess the WMH burden in patients with hypertension. **Conclusions:** Establishing a model based on 24-hSBP, 24-hSBP-SD, and IMT might provide a new approach for enhancing the accuracy of diagnosis of WMH using metrics in 24-hABPM and carotid ultrasound. **Keywords:** White matter hyperintensities; carotid intima-media thickness; ambulatory blood pressure monitoring; hypertension

### Body Weight Perception and Management Practices of Overweight and Obese Nigeria Primary Care Patients

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**Context:** Overweight and obesity constitute vital driving forces for chronic diseases globally and contribute substantially to multimorbidity in the Nigerian primary care setting. Patients' weight and body size self-perceptions do influence weight management practices and such information is essential for clinicians in addressing the problem. **Objectives:** To determine the accuracy of body weight and size self-perceptions and weight management practices of overweight/obese patients in Nigeria. **Design:** Cross-Sectional Study. **Participants:** Overweight/obese adult patients above 17 years receiving care at practice-based research network (PBRN) primary care facilities in Nigeria. **Intervention:** interviewer-administered questionnaires and Modified Stunkard's body silhouettes were used to collect data on body weight, size perceptions and weight management practices. Weight and height were measured. **Results:** Of the 1071 overweight/obese patients from 89 tribes analyzed, 27.5% (n=294/1071) correctly perceived their body weight status. Significantly more overweight (44%; n=132/302) than obese (21%; n=162/769) patients correctly perceived their weight status. (X<sup>2</sup> 29.7; P< 0.001). Overweight patients (48.3%; n=146/302) were about 3 times more likely than obese patients (18.3%; n=141/769) to misperceive their weight status as normal. (OR 2.64; CI 2.0 -3.4). Also, 62.7% (n=671/1071) of patients correctly perceived their body sizes. A significantly higher proportion of male (9.4%; n=24/256) than female (4.9%; n=39/815) overestimated their body size. (X<sup>2</sup> 6.45; P=0.01). Irrespective of BMI Status and assessment method, female were more likely to underestimate while male were more likely to overestimate their BMI status. Preferred body size choices showed that about 59% (n=629/1071) of participants preferred overweight body size, 29.4% (n=315/1071) normal weight body size and 2% (n=21/1071) preferred underweight body size. Only 17.4% (n=186/1071) of patients were engaged in weight loss activities. Overweight and obese perceivers were two and half and three times respectively, more likely than normal weight perceivers to engage in weight loss activities. (X<sup>2</sup> 6.81; P< 0.01). **Conclusion:** Most overweight/obese patients have good visual understanding of their body sizes but their body weight perception greatly underestimated their BMI-categorized weight status with preference for overweight body size. Weight perception influences participation in weight management practices and clinicians should explore this relationship to address misperception and increase weight reduction management.

### Cost-Effectiveness Analysis of Vocational Training in Family Medicine in Rio De Janeiro

Adelson Guaraci Jantsch; Antônio Carlos Ponce de León

**Context:** From 2008 until 2016 Rio de Janeiro promoted a comprehensive Reform of its Primary Health Care (PHC) system, building new primary care (PC) clinics, and increasing the coverage of the Family Health Strategy from only 3.5% to 70%. As part of these structural changes, the Health Department invested financial resources to support vocational training in Family Medicine (FM) as a strategy to workforce development and a way to improve the quality of care delivered. **Objective:** To show the effect of vocational training in FM on the better use of health resources by comparing the differences in terms of resources spent by Family Physicians (FP) and Generalists through the 30 most commonly ordered blood tests. **Methods:** A longitudinal retrospective analysis through a panel data study having a sample of 550,000 patients treated in the PC clinics in Rio de Janeiro from 2013 to 2018. Patients treated by trained FP were compared to those treated by non-FP physicians (generalists) and the risks for having a blood test ordered were estimated using a Poisson regression model adjusted for age, sex and morbidities. The Incidence Rate Ratio comparing the risks between FP and Generalists was estimated. With the cost of every blood tests, a direct standardization method estimated the amount of money that could be saved if all physicians in PC were trained FPs. **Results:** A FP spends US\$ 164.88 (CI=133,88; 195,88) in 100 consultations while a Generalist spends US\$ 32.91 (CI= 30.58; 35.23) more for the same amount of patients. Within the sample studied, there were 45,066 consultations in a month and if all physicians were FPs, US\$ 16,908 could be saved—the equivalent cost of a family health team taking care of 4,000 people for a month. **Conclusions:** Vocational training in Family Medicine is effective to promote better use of resources, and saving money for the health system. This has implications for health managers and policy makers but also for patients, who will be less exposed to unnecessary procedures, decreasing their chances of adverse effects, over-diagnosis and over-treatment.

### Influence of IMPACT Training Model Based on Family Doctor System on Care Knowledge and Skills of Home Long-Term Caregiver

FANG Shui-Qin\*; HOU Jin; LU Xin-Jian; CHEN Mei; ZHANG Xiao Mei; ZHANG Jing Hui; QU Yan-Hua; TANG Hong-Wei; XU Hui

**Introduction:** The aging of the population makes the problem of providing for the aged increasingly prominent. areas in China are still mainly cared for by family members. It is reported that 97.3% of the elderly in rural China need to be cared for by their spouses, children or grandchildren. Because family members or non-professional caregivers lack professional

quality and basic medical knowledge, especially for the sick elderly, the service quality is difficult to guarantee. IMPACT training mode is one of the most widely used training modes in modern enterprises. For managers, this model can easily control the whole process. This study explores the feasibility of the IMPACT training model—a family doctor-led system—by up-scaling the knowledge and skills of long-term caregivers at home. **Objective:** To explore the influence of the IMPACT training model based on family doctor system on care knowledge and skills of home long-term caregiver. **Methods:** A total of 200 home caregivers were trained using IMPACT training model for 4 weeks. The outcome was self-assessment of home caregivers before and after the training, and an examination on 4 modules of nursing professional knowledge including knowledge of geriatric topics, safety, nursing practices, and rate of qualification after being trained. **Results:** After implementation of the IMPACT model training, self-assessment of home caregiver in geriatric knowledge was higher than before the training ( $p < 0.01$ ); scores of 4 modules of nursing professional knowledge were higher than that before the training ( $p < 0.01$ ); rate of qualification of nursing skills was 96.5%; and the scores of health knowledge, nursing knowledge and safety knowledge of trained caregivers were higher than those without training ( $p < 0.05$ ). **Conclusion:** The whole family group using the IMPACT training model could effectively improve the awareness of the elderly care knowledge, home care professional level and skills based on the family doctor system. This model can provide reference for China to cope with the aging of population and to train long-term caregivers. It can also promote the effective operation of general practice team and the good development of a family doctor led system.

### Painful Procedures and Procedural Sedation in Elderly Patients With Co-Morbidities in the Emergency Department

Dorra Azouzi\*, MD; Maram Mosbah, MD; Khadija Zaouech; Kamel Majed, MD

**Context:** Elderly management in life-threatening conditions is a problematic task especially when a painful procedure is considered. In fact, besides age, comorbidities play a major role in assessing the procedure itself. If conducted, what about procedural sedation (PS)? **Objective:** To investigate whether being of an older age with comorbidities is associated with the decrease in procedural sedation. **Design:** A retrospective descriptive study. **Setting:** Emergency department (ED) of La Rabta Hospital in Tunis. **Participants:** Since we do not have precise statistics on the field in our ED, we included randomly 140 patients who had undergone a painful procedure from March 2018 to October 2018. **Methods:** We compared 70 patients aged 66 years and older (group 1) to 70 patients aged 18 to 65 years (group 2). Both groups included respectively 62 and 51 patients with comorbidities. We admitted that painful procedures consist in any form of arterial puncture, catheterisation, thoracic drainages or abdominal tap. We collected sociodemographic information, medical history, level of autonomy assessed by Karnofsky index and use of PS. Descriptive statistics were calculated using statistical analysis software (spss). 2 tests were used to compare the categorical variables across the two age groups. **Results:** In group 1, 7.1 % had PS compared to 31.4 % in group 2 ( $p < 0.001$ ). Besides, 98.38 % of elderly with comorbidities, did not receive PS while conducting a painful procedure compared to elderly with no medical history ( $p = 0.03$ ). In group 2, there was no statistically significant relation established between comorbidities and PS ( $p = 0.878$ ). Actually, 31.37% of patients with comorbidities aged less than 65 years had PS. Gender was not associated with PS conduction neither in group 1 nor in group 2 ( $p = 0.127$  and  $0.06$  respectively). In group 1, 75.38 % of patients who did not receive PS are non-autonomous ( $p = 0.002$ ). In group 2, this association between autonomy and PS was not statistically significant ( $p = 0.07$ ). **Conclusion:** The poor use of procedural analgesia in elderly has been established through this study. Conversely, the younger seem to benefit more from PS. Comorbidities and the low level of autonomy seem to further decrease the anesthetic prescription among the elderly.

### Testing an Innovative Model for Supportive Supervision of Primary Health Care Providers in Rwanda - An ongoing study

Vincent K. Cubaka\*; Michael Schriver; Richard Nduwayezu; Per Kallestrup

**Background:** Supportive supervision may contribute to improve service delivery and health outcomes in primary health care, particularly in resource-constrained settings. In Rwanda, primary health care is provided by health centres nurses who receive supervision from district hospital nurses. This external supervision appears to have a managerial objective, focusing on administration, performance evaluation, and to a lesser extent on provider-centred problem solving, feedback and learning. There is an eminent need to identify and implement effective ways to improve the supportive aspects of this external supervision. We developed the ExPRESS tool (External Supervision: Provider Evaluation of Supervisor Support) to identify specific areas of external supervision to be improved. **Objectives:** To refine and test the applicability of a participatory and interactive feedback model based on provider-reported assessments of supervision practice as captured by the ExPRESS tool. **Methods:** A participatory action research (PAR) design called cooperative inquiry groups (CIG) was used. The study included purposively selected 5-6 supervisors from 3 district hospitals, willing and available to participate in regular meetings during the data collection period. They should have at least 6 months of experience with supervision of health centres. The study also included purposively selected nurses from 5-6 health centres who have interacted with at least one of the selected



supervisors, on a clinical matter and who are not planning to leave the health centre during the data collection period. Nurses assess supervision they receive, using the EXPRESS tool. Qualitative data is generated through focus groups-like meetings of supervisors. During these meetings supervisors reflect on nurses' feedbacks and their own experience, identify learning points, propose an action plan and implement change. The meetings are facilitated by a trained data collector who audio records and transcribes qualitative data. A qualitative content analysis of the data will be applied to explore supervisors' opinions and experiences with the feedback model. **Discussion:** We expect the results of this study to validate a new feedback model with the potential to improve the quality of external supervision of primary health care and indirectly improve providers' performance and motivation for optimal provision of care in Rwanda and similar contexts.

### The Besroul Café, a Work in Progress: Making real-time connections in global family medicine

Françoise Guigné\*, MD, CCFP; Clayton Dycck, MD, FCFP; Kenneth Yakubu, MPhil, FWACP; Russell Dawe, MD, CCFP

**Context:** The mission of the Besroul Centre for Global Family Medicine at the College of Family Physicians of Canada is to foster collaboration to advance family medicine around the world. Maintaining the momentum of creative discussion and problem solving between global partners in different contexts can prove challenging. Currently there is no "real time" virtual platform that allows synchronous sharing of expertise and resources between Besroul partners. The role of synchronous technology based medical education activities in fostering global family medicine education and training capacity amongst Besroul partners needs to be explored more fully. **Objective:** To develop, pilot and evaluate "Besroul Café" which is a capacity building internet platform focusing on the overarching theme of education and training in global family medicine. **Design:** Drawing on a participatory action research framework, Besroul Café will be designed in collaboration between its global partners. The program will be a twelve-month pilot, featuring regular facilitated synchronous virtual family medicine education and training themed discussions. **Setting:** The platform will be "premiered" at FMF with a real-time demonstration featuring partners joining worldwide via internet. Feedback from this session will be incorporated into future Cafés. **Participants:** Balancing regional interests and competing time zones, Besroul Café will focus on a single region. This initiative is well timed to follow up on the discussions that started in July 2019 at WONCA Africa. Participants will self-select through Besroul membership communication networks including the monthly newsletter. **Intervention:** Group feedback sessions and Café evaluation forms will be analyzed. **Main outcome measures:** A program evaluation will assess whether Besroul Café has increased capacity in global family medicine education, training and engagement amongst the participant Besroul members. **Results:** Increased regular opportunity for creative international discussion and problem solving should result in strengthened Besroul partnerships and increased capacity building and engagement in the domain of family medicine education for all stakeholders. **Conclusion:** This evaluation will be presented to the advisory committee overseeing Besroul Café to help inform whether this communication platform be expanded to include other regions, and to incorporate other Besroul domains such as advocacy and research.

### Towards the Advancement and Promotion of Excellence in Family Medicine in Haiti

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**Context:** The Haitian Association of Family Physician (AHMEF) is a non-profit socio-professional organization composed of health professionals working in Family Medicine (FM) field. As a young specialty in Haiti, there was a need to establish our identity by forming a structured entity; Implement, coordinate and support FM initiatives; Provide assistance to Family Physicians (FP) for their professional development and Unify FP voices both in promoting their professional interests and the well-being of their communities. We initiate the first steps in 2003. The first acronym was Haitian Family Medicine Society (SHAMEF). We reaffirmed FM founding principles in the Haitian context, advocated for FM as a medical specialty and have been involved in humanitarian missions after major disasters. AHMEF was officially created in 2018. Our Mission is to promote the advancement of the specialty by supporting its members in the practice of the profession and by supporting research and training in FM to improve health of communities in Haiti. Program **Objectives:** Protect and promote high-quality practice of FM in Haiti by fostering biopsychosocial approach to address health problems. Encourage and support FP in their continuing education. Promote the specialty within the health system and ensure interaction with decision makers. Promote research and quality improvement activities. Defend members' professional interests. Contribute to the improvement of Haitian population health through targeted activities and advocacies. Facilitate better interaction between FP and other specialists. **Achievements:** Development of regulations, statutes, policies and procedures. Organization of Inaugural General Assembly & Election. Establishment of the Executive Committee and sub-committees: (1. Scientific and Academic 2. Ethics and Mediation 3. Public Relations and Communication). Organization of regular monitoring and evaluation meetings. Legal recognition of the Association. Establishment of a regional committee. Celebration of World Family Physicians Day. Creation



of an Action Plan and Budget (2018 - 2019). **Ongoing Activities:** We continue advocacy and promotion of FM and FM Residency Programs; Create the Association official website; Establish relationships with local and international medical and professional associations; Organize scientific meetings, mobile clinics, support during national emergencies and disaster, etc. and Find human, material and financial resources to help the growth of the association.

### When TSTs and IGRAs Don't Add Up: Diagnosing Latent TB at the MUN Refugee Health Clinic

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**Context:** In Newfoundland and Labrador (NL), Public Health uses Tuberculin Skin Test (TST) to screen refugees from high TB prevalence countries. Positive TST results are screened with chest x ray and Interferon- $\gamma$ -Release Assay (IGRA) QuantiFERON as there is a presumed false positive TST from BCG vaccination. The Regional Medical Officer of Health recommends treating refugee patients for latent tuberculosis infection (LTBI) with positive TST and IGRA. Memorial University of Newfoundland (MUN) Refugee Health Clinic (RHC), which started in September 2015, has routinely followed this recommendation. Studies suggest the risk of active TB with discordant TST and IGRA testing is less than when both are positive, however it is not zero, as is currently implied by only treating patients with both a positive TST and IGRA. How many patients in the MUN RHC have discordant TB screening results and were labelled as not having LTBI, who may in fact have some risk of developing reactivation of TB in the future? **Objective:** Identify refugee patients seen through MUN RHC found to have discordant LTBI testing results and calculate the discord rate. **Design:** Retrospective chart audit. **Setting:** MUN RHC, St John's. **Participants:** Refugee patients (Government Assisted and Privately Sponsored) with LTBI testing results collected through the MUN RHC between September 2015 to April 2019. **Intervention:** TST and IGRA tests to diagnose LTBI. **Outcomes measured:** Concordant and discordant TST and IGRA result rates. Patients who need to be potentially recalled for counselling were identified. **Results:** Most (94%) patients completed both TST and IGRA. A 36% discordance rate was observed. 40 patients with discordant TST and IGRA results were identified. **Conclusion:** The higher discord rate between TST and IGRA results in the RHC needs to be better understood and studied. Given the small risk of active TB with discordant results and higher discord rate observed in the RHC, an interdisciplinary discussion with local respirology, public health and infectious disease experts was recommended to establish a treatment algorithm for managing treatment in these situations.

### A Collaborative Care Model Enhancing Regional Outpatient Care by General Practitioners

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**Introduction:** Since the 1970s, patients in China have demonstrated greater confidence in higher-level hospitals and a lack of satisfaction with General Practitioners (GPs) at Community Health Service Centres (CHSCs). This represents an inefficient use of healthcare resources. The Business-Strict Health Care Collaborative Development Network (a.k.a., Medical Alliance) is composed of Pudong Hospital (affiliated with Fudan University) and 11 surrounding CHSCs. This Medical Alliance was established to provide consistently high-quality community-based primary care; encourage community GPs to also use Pudong Hospital's resources; and create a two-way referral mechanism for a new health care service management model. Therefore, GPs now practice half a day per week at Pudong Hospital to assess and manage presentations of undifferentiated diseases and chronic disease. These GPs collaborate with specialists to diagnose and refer appropriately, so that patients needing to see a specialist may be referred by the GPs rather than by the previous system of disorderly self-referrals. This new collaborative model increases the role of GPs in the healthcare system, leading to greater trust in GPs by patients, more skill development among GPs, and a higher proportion of healthcare being provided by GPs. **Objective:** Our objective is to describe and evaluate this program for its effectiveness in improving primary care provision by GPs. **Methods:** According to the ten steps of a quality control circle, we have performed a plan, do, check, action (PDCA) evaluation of our program. We began with a review of literature and hospital/CHSC management documents to establish baseline values our indicators, including referral rates by diagnosing GPs at CHSCs to specialists at Pudong Hospital, pass rates of GPs over time in their annual exams, access to care, cost, and patient satisfaction. Mixed methods include document review and patient surveys. **Results:** Over two years we have completed one PDCA cycle, revealing increased rate of referral coming through CHSC GPs from a baseline 10% to 30%. Additionally, the pass rate of GPs in their annual operational ability assessment has improved from 75% to 92%. **Conclusions:** The Medical Alliance's collaborative model of care has contributed to a more efficient healthcare system in our region by increasing the role of GPs in primary care.

### Celebration of World Diabetes Day: Summary of activities in a family medicine residency program in Haiti

Emmanuel Fabrice Julcéus\*, Ornella Saintéran, Eddie Charles, Guerline Camilus, Rodney Destiné

**Introduction:** The International Diabetes Federation and the World Health Organization created World Diabetes Day (WDD) in 1991 (held on November 14th) to raise awareness and draw attention to the global burden of this disease. The objective of this study is to present a summary of three years of activities carried out as part of the celebration of WDD in the Family Medicine Residency Program (FMRP) at Saint Nicolas Hospital in Saint-Marc. **Method:** The FMRP has a non-communicable disease clinic that provides standardized care and group education sessions for patients with these conditions. It started celebrating WDD in 2016 and continued this initiative every year. The organizing team was composed of faculty, nurses, and FMRP residents. The targeted participants were diabetic patients followed in the Family Medicine Unit or in other departments like internal medicine and surgery. They are the one who were invited and who benefited the medical evaluation, other people in the hospital could just assist other activities. Activities included a medical evaluation, a demonstration of healthy behaviors, sharing experiences and lessons learned from diabetic patients and their families, and an award for diabetic patients' champions. Data generated by these activities were analyzed with descriptive statistics. **Result:** From 2016-2018, 384 diabetics attended the celebration, 86 in 2016, 87 in 2017 and 211 in 2018. Among them, 89.50% were women, 56.85% were between 45 and 64 years old, and 43.40% had a normal body mass index. Their mean blood glucose was 171.82 mg/dl (SD 76.61), their mean systolic and diastolic blood pressure was 140 mmHg (SD 21.60) and 85.72 mmHg (SD 13.09) respectively. In addition, 63.50% had foot abnormalities such as fungal infections, neuropathy, diabetic foot. 64.60% had abnormalities of the urine (UTI, proteinuria, glycosuria) and 92.75% had abnormal ophthalmological evaluations (cataract, glaucoma, retinopathy). Thirty-three participants benefit dental prophylaxis, 22 dental restoration, and 16 electrocardiograms. Twelve diabetics or their relatives shared their experience living with the disease, twenty received awards for their knowledge and their proper management of the pathology. **Conclusion:** The celebration of WDD at the FMRP has had growing success in terms of participation over the years. It was a learning process and a unique opportunity to involve the whole team to teach, learn, listen, honor, and educate diabetic patients. We were also able to detect and treat several complications related to diabetes that were found.

### Cost-Effectiveness Analysis of Residency Training in Family Medicine to Promote Access to Health Care (Work in progress)

Adelson Guaraci Jantsch; Antônio Carlos Ponce de León

**Context:** From 2008 until 2016 Rio de Janeiro promoted a comprehensive Reform of its Primary Health Care (PHC) system, increasing the coverage of the Family Health Strategy from only 3.5% to 70%. As part of these structural changes, the Health Department invested financial resources to support vocational training in Family Medicine (FM) as a strategy to workforce development and a way to improve the quality of care delivered. **Objective:** To show the effect of a two years residency training in FM on the access of patients to being diagnosed with the 27 most prevalent chronic conditions in primary care. **Human Subjects Review:** Project approved by the Institutional Review Board of the Health Department of Rio de Janeiro under the number 03795118.0.0000.5279 in February 1st, 2019. **Design:** A longitudinal retrospective analysis of adult patients from January 2013 to December 2018. **Setting:** Information from electronic medical records of 550.000 patients from the PC clinics in Rio de Janeiro comparing those treated by trained Family Physicians (FP) to those treated by physicians with no training in FM (generalists) as the main exposure. The Incidence rate ratios for being diagnosed with one of the 27 chronic conditions were estimated using a Poisson regression model adjusted for age, sex and previous morbidities. The cost for every consultation was estimated by the total salary of the physician (US\$ 4.270 for FP and US\$ 3.600 for Generalists) divided by the number of consultations in the same period. Those values and the IRR were used to calculate the Incremental Cost-effectiveness Rate used to estimate the cost for every new condition. **Anticipated Results:** Patients with hypertension, dyslipidemia and T2DM present a slightly higher risk of being diagnosed by Generalists. Patients with psychosis and schizophrenia, alcohol abuse, illicit drug abuse, depression, ischemic heart disease, chronic heart failure, arrhythmias, dementia, COPD, cancer, kidney failure, AIDS/HIV and liver disease have a higher risk of being diagnosed by Family Physicians. The costs for every new diagnosis are still being calculated. **Conclusions:** Vocational training in FM is effective to promote a more comprehensive access to health care, broadening the scope of diagnosed and treated conditions in PHC beyond the Brazilian Family Health Strategy's selective list of priorities (Hypertension and Diabetes). Selective conditions listed in the basket of health priorities (Hypertension, Diabetes and Dyslipidemia) of the Brazilian Family Health Strategy are commonly diagnosed by Generalists but more complex and difficult to treat health conditions keep being underdiagnosed by Generalists and therefore, having their access to health treatment impaired or delayed. From 2008 until 2016 Rio de Janeiro promoted a comprehensive Primary Health Care reform, increasing the coverage of the Family Health Strategy and investing financial resources to support vocational training in Family Medicine (FM) as a strategy to workforce development and a way

to improve the quality of care delivered. To show the effect of a two years residency training in FM on the access of patients to diagnose and continuous care to the 27 most prevalent chronic conditions seen in primary care. A longitudinal retrospective analysis using information from electronic medical records of 550.000 patients treated in the PC clinics in Rio de Janeiro from 2013 to 2018. Adult patients treated by trained Family Physicians (FP) were compared to those treated by physicians with no training in FM (generalists) and the Incidence rate ratios for being diagnosed with one of the 27 chronic conditions were estimated using a Poisson regression model adjusted for age, sex and previous morbidities. The cost for every consultation was estimated by the total salary of the physician (US\$ 4.270 for FP and US\$ 3.600 for Generalists) divided by the number of consultations a physician provided during the same period. Those values and the IRR were used to calculate the Incremental Cost-effectiveness Rate used to estimate the cost for every new condition. Patients with hypertension, dyslipidemia and T2DM present a slightly higher risk of being diagnosed by Generalists while patients with psychosis and schizophrenia, alcohol abuse, illicit drug abuse, depression, ischemic heart disease, chronic heart failure, arrhythmias, dementia, COPD, cancer, kidney failure, AIDS/HIV and liver disease were more likely of being diagnosed by Family Physicians. Vocational training in FM is effective to promote more comprehensive access to health care for their patients, broadening the scope of diagnosed and treated conditions in PHC.

### General Practitioner's Attitude in Primary Care Research in Banda Aceh City, Indonesia: The gap between knowledge and practice

Ichsan Ichsan\*; Amanda Yufika; Maimun Syukri; Imai Indra; Ryan McKee; Louella Lobo; Lynda Redwood-Campbell

**Objectives:** This study aims to understand the attitude, barriers, supporting factors, and practice of primary care research among general physicians in Banda Aceh, Indonesia. **Methods:** Using a descriptive-interpretive qualitative approach, 25 general practitioners (100%) providing primary care at Public Health Center (PHC) in Banda Aceh were interviewed using semi-structured interview guide to explore their attitude, barriers, and supporting factors in regards to primary care research. In addition, key persons from Provincial Health Office (PHO), Indonesian Doctors Association and the National Institute of Health Research and Development were also interviewed to confirm the findings and explore the research policy currently applied. All interviews were conducted and transcribed in Bahasa then translated into English for thematic analysis. **Results:** Only 1 out of 25 physicians was conducting research by the time the interview was done. This contradicted the findings on participants' attitude where majority of them demonstrated positive attitude towards primary care research. Lack of training after graduating from medical school, no special time allocated for research in primary care setting, and limited funding were mentioned as barriers in conducting research. Meanwhile, career advancement, pursuit of further education, and formal recognition by university were the supporting factors to conducting research mentioned during the interview. The absence of obligation to conduct research, lack of funding and time constraints were also mentioned by three key persons as challenges in conducting research for general physicians working in primary care. **Conclusions:** Participants in general showed positive attitude towards primary care research. However, as there is no obligation for them to conduct research, as well as lack of supporting system such as trainings, grants, and allocated time. Therefore they could not put their knowledge and attitude into practice. Support from the government is needed for doctors in primary care to conduct research in order to improve the quality of care itself.

### Pediatric Nutrition Screening, Treatment and Management Program at Midland Doctors Medical Institute in Azad Jammu and Kashmir, Pakistan

Maheer Khan\*; Yasmin Majeed; Asrar Rashid; Syed Iftikhar; Sumair Khan; Siraj Munir; Shahid Fazal

**Background:** Poor pediatric nutrition continues to be a major cause of neonatal and childhood mortality in Pakistan. According to the National Nutritional Survey, 15% of all children in Kashmir, Pakistan suffer from severe malnourishment. To address pediatric nutrition outcomes in Kashmir, a Canadian and UK based charity has developed a rigorous screening, treatment and management program for children 0-10 years of age at the Midland Doctors Medical Institute in Kashmir. The program aims to screen all children presenting to the clinic for malnutrition from July 2018-December 2018, treat and manage the most severely affected and provide ongoing training and material resources to hospital staff. **Methods:** The goal of the program is to screen at least 1000 children for malnutrition over 6 months. During this period, approximately 5-10% of the most severely affected children will be enrolled into the treatment phase. Patients are screened based on anthropometric measures such as age, weight, height and mid-upper arm circumference. They are then categorized into risk groups based on their percentiles and z-scores on WHO growth charts and a personalized treatment plan is developed for each severely malnourished child. Treatment includes supplementary feeding formulas, supplementation for mineral and vitamin deficiencies and counselling from a dietician. To help sustain the program, ongoing training sessions are provided via Skype to the local pediatricians and nurses on clinical and public health topics such as growth monitoring, physical exam skills and prevention of malnutrition in the community. **Findings:** Out of the 307 children screened to date,

55 (17.9%) children are severely malnourished. Furthermore, 103 (33.6%) and 84 (27.3%) children are categorized as moderate and mildly malnourished, respectively. Six (1.9%) children have been enrolled into the treatment arm of the program, but more are expected to be enrolled in the coming months. **Conclusions:** Ongoing challenges include lack of human resources and funding to treat an adequate number of patients, geographic isolation of the hospital and remoteness of the surrounding patient population. As we are currently short on our goal to treat 5-10% of the patients, we may have to adjust our target and treat only the most severe cases.

## Thursday, October 31 / Jeudi 31 octobre

All poster presentations take place in Ballroom D, Level 1, Vancouver Convention Centre, West Building

### Facilitated Posters 601-605

#### 601 A Sneak Peek at the 2020 Rourke Baby Record

Patricia Tak Sam Li, MD, MSc, FRCPC, FAAP; Anne Rowan-Legg, MD, FRCPC; Denis Leduc, MD, CCFP, FRCPC, FAAP; Stephani Arulthas, MSc; Jonathan Reeves-Latour, MSc; Emmanuela Tedone, Med; Leslie Rourke\*, MD, FCFP, MCISc (FM), FRRMS

The Rourke Baby Record (RBR) is Canada's gold standard for well-baby/well-child care from ages one week to 5 years. Endorsed by the CFPC, Canadian Paediatric Society, and Dietitians of Canada, it is evidence-informed and updated regularly to keep its recommendations current. It includes the RBR Guides for visits and immunizations, RBR Resources pages with a summary of current evidence for most items, and a website with extensive resources for healthcare professionals and parents/caregivers ([www.rourkebabyrecord.ca](http://www.rourkebabyrecord.ca)). The 2020 edition of the RBR will be released next year. This poster will highlight what is new in the literature and RBR in the field of preventive paediatric healthcare for infants and young children with practical pearls for practice in the following domains: growth and development; nutrition; anticipatory guidance on injury prevention, behaviour and family issues, environmental health, oral health, and other common topics; physical examination; investigations and screening; and immunization.

### Medical Student

#### 602 Quality of Life Across Dementia Types in Memory Clinic Patients

Michelle Kushneriuk\*; Andrew Kirk, MD, FRCPC; Chandima Karunanayake, PhD, PStat; Debra G. Morgan, PhD, RN; Megan E. O'Connell, PhD, RDPsych

**Objective:** To compare patient and caregiver-rated quality of life (QOL) across different types of dementia. **Design:** Clinical retrospective chart review. **Setting:** University of Saskatchewan's Rural and Remote Memory Clinic (RRMC), a one-stop interdisciplinary clinic for patients with memory concerns referred by their family physicians. **Participants:** This study included 343 consecutively diagnosed patients seen at the RRMC between 2004 and 2016. All patients diagnosed with mild cognitive impairment (MCI, n=74), frontotemporal dementia (FTD, n=42), Alzheimer's disease (AD, n=187), vascular dementia (VD, n=22), or Lewy Body dementia (DLB, n=18) were included in this study. **Intervention:** Patients and caregivers completed questionnaires at their initial visit. A database of information on several hundred patients assessed in the clinic has accumulated. **Main outcome measures:** Data collection included primarily patient-rated patient QOL (QOL-PT) and caregiver-rated patient QOL (QOL-CG), as well as MMSE, age, and other patient demographics. **Results:** Although QOL-PT did not differ by diagnosis, QOL-CG was higher for patients with MCI (34.6±7.1) compared to FTD (30.9±5.2) and AD (31.7±5.9). A comparison of patient and caregiver QOL revealed patients rated their own QOL higher than caregivers did when patients' diagnoses were MCI (QOL-PT=37.3±5.0, QOL-CG=35.3±7.3), FTD (QOL-PT=37.2±6.1, QOL-CG=31.7±5.5), and AD (QOL-PT=37.0±9.7, QOL-CG=32.1±5.9). **Conclusion:** We found that QOL-PT does not differ across dementia types, but QOL-CG was higher in MCI vs FTD and AD, and patients with MCI, FTD, and AD rate their own QOL higher than their caregivers. QOL is of great importance in dementia, and in order to improve the management of these patients, it is essential for patient QOL to be considered. Management should focus on optimizing patient QOL and supporting patients, as well as their caregivers, through the challenges and reduced QOL that result from living with dementia.



**603 Functional Patient Outcomes After Platelet-Rich Plasma Therapy for Tendinopathy**

Constance Lebrun\*, MD CM, CCFP (SEM), FCFP, Dip Sport Med; Teresa De Freitas, MD, CCFP (SEM), Dip Sport Med; Ann-Marie Przynslowski, MSc; Rebecca Reif; Taryn Wicijowski

**Context:** Tendinopathy is a degenerative tendon condition. Limited evidence has reported platelet-rich-plasma (PRP) injections as promising in repairing tendinopathic degeneration. **Objective:** To assess PRP treatment efficacy for tendinopathy. **Design:** Cross-sectional retrospective chart review. **Setting:** Glen Sather Sports Medicine Clinic (Edmonton, AB). **Participants:** Patients who received PRP injections for tendinopathy between January 2010 and December 2018. Of 737 patient records (45.65±13.78 years) identified, only patients who completed both pre- and post-PRP Visual Analogue Scale (VAS) questionnaires were included for analyses (n=442; 47.14±13.76 years). Data were analyzed using descriptive statistics, t-tests, and repeated measures analyses. **Intervention:** Intra- and peri-tendinous PRP injections. **Main outcome measures:** VAS analyses (Domains: pain, functional limitation, physical activity) before and after a PRP injection. Patients reported reduced pain following an initial PRP injection for most areas (knee: p=0.00021; CI -2.41, -0.81; n=48; hip: p=0.0001; CI -1.56, -0.39; n=74; shoulder: p<0.0001; CI -1.52, -0.53; n=105; elbow: p=0.0007; CI -1.49, -0.41; n=79). Overall, patients had reduced limitation with functional activities of daily living (ADL; ankle: p<0.001; CI -2.14, -1.29; n=102; knee: p<0.001; CI -2.64 -1.04; n=48; hip: p<0.002; -2.36, -1.38; n=74; shoulder: p<0.0001; CI -1.86, -0.95; n=105; elbow: p=0.0002; CI -1.52, -0.41; n=79). Improved physical activity was demonstrated for all areas assessed (p<0.001). Of patients receiving a second PRP injection, benefit was reported for hip (p=0.020; CI -1.99, -0.50; n=20), ankle (p=0.028; CI -2.60, -0.16; n=23), and other (p=0.014; CI -3.57, -0.73; n=5) ADL function. Physical activity improved for hip (p=0.015; CI -2.76, -0.32; n=20), ankle (p=0.0025; CI -2.55, -0.19; n=23), elbow (p=0.030; CI -2.29, -1.17; n=15), foot (p=0.006; CI -3.51, -0.89; n=7), and other (p=0.050; CI -4.09, -0.10; n=5) tendinopathy. Pain improved for ankle tendinopathy only after a second PRP injection (p=0.0017; CI -2.96, -0.78; n=23). **Conclusion:** Results suggest PRP injections may be promising therapy for many tendinopathies.

**604 Functional Patient Outcomes After Platelet-Rich Plasma Therapy for Osteoarthritis**

Constance Lebrun\*, MD CM, CCFP (SEM), FCFP, Dip Sport Med; Teresa De Freitas, MD, CCFP (SEM), Dip Sport Med; Ann-Marie Przynslowski, MSc; Taryn Wicijowski; Rebecca Reif

**Context:** Osteoarthritis (OA) is a degenerative condition of joint cartilage leading to pain, inflammation, and loss of joint function, with joint replacement surgery being a last-resort option. Intra-articular platelet-rich plasma (PRP) injections have been utilized with positive results. **Objective:** To assess intra-articular PRP treatment efficacy for OA. **Design:** Retrospective chart review. **Setting:** Glen Sather Sports Medicine Clinic (Edmonton, AB). **Participants:** Patients receiving PRP injections for OA between January 2010 and December 2018 (n=170; 60.57±11.34 years); only patients completing both pre- and post-PRP Visual Analogue Scale (VAS) questionnaires were included for analyses (n=77; 60.60±12.09 years). Data were analyzed using descriptive statistics, t-tests, and repeated measures analyses where applicable. **Intervention:** PRP joint injections. **Main outcome measures:** VAS analyses (Domains: pain, functional limitation, physical activity) before and after a PRP injection in an affected joint. **Results:** Patients with OA reported that an initial PRP treatment improved joint function for knee OA (p<0.0004; CI -2.63, -0.83; n=35), shoulder OA (p=0.02; CI -2.71, -0.21; n=19), hip OA (p=0.007; CI -4.05, -0.79; n=14), and finger OA (p=0.004; CI -5.27, -2.23; n=4). Improvement in perceived physical activity was reported for knee OA (p<0.0001; CI -3.35, -1.33; n=35), hip OA (p=0.003; CI -3.15, -0.78; n=14), and shoulder OA (p=0.0006; CI -3.47, -1.14; n=19). Sustained pain reduction was reported only by patients with finger OA (p=0.004; CI -5.27, -2.23; n=4). Of OA patients who received a second PRP injection, only patients with knee OA reported significant improvement in pain (p=0.039; CI -3.50, -0.12), ADL function (p=0.014; CI -6.12, -1.05) and physical activity (p=0.012; -5.07, -0.93). **Conclusion:** Our results support effectiveness of PRP therapy for OA in various joints, with differential effects on pain, joint function, and physical activity ability. Supplementary PRP injections may not provide sustained relief for all joints, demonstrating a need for additional modes of OA management.

**Resident**

**605 Time Trends of Youth Anxiety Over the Past 20-30 Years**

Janelle Yu, MD\*; Dallas Seitz, MD, PhD, FRCPC; Susan Phillips, MD, CCFP

**Objective:** To determine whether the prevalence of anxiety/depression in those aged 5-25 have changed over the past 30 years in Ontario. Additional covariates of socio-economic status (grouped in quintiles of median household income), location (rural or urban), sex/gender, and immigrant status (immigrant, first generation, refugee, non-immigrant). **Design:** This is an observational study with a cross-sectional analytical study design. We will be analysing administrative data for

the whole province. Youth anxiety diagnosis data will be gathered from discrete time points (1992, 1997, 2002, 2007, 2012, 2017). **Setting:** Ontario children and youth from 1992-2017. **Participants:** Using IC/ES data on diagnostic codes for all encounters with physicians, we created a retrospective cohort of cases of mood and anxiety disorders among children and youth who received clinical services between 1992 and 2017 in Ontario. **Intervention:** Cases were defined as children and youth between the ages of 5 and 25 years who had a physician billed claim or ED visit with a diagnostic code for a mood or anxiety disorder in any 12-month period or an inpatient hospitalization with a primary discharge diagnosis of a mood or anxiety disorder. Psychosis diagnoses were excluded. **Main outcome measures:** Time trends and rates of anxiety/depression in Ontario children and youth over the past 30 years. **Results:** Child and youth anxiety/depression rates have remained largely stable over the past 30 years in Ontario. Prevalence increases with age and at every age is higher for girls than boys. **Conclusion:** Anecdotally, family physicians report increasing rates of anxiety and depression in children and youth. However, data over the past 30 years in Ontario show that these rates have remained largely stable.

#### 606 Tips In Preparing For and Conducting a Faculty Advisor Meeting

Danielle O'Keefe\*, MD, CCFP, FCFP, MSc; Susan Avery, MD, CCFP; Ean Parsons, MD, CCFP, FCFP; Cheri Bethune, MD, CCFP, FCFP

**Objective:** To determine if establishing consistency across Faculty Advisor (FA) Meetings by providing generic resources for preparing and conducting a FA Meeting is beneficial. **Design:** Several resources were developed: "The Dance Steps": a guide on how to prepare for and conduct the FA meeting, a video demonstrating a typical meeting and Resident Reflection, FA Meeting and Learning Plan forms. Resources were implemented for residents and Faculty Advisors. Feedback was sought following each FA Meeting over one year. **Setting:** Resources were developed by Family Medicine faculty at Memorial University. **Participants:** Sixty residents and ten Faculty Advisors. **Intervention:** The "Dance Steps" and video were shared with residents and Faculty Advisors prior to the FA Meetings. Meeting preparation included completion of the Resident Reflection Form and FA review of the resident's portfolio for evidence of progression and compiling notes regarding questions for discussion. Conducting the meeting involved listening to and coaching the resident, reviewing evidence of progression, discussing areas of strength and strategies for improvement. Finally, the FA Meeting Forms and Learning Plan were completed collaboratively. Following the FA Meetings, the Learning Plan and the FA Meeting Form were given to the Family Medicine Postgraduate Office for review and action, as necessary. **Main outcome measures:** Resident and faculty feedback on the usefulness of the Resident Reflection, FA Meeting and the Learning Plan forms was collected. **Findings:** Residents and faculty expressed "liking the layout", "format" and "structure". Faculty found the Resident Reflection form useful "to get the residents thinking about areas in which they feel deficient and develop a plan", and they found that the forms "definitely helped to focus discussion". **Conclusion:** The FA Meeting resources have provided consistency across FA Meetings. Residents and Faculty Advisors know what is expected of them leading up to, during and following the FA Meetings.

#### 607 Collective Wisdom on What Works in Faculty Development for CBME

Giovanna Sirianni\*, MD, CCFP (PC), FCFP; Shantell Walcott, MSc; Susan Glover Takahashi, PhD

**Background:** As postgraduate programs transition to an outcomes-based approach to curriculum, assessment and evaluation, there is evidence that faculty feel unprepared for the tasks necessary in a CBME context. Medical teachers working within these new educational models must contend with content and process differences including knowledge of CBME, teaching skills within a CBME system, along with new assessment tools. This project aimed to harness the collective expertise and opinion of education leaders to determine their experience and needs with regards to FD in CBME. **Methods:** In 2018, an online survey was distributed to program directors, faculty development leads and education leaders within those programs that had transitioned or would soon be transitioning to CBME educational models. After the initial survey invitation, four additional survey completion reminders were sent. Surveys were sent to 168 faculty members. **Preliminary results:** Overall survey response rate was 44.6%. Family Medicine faculty made-up 46.7% of respondents, followed by Medicine at 18.3%. 56.7% of respondents were Program Directors and 26.7% were FD leads. 80% of respondents had programs that had already launched to CBME. The top FD topics survey respondents would like to learn more about include: 1) Implementing CBME 2) Assessment tools 3) Feedback and Coaching 4) Competence Committees. The majority of programs felt that the ideal timing for CBME implementation was 6-12 months prior to implementation. The main perceived barrier to FD was lack of time amongst faculty. **Conclusions:** This survey is locally the first of its kind to evaluate the FD needs and experiences of many postgraduate programs supporting teachers and learners in their new CBME context. The results will inform the needs for additional resources and enable focused FD on barriers and needs. Longitudinal follow up may be helpful to monitor changes in FD gaps and needs over time.

**608 Faculty Development (FD) for CBME: A scoping review**

Giovanna Sirianni\*, MD, CCFP (PC), FCFP; Susan Glover Takahashi, PhD; Jeff Myers, MD, MSED, CCFP (PC)

**Background:** Medical training programs are undergoing transformational change with the advent of competency-based medical education (CBME). However, many faculty members feel ill prepared to carry out the teaching and assessment tasks required. Faculty development (FD) is often proposed as a key factor in CBME's successful implementation. The primary objective of this project was to conduct a scoping review of the literature to inventory what is currently written about FD in the CBME context. **Methods:** Four databases were searched using relevant keywords. Titles and abstracts generated by the literature review were manually reviewed for relevance. Articles flagged for full review: 1) Relevant to FD for undergraduate or postgraduate medical education 2) Descriptive articles on program experience with FD in CBME 3) Studies looking at best practices in FD in CBME 4) Consensus statements and frameworks 4) **Exclusion:** Validation studies focused solely on assessment tools; studies which did not specifically mention CBME. Themes identified and agreed upon by two reviewers. **Preliminary results:** Total of 709 citations and abstracts manually reviewed for relevance with 20 flagged for full review. **Main results:** 1) All studies published after 2009 2) 8/19 articles relevant to Postgraduate Medical Education 3) Most studies from Canada, USA and Europe 4) 4/19 articles with an experimental design with most articles being opinion papers or consensus guidelines. Most studies suggest what should happen in CBME FD, but not the best practices or practical approaches to achieving this. **Summary:** This scoping review illustrates that FD for CBME is a relatively new area for study with a paucity written on FD in CBME and few high quality studies. Themes from the current studies include content areas of focus for FD (e.g. workplace-based assessments) along with common enablers and barriers to implementation.

**609 Project ECHO – Care of the Elderly (ECHO COE)**

Sid Feldman\*, MD, CCFP, FCFP; Andrea Moser, MD, MSc, CCFP, FCFP; James Chau, MD, CCFP, FCFP; Lisa Sokoloff, MS, CCC-SLP; Navena Lingum, MSc, PMP; Shaen Gingrich, PT, MPT; David Conn, MB, FRCPC

**Objective:** Evaluate efficacy of Project ECHO COE to increase capacity of primary care providers (PCP) in managing care of older adults. **Design:** Mixed-methods; program evaluation. **Setting:** Virtual education program using videoconferencing; April – December 2018. **Participants:** Ninety-four primary care providers (28 physicians) with over 70% caseloads consisting of patients over 65 years. Participants were from across Ontario (12/14 LHINs); Twenty-two participants (23%) from Northern Ontario; Five physicians from other provinces. **Intervention:** Project ECHO (Extension for Community Healthcare Outcomes) is an international education program using videoconferencing to build capacity of PCPs, share knowledge through collaborative learning and discuss cases in real-time. ECHO facilitates Communities of Practice for PCPs and interprofessional teams in community and LTC settings using a hub-and-spoke model, connecting specialists at academic centres (Hub) with PCPs (Spokes) particularly in rural, underserved areas. Weekly sessions include a didactic presentation on a specific geriatric topic followed by case presentation from a spoke. Sessions are skillfully facilitated by trained Care of the Elderly family physicians to encourage multi-directional discussion and recommendations. Spokes also have access to a website with resources. The project has ethics approval at Baycrest and Health Sciences North. It is accredited by the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada. **Main outcome measures:** Knowledge, Self-Efficacy, Experience/Satisfaction. **Results/findings:** Demonstrated increase in knowledge and self-efficacy scores, Four themes emerged from qualitative analyses: reflection on the experience, feedback on the delivery, impact on practice and suggestions for future implementation. **Conclusion:** Project ECHO COE demonstrated a positive impact on knowledge and self-efficacy scores in PCPs, highlighting the value and impact fostered through ECHO. Qualitative findings speak to the feasibility of ECHO COE in meeting the needs of family physicians and other healthcare providers within Ontario and across Canada.

**610 The CFPC's Section of Researchers Blueprint 2 (2018–2023)**

M. Fortin\*, MD, MSc, CCFP, FCFP; J. Pereira, MBChB, CCFP, MSc, FCFP; V. Ramsden, RN, MS, PhD, MCFP (Hon.); B. Hutchison, MD, MSc, CCFP, FCFP; M. Meneer, MSc, PhD

**Context:** The College of Family Physicians of Canada (CFPC)'s Section of Researchers (SOR) Blueprint 2 (2018–2023) builds on the successes of the first Blueprint (2012–2017) to advance family medicine and primary care research across Canada. **Objective:** To guide the strategic direction of the SOR for the next five years (2018–2023). **Design:** A multipronged, participatory, and iterative process was undertaken to ensure multiple stakeholder input. **Setting:** Pan-Canadian, led by the SOR Council (SORC). **Participants:** 70 individuals, committees and groups. **Intervention:** An external evaluation of the impact of the initial Blueprint was conducted, followed by a day-long facilitated retreat with over 40 key stakeholders, representing various levels of expertise and perspectives related to primary care research. A writing group was struck to collate the input received, and to draft the Blueprint. Further input was solicited using purposive sampling from, among

others, family medicine residents, primary care scientists and clinicians. **Results:** The Blueprint 2 encompasses four strategic priority areas: Membership, Capacity Building, Advocacy, and Partnerships. Blueprint 2 particularly emphasizes research and quality improvement (QI) that emanates from the realities of everyday practise and is rooted in everyday work. This includes the questions faced by family physicians and their primary care colleagues at the front lines of care, and research and QI conducted in the front lines. Patient- and community-oriented approaches are at the core, while contributing to attaining the Quadruple Aim (continually improve care, patient experience, efficiencies and physician experience). Among others, practice-based research networks and research training opportunities are highlighted. **Outcome measures:** Metrics are being developed alongside the implementation of Blueprint 2 to track its outcome and to ensure alignment with current and future opportunities. **Conclusion:** Blueprint 2 provides a useful, membership-driven strategic plan for the SOR. The implementation of the objectives will promote research and QI, and build a culture of curiosity.

**611 Rural Surgical/Obstetrical Networks - Evidenced based BC approach**

Nancy Humber\*, MD, CCFP, FCFP; Kim Williams, BSN, MSN

**Context:** The attrition of rural surgical and maternity programs across Canada and British Columbia has affected access to intrapartum and surgical services. Supporting low volume surgical programs that underpin the delivery of maternity services through access to 24/7 Cesarean Section is part of a provincial solution. **Setting:** In BC, a strategic approach to sustaining maternity and rural access to surgical services has been to prioritize low volume surgical programs supported by Family Physicians with enhanced skills and/or solo practice specialist surgeons. The Joint Standing Committee on Rural Issues in BC has funded the implementation of a 5 year program to support these sites. **Objective:** To develop a provincial networked framework for implementation of supports to sustain low volume surgical and maternity programs in rural BC reliant upon Family Physicians with enhanced skills and solo practice specialist surgeons. **Design:** Through a pillared approach, a Rural Surgical and Obstetrical Network was designed including Operational Capacity, Continuous Quality Improvement, Remote Presence Technology, and Clinical Coaching. In collaboration with Health Authorities, rural health sites, communities and providers, readiness assessments for identified communities were completed and evaluated and work plans developed for implementation of a pillared approach in each community. Pillars strategically supported additional networks between smaller sites and larger regional sites when possible aligning with clinical flow pathways. An evaluative framework will follow CQI metrics such as clinical outcomes, PROMs/PREMS and quality team function as well and overall network form and function. **Conclusion:** Through collaborative working groups, external funding blended with operational funding within Health Authorities can strategically target areas of need through a provincial level program. Regional and provincial networks are definable and valuable infrastructures to support clinical flow pathways. Relationships between communities, Health Authorities and providers in a networked model are strengthened by a shared value and purpose.

**612 Leveling The Playing Field: Helping patients with spinal cord injuries**

Joseph Lee\*, MD, CCFP, FCFP, MClSc (FM); James Milligan, MD, CCFP

**Objective:** Physicians report that patients with physical disabilities are often more complex in their healthcare and clinic visits require more time. Many physicians lack appropriate training to address spinal cord injuries (SCI) in primary care. There is an opportunity to address these barriers through individual education of primary care providers, creation of a network of primary care providers and targeted training opportunities for primary care providers (PCPs). **Background:** The Primary and Community Care Spinal Cord Injury Summit held in November 2016 brought together multiple stakeholders including individuals living with SCI, caregivers, advocates, clinicians, researchers, educators, administrators, and government officials. The goals of the summit were to direct future research, education, and innovation, shape the direction and implementation of policy and further develop a community of practice to advance primary and community care for individuals living with SCI. **Intervention:** The Centre for Family Medicine Mobility Clinic started in 2010 and currently provides primary care to over 70 individuals with spinal cord injuries (SCI). Our Mobility Clinic is an innovation to support and empower individuals with SCI and other physical disabilities to better manage their health by promoting research, education, and service within primary care. To address the goals of the summit, we have developed two different ways to engage PCPs using our Mobility Clinic model focusing on establishment of Mobility Clinics across Ontario and distribution of education materials to PCPs including case-based learning modules (CBLMs), quick reference guides on physical disabilities and a manual to guide care of individuals with physical disabilities. **Summary:** Through engagement of PCPs, we are helping to provide knowledge translation and dissemination among PCPs across Ontario. Successful engagement of PCPs helps to level the playing field for individuals with spinal cord injuries, ensuring that they have access to high-quality primary care.



**613 Familial Hypercholesterolemia: Hiding in plain sight**

Huma Numair\*, MD, CCFP, FCFP; Hammaan Khan, BMSc; Shahzana Shahzad, MBBS; Naghmi Shirin, MBBS

**Context:** Familial Hypercholesterolemia (FH) is a common Monogenic Autosomal co-dominant disorder, causing premature atherosclerotic cardiovascular disease (ASCVD). Despite an estimated prevalence of 1:250(0.4%) worldwide (~145,000 Canadians) FH is vastly under diagnosed. Patients with Hypercholesterolemia (even without FH-causing variants) have a 6-fold ASCVD risk which increases to 5-22 fold with FH-causing variants (In LDLR, APOB or PCSK9 genes) further aggravated by conventional CV risk factors. Canadian Cardiovascular Society Position Statement on Familial Hypercholesterolemia (Update 2018) recommends FH identification by Dutch Lipid Clinic Network Criteria (DLCNC), Simon Broome Registry, or FH Canada definition and optimum treatment with Statins+/-Ezetimibe/PCSK9i. **Objective:** To determine if Possible Clinical FH (as per DLCNC) is identified and managed appropriately in a Family Practice Setting. **Design:** A Cross-sectional study. **Participants:** 13,512 patients ≥40 yrs age visited HFHClinic, Burlington, Ontario (2011-2018). Chart audit was performed with identification Criteria of LDL-C ≥5 within 12 months (excluding pt with allergies to Statins, Ezetimibe, PCSK9i) Patients were divided according to age, gender, calculated LDL-C, dyslipidemia counselling, Cardiologist referral, optimum medication (Statin+/-Ezetimibe/PCSK9i). **Intervention:** Analysis of EMR data. **Outcome measure:** Identification of patients with Possible Clinical FH (by DLCNC), assessment of optimum treatment, lipid control and associated factors. **Result:** Of total 13,512 patients, 46 patients{(46/13,512=0.34%) 39% Males:18/46, 61% Females: 28/46} met the criteria for Possible Clinical FH. Only 33% (15/46) were on Cholesterol meds (CM), of which 80% (12/15) were NOT on optimum dose. Despite non-optimized statin dose, only 17% (2/12) were on Ezetimibe+statins. No Dyslipidemia Counselling was charted for 37% (17/46). 48% (11/23) referred to Cardiologist were NOT on Optimized Ezetimibe+Statin/PCSK9i. No major variation by age and gender. **Conclusions:** ~10% of FH is diagnosed in Canada. ~11% of possible FH (DLCNC) cases have an identifiable FH causing gene mutation. We find that Possible FH is under diagnosed and inadequately treated at Primary care level. It is imperative to raise awareness among health care professionals regarding the under-diagnosis and inadequate treatment of possible/definite FH.

**614 Evidence-Based Behavioural Interventions in Insomnia: A patient-physician discussion tool**

Kenjey Chan\*, MD, CCFP

Insomnia is a major healthcare problem, with approximately 3.3 million Canadians estimated to experience chronic insomnia and 9.5% estimated to have clinically significant insomnia associated with daytime impairment from fatigue, poor concentration and irritability. Insomnia has been associated with significant morbidity (including psychiatric, cardiac, metabolic disease) and mortality. CBT for insomnia (CBTI) been shown to be significantly effective in the treatment of insomnia, and current guidelines suggest CBTI as the initial treatment of choice for chronic insomnia. Although there is limited accessibility to psychologist services and CBTI programs, recent evidence suggests that self-CBT and brief primary care behavioural intervention (abbreviated CBTI) may be an effective treatment alternative. With the support of CFPC's Patient Education Grant, I hope to share a newly developed patient-physician discussion tool with evidence-based behavioural and psychological interventions for chronic insomnia. This new tool will provide information, guide discussion, create concrete goals, motivate behavioural changes, as well as provide monitoring and follow-up on the patient's sleep patterns. The education material includes actionable information on sleep hygiene, stimulus control therapy, sleep restriction therapy, as well as brief CBTI interventions. It also includes a sleep diary to follow effects of different behavioural strategies. This new tool will be open-access and printable in order to help healthcare practitioners guide patients to become an active participant in improving their sleep.

**615 The Use of Scenario-Based Simulation in Emergency Medicine Clerkship Education**

Kuan-chin Chen\*, MD, CCFP (EM); Dalia Karol; Samuel Wilson; Christopher Elliott, MD, PhD

Simulation is becoming widely adopted across medical disciplines and different medical professionals. For medical students, emergency medicine simulation has been shown to increase knowledge, confidence and satisfaction. At the University of Ottawa Skills and Simulation Centre, third-year medical students participate in simulated scenarios common to Emergency Medicine (EM) as part of their mandatory EM clerkship rotation. This simulation curriculum was added in 2016, but has not yet been evaluated. In groups of seven, medical students completed simulation sessions of the following: Status Asthmaticus, Status Epilepticus, Urosepsis and Breaking Bad News. Student confidence with each topic was assessed before and after simulation with a survey. Confidence scores pre- and post-simulation was compared with the Wilcoxon Signed Rank test. Medical student confidence with diagnosis of status asthmaticus (N = 64, p = 0.0007), status epilepticus (N = 64, p = 0.0005) and urosepsis (N = 64, p = 0.0008) increased significantly following simulation. Treatment confidence increased significantly for status asthmaticus (N = 65, p = 0.0009), status epilepticus (N = 65, p < 0.0001) and urosepsis

(N = 65, p < 0.0001). Confidence for breaking bad news was significantly increased after simulation also (N = 62, p = 0.0006). Simulation training in our EM clerkship rotation significantly increased the confidence of medical students for all examined common EM presentations. Further work will aim to understand why all scenarios improved confidence, despite variable pre-simulation confidence.

**616 DEXA (Dual-Energy X-ray Absorptiometry) Testing in Family Medicine Teaching Unit**

Benoit Heppell\*, MD, MSc; Sarah Giguere, MD; Kaoutar Gouttaya, MD; Vincent Pelland, MD

**Context:** Choosing Wisely Canada, the national voice for reducing unnecessary tests and treatments in health care, has identified Dual-Energy X-ray Absorptiometry (DEXA) testing as one of the main themes in family medicine recommendations. While Choosing Wisely recommends that DEXA is not warranted on women under 65 or men under 70 at low risk, little is known about the adequacy of DEXA's orders in family medicine teaching units. **Objective:** To determine the adequacy of DEXA's orders in a family medicine teaching unit. **Design:** Retrospective cohort study. **Setting:** Eastern township family medicine teaching unit, Sherbrooke (Québec), affiliated to Université de Sherbrooke. **Participants:** Data of a sample of patients aged between 50-80 years who performed at least one DEXA between in January 1st 2016 and December 31st 2017 were included in the study. For that cohort of patient, all DEXA performed since 2010 has been analysed. **Main outcome measures:** Adequacy of DEXA's orders during 2010-2017, and reasons for the inadequacy. Adequacy was determined according to the Osteoporosis Canada and Choosing Wisely recommendation. **Results:** A sample of 61 woman and 39 man who performed at least one DEXA were randomly selected. In total, 158 DEXA were performed. Of this number, 102 (64.5%) were ordered in adequacy with Osteoporosis Canada and Choosing Wisely recommendation. Main reasons for the inadequacy were: 1) earlier osteoporosis screenings with DEXA without indication; and 2) too frequent DEXA follow-ups. **Conclusion:** More than one third of DEXA's did not respond to Osteoporosis Canada and Choosing Wisely recommendation. Educational strategies to strengthen recommended best practices should be more widely disseminated in settings where the next generation of family medicine physicians are trained. Further research will be needed to evaluate the effectiveness of Choosing Wisely campaign.

**617 Interdisciplinarity and Chronic Non-Cancer Pain in Family Medicine Teaching Unit**

Benoit Heppell\*, MD, MSc; Wan Lu Jia, MD, MSc; Caroline Dicaire, MD; Marie-Ève Laprise, MD; Rosalie Martel, MD; David Vallée, MD; Camille Bergeron, MD; Véronique Lalancette, MD; Bruno Lefebvre, MD; Justine Mercier, MD; Audre Anne Simard

**Context:** Chronic non-cancer pain is a common and complex health issue and has important personal and social consequences. Chronic non-cancer pain requires interdisciplinary cooperation to correctly address bio-psycho-social complexity. The early application of interdisciplinarity positively favors the prognosis. **Objective:** To describe and improve interdisciplinarity for patients suffering of chronic non-cancer pain in family medicine teaching unit. **Design:** Retrospective cohort study and quality improvement project. **Setting:** Family medicine teaching unit, Sherbrooke (Québec), affiliated to Université de Sherbrooke. **Participants:** Sample of adults over 18 years with chronic non-cancer pain who visited the primary care clinic 8 times and over between July 1st 2017 and June 30th 2018, were included in the study. **Main outcome measures:** Analysis of interdisciplinary team implication and characteristics of selected populations of patient with chronic non-cancer pain. **Results:** Of the 88 patients selected, 78% were woman and median age is 50 years. Fibromyalgia and back pain are the main diagnostics in patient reporting chronic pain. 65% of patient with chronic non-cancer pain also present a mental health issue condition. From the population selected, interdisciplinarity included the participation of a pharmacist (12.5%), social worker (10%) and psychologist (6.8%). Individual interviews indicated that physicians have very little knowledge of the services offered by the interdisciplinary team to address bio-psycho-social complexity and most references are done too late after most treatment has failed. The importance of acting early in the prevention of pain chronification was also noted. **Conclusion:** Despite that chronic non-cancer pain is a complex problem, interdisciplinary intervention remains weak. Standardise tools are in development to recognize precociously patients with chronic non-cancer pain who could benefit from interdisciplinary intervention. Implementation project is actually in progress.

**618 Safe Opioid Prescribing in Primary Care**

Maya Maliakkal\*, MD, CCFP; Jadie Stone, MN, NP-PHC

**Objective:** To support the adoption of safe opioid prescribing practices for non-cancer chronic pain in primary care. **Design:** We conducted a quality improvement project at Health For All Family Health Team, Markham Ontario, looking at opioid prescribing practices including the use of an opioid agreement, urine drug screening, and clinically appropriate morphine equivalency (MEQ) over a period of 2.5 years. **Participants:** We identified a total of 205 patients with an opioid listed as an

active medication. Patients were excluded if the opioid was prescribed for an acute illness or a cancer diagnosis, or if the opioid was prescribed by an external health care provider. 73 patients met these criteria. **Intervention:** Multiple education sessions for primary care providers were held in 2017 and 2018 to increase awareness of the 2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain and to provide new tools for safe opioid prescribing. Practitioners were also encouraged to review a list of their patients who met these criteria. **Main outcome measures:** We looked at MEQ, completed urine drug screens and signed opioid agreements within 12 months before the intervention. The charts were reviewed at 6 months and 18 months after the intervention. We expected a 10% increase in the use of opioid agreements and urine drug screening, and a move toward clinically appropriate MEQ. **Results:** There was a 30% increase in the use of opioid agreements and a 20% increase in urine drug screening in the first 6 months post-intervention. There was also a significant move toward lower MEQ. However, at 18 months post-intervention, though there was still a focus on clinically appropriate MEQ, the consistency of urine drug screening and opioid agreement use had reduced. **Conclusion:** This study emphasizes the importance of frequent education and peer supports to sustain a multidimensional approach to safe opioid prescribing practices.

### 619 Identifying Health Care Needs for Street-Involved Female Sex Workers

Lauren Welsh\*, MD, CCFP; Alicia Rodrigues, MD, CCFP

Street-involved female sex workers experience significant negative health outcomes as a result of systemic factors that limit their ability to negotiate safe working conditions and access effective care. However, there remains a paucity of evidence regarding how these barriers manifest and the patient perspective on strategies for improvement. We partnered with the community organization “Maggie’s Sex Workers Action Project” to undertake a descriptive, qualitative study examining this issue. We conducted semi-structured interviews with participants and analyzed them for central themes. We found seven key concepts that play a significant role in this population’s health care experience, including structural racism and misogyny, the need for trusted relationships, the unique relationship of sex work and Indigenous health, and the ubiquity of trauma. Although many of these themes are complex in nature with barriers that are not easily overcome, several tangible areas for improvement were identified through this project. This poster will highlight central themes identified by study participants: (1) ongoing structural and systemic barriers to care, including: racism and misogyny, excessive system bureaucracy, mistrust of the system due to historical failures, and gaps in care; (2) the importance of trusted relationships in health care, especially by primary care providers; (3) the unique relationship of sex work and Indigenous health; (4) the need for adequate access to mental health and addictions supports; (5) the need for adequate access to sexual health care, including effective patient education around contraception and STI prevention/treatment; (6) the importance of addressing social determinants of health, including adequate income, adequate housing, and routes out of poverty; (7) the ubiquity of trauma in this patient population. It will explore next steps for addressing identified issues and improving care for this population.

### Medical Student

### 620 Impact of Levonorgestrel Intrauterine Devices on Breastfeeding: A systematic review

Jasneet Dhaliwal\*; Eva Knifed, HonBSc, MD, MHSc, CCFP

**Objectives:** To synthesize evidence from 1999 onwards on the impact of levonorgestrel intrauterine devices on breastfeeding outcomes. **Methods:** A systematic review was conducted by searching three scientific databases (Embase, MEDLINE, and CINAHL). Relevant primary, full text studies in the English language published from 1999 onwards were screened and abstracted in duplicate. Final studies were required to have a study population with the levonorgestrel intrauterine device. The primary outcomes of interest included breastfeeding and infant-related outcomes. **Results:** From the electronic database search, 341 articles were retrieved, and 5 were included in this review. The findings display no significant difference in breastfeeding outcomes or infant-related outcomes surrounding growth and development when compared to groups utilizing the non-hormonal copper intrauterine device. **Conclusion:** This systematic review highlights the safety of levonorgestrel intrauterine devices in terms of breastfeeding and infant-related outcomes in the breastfeeding population.

### Resident

### 621 Fasting Serum Insulin, A Novel Method of Identifying Pre-Diabetic Patients

Anshuman Saksena\*, MD; Anuraag Saksena, MD; Liliane Carchedi, MD; Scott Kish, MD; Kathryn Weston, PhD; Alfred Edward Ledner, MBChB

**Objective:** To assess the association and diagnostic feasibility of using fasting serum insulin (FSI) to screen for a pre-diabetic patient in conjunction with other patient metabolic indicators. FSI may serve as an opportunity for the primary prevention of

type 2 diabetes. **Design:** A retrospective chart review conducted over a 5-year period. **Setting:** A primary healthcare clinic in rural Australia. **Participants:** A consecutive series of patients with clinical suspicion of hyperglycaemia, insulin resistance, and elevated metabolic variables, upon first presentation, were reviewed retrospectively. All patients received care at the clinic between January 1, 2010, and September 2016 (n=288). **Main outcome measures:** The main outcomes used were patient demographics, body mass index, fasting serum insulin, fasting blood glucose, and treatment intervention type. The data was analyzed using descriptive and inferential statistics. **Results:** A total of 288 at-risk patients (aged 18 to 88) were investigated. Approximately 49% of these patients had an elevated fasting blood glucose (FBG) level, while 96% had elevated FSI levels at presentation. Defining the reference standard of diabetes as a positive fasting blood glucose ( $\geq 7$ ), the sensitivity/specificity of FSI was 95% and 3.5% respectively with a positive predictive value of 52%. Our results suggest that FSI could be an early marker of impaired glucose metabolism in comparison to FBG levels. In addition, FSI can also reliably be used to monitor patients progress through their prescribed pre-diabetic management plan. **Conclusion:** Our outcomes suggest that FSI may be a more sensitive and earlier marker for the screening of pre-diabetes. FSI may also provide a means of monitoring treatment interventions in the hopes of delaying or preventing diabetes related complications. However, further investigation with higher-level evidence is necessary to validate FSI as a reliable marker for the early diagnosis of pre-diabetes.

### Medical Student

#### 622 The Mobile Family Physician: Novel tools for clinical practice

Adam Rocker\*, MSc

The general practitioner's toolbox has remained relatively unchanged for the past 50 years. With rapid advances in mobile technology, novel tools and services have become available to family physicians. The present work aims to review smartphone- and tablet-based applications from 3 categories: Patient tools, medical education tools, and physician tools. Patient tools include take-home applications that allow individuals to self-monitor for signs and symptoms, provide education around a specific health topic, or engage in therapy; medical education tools include versatile anatomy and on-the-spot procedure review applications targeted at healthcare professionals; and physician tools include tools for visual acuity screening, hearing loss assessment, medical phrase translation, and enhanced physical examination. Applications were sourced from exposures and recommendations throughout undergraduate medical training. Of those initially identified, applications were favored for inclusion in this review if rated at  $\geq 4.0$  (out of 5.0) on the respective application marketplace. Additional factors affecting inclusion were availability on multiple platforms (e.g. iOS and Android), no-cost download, and/or novel service provision. Applications such as those covered in this review provide useful information to both physicians and patients alike, and may one day become practice standards.

### Medical Student

#### 623 Waiting Room Challenge: Increasing recruitment and awareness for organ donation

Stephanie M. Schindler\*, MSc; Paul Dhillon, MD, CCFP

**Objective:** To increase the number of registered organ donors by utilizing the waiting room of a medical clinic as a possible venue to connect with potential donors and to raise awareness about organ donation. **Setting:** Waiting room of medical clinics in communities along the Sunshine Coast. **Participants:** All patients visiting the medical clinics during the study periods were eligible to register as organ donors. **Intervention:** In the first phase of the Quality Improvement (QI) initiative, an informational poster board, outlining the most recent BC Transplant statistics and frequently asked questions, as well as organ donor registrations forms were set up in the waiting room of the Cowrie Medical Clinic in Sechelt, B.C. from September 20th until October 19th, 2018. In the second phase of the trial, from January 14th until February 14th, all clinics in communities along the Sunshine Coast were included. **Main outcome measures:** Number of new registrations in the Organ Donor Registry from the Sunshine Coast. **Findings:** During September and October 2018, 47 people registered to become organ donors. Compared to the same time period in 2017, only 42 people registered with BC Transplant, thus representing an increase of 11.9% in organ donor registrants. Moreover, at the end of the initiative, 110 new organ donor registrations from the Sunshine Coast were recorded in the BC Organ Donor Registry. **Conclusion:** This QI initiative highlights the benefits of utilizing the primary care setting to raise awareness of organ donation and to provide opportunities for interested people to become registered organ donors along with a unique challenge concept between the clinics.



## Medical Student

624 **ThyMomma: A case of myasthenia gravis during pregnancy**

Preksha Shukla\*

Myasthenia Gravis (MG) is a chronic autoimmune neuromuscular disorder that is characterized by weakness of voluntary muscle that is worsened by fatigue and improves with rest. This condition may arise from hyperplasia or tumors of the thymus, and usually presents as weakness in the muscles that control the neck, arms, legs and in more severe cases, those involved in respiration. The prevalence of MG in the general population is 1/5000 in the USA and 32/100,000 in Canada (Ontario), and it is even more prevalent in women of childbearing ages. Therefore, it can pose a unique challenge for female patients with MG who become pregnant, and one that requires an interdisciplinary effort involving multiple different medical specialties. The case presented here is of a 37-year-old female G2P1001 with a 9-year history of MG who presented to labor and delivery at 34 weeks of gestational age after non-reassuring fetal tracings, and later went on to develop preterm premature rupture of membranes. This clinical inquiry will aim to showcase existing literature regarding MG during pregnancy, clinical challenges over the course of the pregnancy, as well as, current guidelines to effectively manage such cases.

## Medical Student

625 **Risk Factors and Epigenetic Markers of Left Ventricular Diastolic Dysfunction**

Wei Wang\*, PhD; Yi Zhang, MD, PhD; Runzi Wang; Yeshaswi Shrestha; Yawei Xu, MD, PhD; Luying Peng, MD, PhD; Jie Zhang, PhD; Jue Li, MD, PhD and Lijuan Zhang, PhD

**Objective:** Left ventricular diastolic dysfunction with preserved ejection fraction (LVDD-PEF) is an early manifestation but poorly understood in the process of heart failure. This study was designed to describe determinants and epigenetic markers for timely identifying LVDD-PEF in a general population. **Design:** An observational study. **Setting and participants:** A community-based study in residents over 65 years was conducted in Shanghai, China, from June 2014 to August 2015. Echocardiography was performed to diagnose LVDD-PEF. DNA methylation by whole-genome bisulfite sequencing was used to determine those potential epigenetic markers contributing to LVDD-PEF in 10 randomly selected LVDD-PEF subjects and 5 age- and sex- matched controls. Of 1568 participants, a total of 177 participants (11.3%) were diagnosed with LVDD-PEF, and females showed higher prevalence than males (15.0% vs. 6.5%,  $P < 0.001$ ). **Results:** Multivariate logistic regression analysis indicated that female sex (OR 2.46, 95%CI 1.47-4.13), body mass index (BMI) (OR 1.09, 95% CI 1.04-1.14), pulse pressure (PP) (OR 1.03, 95% CI 1.01-1.05) and carotid intima-media thickness (CIMT) (OR 4.20, 95% CI 1.40-12.55) showed a significant association with LVDD-PEF. Overall, 638 CpG sites were differentially methylated in LVDD-PEF group compared to non-LVDD-PEF group ( $P < 0.001$ ); 242 sites were significantly hypermethylated (covering 238 genes) and 396 sites were significantly hypomethylated (covering 265 genes). Three genes were identified to be associated with heart disease, including regulator of G-protein signaling 10 (RGS10), calcium release activated channel regulator 2A (CRACR2A), and actin gamma smooth muscle 2 (ACTG2). **Conclusion:** Our findings limited female, BMI, PP, and CIMT were independent predictors for LVDD-PEF in the community-dwelling elderly population. Regulation of DNA methylation including RGS10, CRACR2A and ACTG2 might be crucial for LVDD-PEF.

## Resident

626 **Improving Age Cohort Hepatitis C Screening at the TW FHT**

Sophie Bourgeois\*, MD; Maelynn Burrige, MD; Rebecca Shalansky, MD; Ruphen Shaw, MD; Jeff Kwong, MD, MSc, CCFP, FRCPC

**Objective:** To increase hepatitis C screening in the Toronto Western Family Health Team in patients born between 1945 and 1975 by 15% over a period of five months based on the Canadian Liver Society's recommendation that this age cohort should be screened once in their lifetime for hepatitis C. **Design:** Quality improvement project with both retrospective chart review and mixed qualitative/quantitative design. **Setting:** Toronto Western Family Health Team. **Participants:** Family physicians, nurse practitioners and residents at TW FHT. **Intervention:** Our change cycles included adding a prompt for providers on our EMR system (PS Suite), an electronic patient questionnaire and multimedia patients resources. **Main outcome measures:** Our main outcomes measures were the number of patients screened for hepatitis C with a HCV antibody blood test. **Results:** Four months prior to the intervention, the testing rates of Hep C averaged 15.5 patients screened per 30 day period. During the intervention period, the average number of patients tested was 85.25 per 30 day period over 4 months. This is a 450% increase in testing incidence. **Conclusion:** The aim of increasing age based screening rates by 15% over the period of 5

months was likely surpassed, but further chart review to assess the reasons each test was ordered is needed to confirm this. The continuation of higher testing rates with each intervention is likely due to both the introduction of a new intervention and the continuation of the preceding interventions, causing an additive effect. From the results of our post intervention survey, the PS Suite prompt was the most effective in increasing provider's screening. In order to determine if age cohort screening of Hep C should be implemented permanently at the Toronto Western FHT, the cost-benefit analysis of age cohort screening must be critically considered within the greater context of the Canadian healthcare system.

### Resident

#### 627 Opioid Prescription in Family Medicine Teaching Unit

Audrey Dubé\*, MD, PhD; Cédrik Poirier, MD; Jamie Chiasson, MD; Véronique Malenfant, MD; Benoit Heppell, MD, MSc; Carolle Bernier, MD, MA; Claude Arsenault, MD

**Context:** During the last quarter century, opioid prescription has dramatically increased, and Canadians are the second highest users per capita in the world. Unfortunately, the number of deaths secondary to opioid use is also rising. In 2017, Canadian opioid prescribing guideline has been published to provide clinicians a safe and effective way to prescribe. **Objective:** To describe opioid prescription in a Canadian family teaching unit. **Design:** Retrospective cohort study. **Setting:** Family medicine teaching unit, Sherbrooke (Québec), affiliated to Université de Sherbrooke. **Participants:** Sample of adults over 18 years who received an opioid prescription between November 1st, 2015, and August 1st 2017, were included in the study. Patients with diagnosis of cancer and those having only one opioid prescription to treat acute and temporary conditions were excluded. **Main outcome measures:** Medical conditions associated with opioid prescription, characteristics of the prescriptions, misuse risk factors, and characteristics of patients. **Results:** Eighty patients were randomly selected. Back pain and arthrosis represented the main clinical indications for which opioid were prescribed. Hydromorphone, morphine, oxycodone, and fentanyl were the most prescribed drugs. Daily morphine equivalent doses were 124 mg for patient receiving fentanyl, and 115 mg for those who received oxycodone. **Conclusion:** Opioids are prescribed for a wide range of diseases with varying doses. Fentanyl and oxycodone are often prescribed beyond the maximum daily dose recommended by the 2017 Canadian opioid prescribing guideline, and in presence of misuse risk factors that increase risk of adverse effects. To improve opioid prescription in our Family medicine teaching unit, we developed a pamphlet to help primary care physicians and residents to evaluate risk of opioid misuse, and to safely prescribe opioid. These results may contribute to help tailor efforts to promote more appropriate opioid prescriptions and incorporate the new guideline recommendations into practice.

### Resident

#### 628 Documenting the Drift Towards Specialization Within Family Medicine

Jordyn Lerner\*, MD, CCFP

There is a drift towards specialization within family medicine. The profession that was defined by providing comprehensive care is no longer doing that. Canadian family physicians are receiving additional training in specific areas of medicine and narrowing their scopes of practice accordingly. Reasons for the drift range from personal reasons of the individual family physician to pressures from the health system at large. Some applaud the drift as family physicians responding to the needs of their communities, while others see the drift as the dissolution of family medicine. This poster presents a literature review of the drift towards specialization within family medicine. The poster documents the drift, with particular focus on the period following the introduction of certification in emergency medicine. The poster presents the factors that encourage specialization within family medicine. Finally, the poster discusses the response of relevant pressure groups, including the CFPC, to the drift. The fact is that there is a drift towards specialization within family medicine in Canada. If we collectively as family physicians are going to deal with the drift, we need to be aware of the drift, what's driving it, and what the responses have been to date.

### Resident

#### 629 Missed Contraception: A novel patient handout

Emilie Ma\*, MD

Contraception adherence and missed doses are a common problem with up to 60% of patients reporting irregular use. Although a number of guidelines and algorithms exist for steps to take in the event of missed hormonal contraception, these instructions are often targeted to doctors and perceived as too complex by women who consult them. Current patient resources still contain a large amount of medical jargon and are text-based with little graphics. As a result, patients are

dependent on healthcare providers to instruct them on what to do following a missed contraceptive dose, which leads to unnecessary delays. Easily accessible patient information are desperately needed to avoid large emotional, social and financial impacts on our patients. My objective is to share a newly developed patient handout, supported by CFPC's Patient Education Grant, to better inform patients on the management of missed or delayed hormonal contraception. The educational material is freely accessible to patients and physicians, and includes interactive information on the combined pill, progestin-only pill, patch, ring and injection. Based on Society of Obstetricians and Gynecologists of Canada (SOGC)'s recommendations, the patient handout includes information on what to do when a patient misses one or multiple hormonal contraceptive doses. It will suggest alternative contraceptive options for patients who frequently miss doses, and instruct patients how to seek emergency contraception in a timely manner when appropriate. This open-access printable patient handout can be easily shared by physicians during patient encounters, especially when prescribing new contraceptive methods, and will enable patients to take charge of their own health.

## Resident

### 630 Family Physicians' Familiarity With the ACR Appropriateness Criteria® (AC) Guidelines

Alireza Rahimifar\*, MD; Marco Essig, MD, PhD, FRCPC; José François, MD, CCFP; Behnoush Mortazavi, MD

**Objective:** a) assess family physicians' familiarity with the ACR-AC guidelines; (b) examine their experiences and attitudes concerning ordering advanced imaging exams; (c) explore their perceptions of how to improve family physicians' understanding of ACR-AC guidelines. **Design:** Survey. **Setting and Participants:** 55 Family Medicine physicians practicing in academic and non-academic settings and Family Medicine residents. **Intervention:** To complete a 16-item electronic survey. Statistical analyses were performed by using the  $\chi^2$  test and analysis of variance. **Results:** 55 responses were obtained. The majority 92% (50 of 55) family physicians and residents, 92% had never used ACR-AC guidelines. More than half (53%) preferred to refer their patients to a specialist/sub-specialist to obtain necessary imaging exam such as abdomen/pelvis CT with contrast, or brain MRI, even they were certain that the sub-specialist' next step would have been obtaining imaging exams. The majority (95%) reported that this may cause significant delays in the patient's care, and 82% perceived that this leads to higher healthcare costs. Half (49.5%) expressed concerns about being judged by sub-specialists or radiologists for "lack of knowledge about exam appropriateness". Finally, the majority 93% were not confident using ACR-AC for requesting imaging exams. They stated the best way to increase their understanding of ACR-AC would be receiving informational videos (36%), discussions in CME activities and seminars. (29%). **Conclusion:** Many family physicians were not confident ordering required imaging exams such as abdomen/pelvis CT with IV contrast or brain MRI. The majority were not familiar with the utility of ACR-AC guidelines. Family physicians, however, are willing to receive information in the form of videos, CME activities, seminars, and emails to improve their understanding about ACR-AC guidelines.

## Resident

### 631 Family Physicians' Perspectives on Artificial Intelligence (AI) in Family Medicine

Alireza Rahimifar\*, MD; Marco Essig, MD, PhD, FRCPC; José François, MD, CCFP; Behnoush Mortazavi, MD; Arman Rahimifar, BSc st

**Purpose:** a) to explore family physicians' views on the role of AI in family practice. b) to examine their understanding about utilizing the AI algorithms and applications. c) to examine their attitudes towards the validity and utility of AI applications. **Design:** Survey. **Setting and Participants:** 55 family physicians and family medicine residents who responded to the survey. **Intervention:** To complete a 14-item anonymous survey. **Results:** 55 family physicians and residents responded to the electronic survey. 54% (35 of 55) perceived that AI would be capable of screening patients, offering diagnosis and optimizing treatment plans, and 43% speculated that AI would likely outperform family physicians in these tasks. None of the respondents (0 of 55) reflected that AI would replace primary care providers. 100% (55 of 55) believed that AI would transform family practice by providing further assistance to family physicians rather than replacing them. A substantial majority, 96% (53 of 55) deemed important to ensure future AI applications to be validated, accurate, and capable to perform well across clinical facilities and demographic populations before their utilization in practice. The same number emphasized that family physicians should become more involved in monitoring AI algorithm performances in clinical practice, and should provide developers with their feedbacks in order to improve AI algorithms and applications. Finally, the majority (93%), were inclined to receive formal education about AI and machine learning, and 85% believed that family medicine residents should receive formal training regarding AI and its applications. **Conclusion:** The majority of family physicians reported that AI would transform family practice, and will function to assist family physicians in their role. They strongly deemed it important to ensure AI applications would perform accurately across clinical facilities and demographic populations. Family physicians were inclined to receive formal education and training regarding AI applications in family medicine.

## Friday, November 1 / Vendredi 1 novembre

All poster presentations take place in Ballroom D, Level 1, Vancouver Convention Centre, West Building

## 701 A Primary Care Network-Based Clinical Pathway For Decision-Making Capacity Assessment

Lesley Charles\*, MBChB, CCFP (COE); Jacqueline Torti, PhD; Jasneet Parmar, MBBS, MCFP (CAC); Suzette Brémault-Phillips, PhD; Bonnie Dobbs, PhD; Peter George Tian, MD, MPH; Marjan Abbasi, MD, CCFP (COE); Sheny Khera, MD, MPH, CCFP (COE); Karenn Chan, MD, MSc

**Context:** Dementia and other chronic conditions can compromise a person's ability to make independent personal and financial decisions. With an increasingly ageing population, the incidence of dementia is expected to increase, as will the number of persons who may require decision-making capacity assessments (DMCAs). **Objective:** To develop a DMCA Clinical Pathway for implementation and use by interprofessional health care teams in primary care networks (PCNs) with the goal of integrating DMCA processes and assessments into the "Medical Home". **Design:** A descriptive qualitative study design was used to develop a DMCA Clinical Pathway for use in PCNs by adapting the clinical pathway previously developed and utilized in the acute care setting. Focus groups were conducted with key stakeholders to obtain their feedback on the applicability of the adapted DMCA Clinical Pathway in the primary care context. **Setting:** A Primary Care Network (Edmonton). **Participants:** Key stakeholders, including family physicians and primary care allied health professionals. **Findings:** Three focus groups (total n=10) were conducted. Inconsistencies and a lack of standardization regarding DMCA processes and approach within PCNs were identified by participants. Upon review of the proposed DMCA Clinical Pathway, participants identified a number of strengths including the attractiveness and simplicity of the visual algorithm. They also offered suggestions for further revision including adjusting the language to be more primary care-centric. With further education and training, participants felt that the proposed PCN DMCA Clinical Pathway would be a value added approach to improving teamwork around DMCAs within PCNs. **Conclusion:** A DMCA Clinical Pathway for use in PCN "Medical Homes" has the potential to streamline DMCA processes, improve clarity, consistency, and standardization of DMCAs, as well as facilitate determination of next steps that support least intrusive and least restrictive patient outcomes.

## 702 Assessment of Cognitive Calming In Acute Care Simulation Scenarios

Filip Gilic\*, MD, CCFP (EM); Elizabeth, Blackmore, MD, CCFP (EM); Steve Slobodian, MD; Alex Cormier

Acute stress and cognitive load can adversely affect learning and performance. Psychological skills training has long been used to improve performance in a variety of fields. "Beat the Stress Fool" (BTSF) has been proposed as a simple cognitive calming method specifically targeted to medical acute care. It consists of a breathing exercise, positive self talk, visualization and a focus word. "Nightmares-FM" is a two-day acute care simulation training program for Queen's family medicine residents at the start of their residency. Resident feedback consistently indicated that residents experience high levels of stress and cognitive load during this course. We tested the BTSF protocol to see if it would decrease the cognitive load experienced by the residents. Fifty residents participated in the study, randomly divided into two cohorts. We assessed each cohort at baseline for the presence of international medical graduates (IMGs), self-efficacy in acute care beliefs, as well as previous simulation experience. Cohort A did not use the BTSF calming method before going into an acute care scenario, while Cohort B did. Immediately after a scenario, the team leader noted their average cognitive load using the validated 9-point Paas scale. Each cohort did the same set of 16 acute care scenarios. Cohort A reported significantly higher average cognitive loads than the Cohort B when IMGs were included group (mean 6.33, SD  $\pm$ 1.19 vs mean 7.04, SD  $\pm$ 1.13,  $p < 0.004$ ). The difference held when IMGs were excluded from the analysis (mean 6.38, SD  $\pm$ 1.57 vs 6.95, SD  $\pm$ 1.33,  $p < 0.041$ ), although the effect size was somewhat smaller (0.61 points vs 0.47, Cohen's d). BTSF protocol produces consistent decreases in average cognitive load in first-year family medicine residents undergoing acute-care simulation training. It is a simple method that can bring calmness to trainees in stressful scenarios and potentially improve performance.

## 703 CANCELLED

## 704 Supporting Implementation of the EMR in Newfoundland and Labrador

Lisa Fleet, MA; Pamela Snow\*, MD, FCFP; Vernon Curran, PhD

**Context:** In 2017/2018, the Office of Professional and Educational Development (OPED), Faculty of Medicine, Memorial University collaborated with the Newfoundland and Labrador Centre for Health Information (NLCHI), the Newfoundland and Labrador Medical Association (NLMA), and eDOCSNL to explore physician and administrator perceptions and



experiences of using an electronic medical record (EMR) and specifically, the provincial EMR (Med Access). **Objective:** To identify physicians' educational needs before implementing/adapting to using an EMR in practice. **Design:** Mixed-methods; explanatory design. **Setting:** Newfoundland and Labrador. **Participants:** N=133 current Med Access users; convenience sample of non-users (NL physicians); N=4 administrators/practice advisors. **Intervention:** Literature review; environmental scan; online survey-questionnaire; semi-structured interviews. **Main outcome measures:** Development of a CPD strategy to address identified knowledge gaps and educational needs. **Results:** Forty-seven (N=47) current Med Access users responded to the survey (response rate 35.3%). There were N=58 non-Med Access user respondents and N=2 interview respondents. The majority of survey respondents, regardless of EMR experience, recognize the potential value of using an EMR in practice. Benefits include continuity of patient care, improved quality of patient care, access to patient resources, improved patient safety, and improved efficiency and workflow. Current Med Access users report concerns related to patient workflow and patient care. Non-Med Access users report perceived challenges around workload and increased time for data entry. Interview respondents suggest that physicians tend to underestimate the adoption process and potential learning curve of using an EMR in practice. **Conclusion:** The data collected highlighted the perceived and unperceived educational needs of physicians related to using Med Access in practice and supported the development of a CPD strategy to address these needs. Some suggestions for training included: the provision of templates, referral and consultation tools; and ongoing support for workflow and transition.

**705 Factors That Impact Frequency of Resident Feedback - Work in progress**

Eric Wong\*, MD, MClSc (FM), CCFP, FCFP; Christina Cookson, MD, CCFP

**Context:** The family medicine residency program at Schulich School of Medicine & Dentistry, Western University has been using electronic field notes as part of its resident assessment system since 2014. Each of our field notes collect information on the competencies being assessed, the type of assessments that were carried out (e.g. case-based discussion, direct observation, chart review, etc.) and the feedback that was provided. Information on each field note is recorded and organized in an electronic database. **Objective:** To determine whether types of assessments (e.g. direct observation, case-based discussion), skill dimension, clinical setting where assessment took place, and author of field note (faculty vs. resident) influence frequency of feedback provided to residents suggesting a change in behaviour. **Design:** A retrospective analysis of the collected field notes data between July 2014 and June 2016. **Setting:** A distributed family medicine residency program in Southwestern Ontario. **Participants:** All PGY1 and PGY2 residents enrolled between July 2014 and June 2016. **Main outcome measures:** Frequency of feedback suggesting a change in behaviour. **Results/findings:** Not yet available. **Conclusion:** Not yet available.

**706 Projet SOINS Diabète, travail en cours**

Géraldine Layani\*, MD, MSc; Brigitte Vachon, PhD; Arnaud Duhoux, PhD; Pierre-Marie David, PhD; Janusz Kaczorowski, PhD; Marie-Thérèse Lussier, MD, MSc; Aude Motulsky, PhD; Isabel Rodriguez, MD, MSc; Isabelle Brault, PhD

**Contexte :** Le diabète représente l'une des urgences sanitaires du 21eme siècle. Le Chronic Care Model (CCM) propose une approche intégrée d'amélioration continue pour cette maladie. Malgré des barrières présentes dans le système de santé, les avancées récentes en soins de première ligne au Québec sont propices à la mise en oeuvre du CCM et à l'optimisation des pratiques actuelles dans les GMF. **Objectif :** Documenter l'implantation d'une trajectoire de soins (TdeS) intégrés combinant les composantes du Chronic Care Model (CCM) afin de développer un guide d'implantation de cette TdeS. **Type d'étude :** Basée sur le Model for Improvement intégrant la pratique réflexive et les cycles Plan-Do-Study-Act (PDSA). **Lieux :** Deux GMF-U. **Participants :** Les professionnels des GMF-U et d'un GMF, leur clientèle diabétique et des patients partenaires. **Intervention/instrument :** 1) la formation continue des professionnels et des patients partenaires, 2) l'extraction des données DMÉ 3) l'utilisation d'une intervention de feedback, sous forme de rapport, 4) la gouvernance du projet par un comité local d'amélioration continue de la qualité, 5) un comité de pilotage incluant des chefs GMF pour s'assurer de la mise à l'échelle de la TdeS. **Paramètres à l'étude :** L'efficacité sera évaluée par les indicateurs de qualité de l'INESSS définis pour le diabète, les niveaux d'autogestion et de détresse liée au diabète et les coûts associés aux visites à l'urgence, hospitalisations, et chez les médecins. Les changements mis en place lors de l'implantation de la TdeS seront évalués par les données du DMÉ. L'adoption sera évaluée par des entrevues et sondages en ligne auprès des participants. Le processus d'implantation sera documenté par l'utilisation d'outils de suivi et de description détaillée des cycles PDSA. **Conclusion :** Ce projet proposera une approche innovante personnalisée et pluridisciplinaire de planifier le suivi adapté des personnes diabétiques dans les GMF.

Medical Student

707 **Primary Care Experiences: Women Living with HIV in Saskatoon**

Veronica Hammer\*; Kali Gartner, MD

**Objective:** We aimed to explore the illness experiences of women living with HIV in Saskatoon at West Side Community Clinic (WSCC) and bring their voices forward in an effort to identify areas of improvement and action items to further promote quality development of health care services in the community. **Design:** Researchers utilized Participatory Action Research (PAR) and Meaningful Involvement of People Living with HIV/AIDS (MIPA) frameworks to conduct two semi-structured focus groups. Findings from the first focus group were member checked at the second to allow the women to build upon previous narratives and develop themes. **Setting:** The consent process, as well as the focus groups, took place in a private room at WSCC. **Participants:** Inclusion criteria for the study included women who self identify as being diagnosed with HIV, past or present clients of WSCC that had received health care services in some capacity, and women who were interested in sharing their past health care experiences. Two focus groups were conducted with a total of 12 women participating in the study. **Findings:** The women expressed a greater need for HIV education in the community, as they often found themselves having to assume the role of educator. A comparison between clinic and hospital care also arose, where the women felt stigmatized in a hospital setting which deterred them from seeking care. A need for support groups for women living with HIV was expressed. **Conclusion:** The gaps in care expressed by the participants in this study showcase a need for further programming and community partnerships to promote and develop patient and family-centered health care values in Saskatoon. We hope that this study has brought attention to these women's narratives while providing a starting point for future research in this area.

Medical Student

708 **Can A Brief Intervention Build Preschoolers' Resilience? Work In progress**

Susan P. Phillips, MD, CCFP; Rukaiyah Lakkadghatwala\*

**Context:** Positive parenting builds the social and emotional skills that foster children's resilience and long-term health. Parenting programs are effective but require significant time and resources and are generally only offered to 'high-risk' families. Routine primary care well child checks (WCCs) present an unrealized opportunity for promoting parenting that builds children's social and emotional health. **Objective:** To develop the most valuable and evidence-based brief clinical 'add-on' to the 4-6 year old WCC to help parents enrich children's social and emotional health. **Design:** A two-round Delphi process with experts identified via a systematic review of scholarly and grey literature. **Setting:** Primary care. **Participants:** International physicians, psychologists, early childhood educators, and parenting program developers. **Outcome measures:** Round 1: Structured one-on-one interviews explored: 1. the merit of an intervention, 2. information and strategies worth sharing with parents, and 3. ideal intervention methods. Round 2: An online questionnaire will ask experts to review collated round 1 responses and rate the value of each suggested strategy and method. **Results:** All 34 identified experts agreed to participate and were interviewed in round 1. There has been consensus that parenting that cultivates social and emotional strengths is important, can be modelled, and might be fostered by brief primary care interventions highlighting parenting strategies. Experts emphasized helping parents build children's emotional regulation skills and positive parent-child relationships. They identified parenting strategies to help children regulate emotions, foster growth mindsets, and establish positive parent-child interactions. Experts recommended sharing strategies with all parents during WCCs and facilitating goal setting. Round 2 will establish a consensus regarding the most valuable parenting strategies and ideal intervention method. **Conclusions:** Social and emotional skills are malleable and critical to health. This consensus-building process will inform the development of a primary care intervention to foster children's social and emotional development that will be small-scale tested.

Medical Student

709 **Development of Multipurpose 3D-Printed Fetal Thorax for Treatment of Pneumothorax**

A. Ralhan\*; J. Emberley; T. Lea; S. Mroz; A. Dubrowski

**Context:** Pneumothorax leads to serious complications including mortality in neonates. Due to the lack of neonatologists in rural communities, pneumothorax is inevitably handled by rural family physicians with no, or little training. Simulation based training helps in the development and maintenance of such rare skills, however the current simulators are costly and not realistic. **Objective:** Using 3D printing, rapid prototyping and expert feedback, the purpose of this study was to develop and provide initial face validity for an inexpensive simulator for needle decompression and chest tube insertion in

neonates. **Design:** A simulator was constructed using information from a CT scan, open source models and 3D computer aided design (CAD). The components were designed using a mesh editing software (Meshmixer) and a 3D CAD software (Fusion 360). The Ultimaker 3 3D printer with slicing software (Cura) was used to print all hard tissue elements, while soft tissues were cast with silicone in a 3D printed mold. An iterative design process was followed with changes incorporated by expert suggestions. **Results:** Acceptable face validity was achieved after 3 progressive versions. The first iteration required changes in the pliability of the sternum and ribs and a more accurate sizing of the boney thorax. The second iteration required inclusion of skin layer, re-positioning of scapulae, inclusion of the mediastinal structures, and augmenting the size of the pneumothorax. **Conclusions:** With the initial support for face validity, it is expected that future content and construct validation of this inexpensive, multipurpose thorax of a newborn infant will support its efficacy for rural family doctors that may need to treat a tension pneumothorax in an emergent setting. Further iterations of this model could include more accurate musculature, simulated vasculature and adaptations to contain other newborn pathologies.

## Medical Student

### 710 A Community-Centred Approach to Group Health Education

Rupa Patel, MD; Rukaiyah Lakkadghatwala\*; Emma E.M. Spence\*; Meghan O'Leary; Madelaine Gierc, PhD, MPH

**Context:** Constrained resources, time, and training limit primary care providers (PCPs) from delivering health education (HE) that is accessible, effective, and informed by patient needs. Group HE is an innovative approach to address these limitations. **Objective:** To pilot and evaluate a community-centred approach to group HE that is informed by patient feedback. **Design:** Mixed methods evaluation of the approach via surveys and focus groups. Thematic qualitative data analysis. Statistical quantitative data analysis. **Setting:** Kingston Community Health Centres (KCHC). **Participants:** KCHC patients, PCPs, and students in medicine and clinical psychology. **Intervention:** A two-part community HE needs assessment was conducted. Part 1: A PCP focus group highlighted an unmet need for sleep hygiene (SH) education. Part 2: 31/38 patient needs assessment surveys substantiated this need and identified barriers and facilitators to HE program participation. An existing evidence-based SH workshop was modified based on PCP consensus and patient surveys and was collaboratively delivered by PCPs and students. **Outcome measures:** Pre- and post-workshop surveys collected participant feedback and assessed sleep quality and SH knowledge. Post-workshop student and PCP focus groups were conducted. **Results:** Participant (n=12) pre- and post-workshop surveys demonstrated improved sleep (71% improved falling and staying asleep, 57% improved sleep satisfaction) and increased SH knowledge. All participants expressed interest in future workshops. Participants valued participation facilitators (e.g. childcare) and opportunities to connect with patients with similar experiences. Focus groups (n=8) indicated increased insight into community needs, psychoeducation, SH, and HE programming. PCPs noted greater attendance than other programs, and attributed this to the community-centred approach. Student-PCP collaboration addressed resource, time, and training limitations. **Conclusions:** This community-centred approach to group HE identified and addressed a community HE need. This is the new approach to HE programming at KCHC and could be piloted at other health centres to address HE needs.

## Medical Student

### 711 Predictive Value of Mean Platelet Volume in Unstable Angina

Yingqian Zhu\*, MD; Hua Jiang\*, MD, PhD

**Objective:** To study the predictive value of mean platelet volume (MPV) as well as other platelet associated indices for unstable angina (UA). **Design:** This study was conducted as a prospective observational study between November 2018 and February 2019. **Setting:** This study was conducted in Shanghai East Hospital, Tongji University School of Medicine. **Participants:** A Total of 103 elderly patients in suspected UA with chest pain were enrolled. They were divided into UA(n=78) and non-coronary heart disease(CHD) group(n=25) by the result of coronary angiography (CAG). UA was defined as electrocardiographic (ECG) ST-segment depression or prominent T-wave inversion and/or positive biomarkers of necrosis in the absence of ST-segment elevation, and more than 50% diameter reduction with coronary defined by CAG. The non-CHD group contained patients with normal coronary arteries detected by CAG. Patients with acute myocardial infarction, myocarditis, cardiomyopathy, rheumatological disease, hepatic or renal failure, hematopathy, tumor, shock were excluded. No patient was on anticoagulant or antiplatelet drug therapy (including aspirin) at the time of admission. **Intervention:** A physical examination, CAG and ECG were performed. Blood was sampled for study tests (including MPV and troponin assays). **Main outcome measures:** The level of MPV, the other platelet relevant parameters and CAG results of coronary artery lesions. **Results:** The receiver operating characteristic curve analysis showed Area under curve(AUC) of MPV predicting UA was 0.771[95% CI 0.666-0.876, P = 0.01], the optimal cut-off point was 10.55fL, with 71.1% sensitivity

and 72% specialty. The AUC of Platelet distribution width(PDW) predicting UA was 0.734 [95% CI 0. 619-0. 850 , P = 0. 01], the optimal cut-off point was 11.55%, the sensitivity was 80.3%, and specialty was 62.5%. **Conclusion:** The level of MPV and PDW can be taken as predictive indicators for coronary artery lesions in patients with unstable angina.

**712 Best Foot Forward: The path to comprehensive diabetes care**

Andrea Goncz\*, NP-PHC, MN; Leigh Caplan\*, RN, MA, CDE; Alison Culbert, MD, CCFP; Debbie Elman, MD, CCFP; Marsha Feldt, RD, CDE; Dale Findlay, RN, CDE; Corrie Procak; Jane Smart, RN; Melissa Wynter

**Background:** Evidence shows that foot complications, including ulcers, infection, peripheral neuropathy, peripheral arterial disease and amputation, are a major cause of morbidity and mortality in people with diabetes, and contribute to an increased burden on the health care system. In Canada, only 50% patients with type 2 diabetes have a foot assessment done annually; our primary care team was not far off with an estimated 40% completion. Patients receiving an annual foot assessment with a validated evidence-based tool as part of their routine diabetes care is an important component in the prevention of secondary complications and overall diabetes care. **Methods:** An interprofessional primary care team was assembled to address the status of annual foot assessments being done in patients with type 2 diabetes in our Family Health Team (FHT). Through an environmental scan it became apparent that more than just a validated foot assessment tool was required for team buy-in, implementation, adoption and quality patient care. Thus, the team decided to develop a standardized evidence-based diabetes visit stamp, adapted validated foot assessment tool, and a comprehensive diabetes care toolbar within our EMR. Key stakeholders were engaged to test prototypes and refine the tools prior to implementation. Multiple forms of unit-wide communication were undertaken to disseminate and demonstrate the developed tools. **Results:** Preliminary results of the first two months of implementation revealed 100% of the diabetes visits used the standardized diabetes visit stamp; 75% of these visits had a documented foot assessment with the developed adapted validated tool, representing 24% of our total patient population with type 2 diabetes. Data collection will continue over a 12-month period. **Conclusions:** An interprofessional team collaborated to identify gaps in diabetes care in our FHT and successfully developed and implemented three EMR tools to improve overall diabetes care.

**713 Assessing Calgary Family Medicine Resident Comfort With Prescribing Buprenorphine-Naloxone**

Meera Grover, MD; Todd Hill\*, PhD

**Context:** There is a current opioid overdose crisis in Canada. Family physicians are expected to be prescribers of buprenorphine-naloxone for first-line treatment of opioid use disorder. Family medicine residents will soon be on the front lines of this crisis and may not be comfortable without adequate training. Our purpose was to determine Calgary Family Medicine resident comfort levels with prescribing buprenorphine-naloxone and their perceived barriers to this. **Design:** An online survey was distributed to family medicine residents through the Department of Family Medicine Newsletter and resident Facebook groups over a 4 week period. Results were collected and analyzed by the University of Calgary Department of Family Medicine research team. No intervention was performed. **Setting/participants:** Calgary Family Medicine Residents were able to voluntarily access an anonymous online survey. This survey went out to all Calgary Family Medicine Residents (in rural and urban programs) in both R1 and R2 years, not including R3 enhanced skills residents. **Results:** 55 residents responded to the survey. 82% of survey respondents did not feel comfortable prescribing buprenorphine-naloxone. 86% of residents were aware that buprenorphine-naloxone was first-line therapy for opioid use disorder. Residents reported feeling significantly more comfortable prescribing buprenorphine-naloxone if they had previously prescribed (p=0.002) or seen a preceptor prescribe (p<0.001) (Fisher's exact test). The most common barrier to resident comfort was 'Preceptors don't prescribe' (78% of residents). Residents who had seen a preceptor prescribe reported fewer barriers to prescribing (p=0.050). **Conclusions:** This study demonstrates that a significant majority of residents did not feel comfortable prescribing buprenorphine-naloxone regardless of year of training and despite knowing that it was appropriate for primary care. It showed that residents perceive lack of preceptor prescribing as the most common barrier they face to feeling comfortable.

**714 Physician Perceptions of Adverse Childhood Experiences History-Taking in Maternity Care**

Karolina Huartson, MD, MSc; Todd Hill\*, PhD, MSc; Teresa Killam, MD, MEd, CCFP, FCFP

**Objective:** To explore perceived physician barriers & facilitators to Adverse Childhood Experiences (ACEs) history-taking at a low risk maternity clinic in Calgary. **Design:** A qualitative descriptive method was used; including a thematic analysis of semi-structured interviews. The interviews were analyzed by two research team members. **Setting:** The study took place in a low risk maternity clinic in Calgary, Alberta. **Participants:** Ten female family physicians participated in the study. The majority of participants were age forty and older and the average years of practice amongst the participants was seventeen. **Findings:**



Four main themes emerged from the study; including the presence of a physician champion who piloted ACEs history-taking prior to clinic implementation; full clinic buy-in with support from allied health; initial lack of physician comfort with trauma-informed care; and cultural limitations of the ACEs questionnaire. **Conclusion:** The findings of this small qualitative study suggest that family physicians working with maternity care patients can incorporate ACEs history-taking into their practice. Although there are several barriers to implementing this practice, they can be overcome with the support of a strong champion and clinic support. The positive impact on the patient-physician relationship is an important potential implication.

**715 Integrating and Supporting Health Professional Educators in Family Medicine**

Deborah Kopansky-Giles\*, DC, FCCS, MSc; Judith Peranson, MD, MPH, CCFP, FCFP

**Context:** The transformation of teaching units into interprofessional (IP) teams has created opportunities for non-physician teachers (Health Professional Educators - HPEs) to take on teaching roles in Family Medicine (FM). The integration of HPEs has historically been on an informal basis, with implications for the quality of education experienced by both learners and teachers. **Objective:** In 2015, the University of Toronto DFCM launched an innovative program to formally recognize, support and better integrate the role of HPEs across departmental activities, to facilitate professional development of HPEs and Status Only faculty appointments. **Design:** Using an HPE-family physician co-leadership model, year 1 to year 3 objectives and deliverables were established through environmental survey and stakeholder consultations. Processes and outcomes of the HPE Program were evaluated utilizing Stufflebeam's CIPP model. **Setting:** University of Toronto DFCM (all 14 teaching sites). **Participants:** Department managers, faculty development site leads, health professional educators, faculty appointments administrators. **Year 1 – Year 3 Main Outcome measures:** Identification of DFCM HPEs; Development of a Community of Practice; Provision of faculty development opportunities; Facilitation of HPE faculty appointments **Results/findings:** Inclusion of HPE objectives into DFCM's 2015-2020 strategic plan; 220+ HPEs identified across 14 sites; Creation of HPE faculty appointments Guideline; Increased # of faculty applications, 21 HPE faculty appointments; Integration of co-leads into faculty development and other DFCM committees; 127 HPEs in Community of Practice; Workshops at 8/14 sites, increased professional development offerings; 7 Scholarly conference presentations; Grant application for HPE needs assessment. **Conclusion:** This initiative has resulted in a number of successful outcomes, including recognition and inclusion of HPEs in the DFCM at U of T, increased faculty appointments, and a growing Community of Practice. Next steps include work on best practice IP teaching, HPE scholarship, and research to better understand facilitators and challenges to successful HPE teaching and integration.

**716 Use of SPECT-CT in Occult Scaphoid Injury - Work in progress**

Paul Labrecque\*, MD, MSc, CCFP (EM), FCFP; Amar Suchak, MD, FRCPC

**Objective:** The objective of this study is to determine if nuclear bone scan imaging with Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT) can be used as a practical, sensitive and specific tool for diagnosing scaphoid fractures that are occult on plain film radiographs. **Design:** Prospective case-controlled. **Setting:** Community Urgent Care Centre. **Participants:** Patients attending the Sheldon Chumir Urgent Care Centre (SCUCC) with clinically suspicious scaphoid fractures within two-weeks after injury and with normal radiographs, are included in the study. A patient is eligible if he/she is competent and consents to participate, does not have poly-trauma injuries, is not pregnant, and is greater than 18 years old. **Intervention:** Patients are assessed 10-14 days after the injury and, if radiographs are normal but there remains strong clinical concern for an occult scaphoid fracture, then patients are booked for a SPECT/CT bone scan study. **Main outcome:** We expect that SPECT/CT bone scan imaging will increase the sensitivity and specificity of detection of acute scaphoid fractures. **Results:** Currently, 72 patients have been enrolled. 46 participants have remained to completion of the 6-week protocol. 7 occult scaphoid fractures have been identified (15.2%), other pathology has been identified in 23 (50%) patients; in total, pathology has been identified in 26/46 or 65% of participants. Plain film radiographs were negative on all initial studies and 8/46 (17%) of the 6-week follow-up radiographs revealed pertinent findings. **Conclusion:** Bone scan SPECT-CT imaging can be a highly sensitive and specific investigative tool to identify occult scaphoid fractures in clinically suspicious traumatic wrist injury cases. This study may help strengthen the role of SPECT/CT imaging, in these scenarios and may assist in the creation of a flow algorithm for both the surgical and medical management of acute radiographically occult scaphoid fractures.

Resident

717 **Exhaustion and Disengagement: Understanding the Resident Experience (EnDURE)**

Alvin Szeto\*, MD, MSc; Laura Pellow, MD; Navsheer Toor, MD, CCFP

**Objective:** To assess the need for wellness program development for University of Toronto (UofT) family medicine (FM) residents. **Design:** a) a point-prevalence study using the Stanford Professional Fulfillment Index (PFI); b) a qualitative survey of the satisfaction of wellness interventions across residency sites. **Setting:** UofT FM residents across all 14 teaching sites. Call for participants and survey administration were conducted online. **Participants:** 88/394 (22.3%) UofT FM residents responded to the online survey in the 1-month window. **Interventions:** The Stanford PFI, which has been validated to measure professional fulfillment and burnout in physicians and residents, was administered to participants in an online survey. This included measures on Professional Fulfillment (PF) and burnout (Workplace Exhaustion (WE) and Interpersonal Disengagement (ID)) in the previous 2 weeks, and was supplemented with scales for self-reported medical errors and Likert scales for satisfaction with current site-based wellness strategies. Participants had the option of providing comments regarding current and future wellness strategies. **Main outcome measures:** Mean fulfillment (PF) and burnout (WE+ID) scores were analyzed based on age, sex, training level, and site. Thematic analysis was performed on comments regarding current wellness interventions. **Results:** 34/88 residents (38.6%) were professionally fulfilled (i.e. scored above the PF cutoff), while 44/88 residents (50%) experienced burnout (i.e. scored above the WE+ID cutoff). 35/88 residents (39.7%) were not professionally fulfilled and experienced burnout (i.e. scored below the PF cutoff and above the WE+ID cutoff). **Findings:** Recurring themes on the current resident experience included the appreciation for autonomy, collegiality, support/resources, and the need for cultural change. Residents desired greater autonomy and flexibility of their time and were apprehensive about mandated wellness activities. **Conclusion:** A significant proportion of UofT FM residents were not professionally fulfilled and experienced burnout. Further discussion and implementation of wellness interventions are required at both site and departmental levels.

Resident

718 **Diagnostic et gestion de l'obésité infantile en première ligne**

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**Objectif :** Évaluer le diagnostic et la gestion de l'obésité infantile par les professionnels du GMF-U St-Charles-Borromée (GMF-U SCB) selon les recommandations de l'INESSS. **Type d'étude :** évaluation de la qualité de l'acte. **Lieu :** Groupe de médecine de famille universitaire de Saint-Charles-Borromée, Québec. **Paramètres de l'étude :** Les dossiers des enfants de 5 à 12 ans ayant consulté au GMF-U SCB en 2017 ont été analysés afin d'identifier les cas d'obésité infantile selon la définition de l'INESSS, soit un IMC > 97<sup>e</sup> percentile sur la courbe de l'OMS. Les enfants qui ont consulté uniquement dans un contexte de sans rendez-vous ont été exclus. Parmi les 920 dossiers analysés, nous avons identifié 71 cas d'obésité infantile. **Intervention :** En nous basant sur le guide de l'INESSS 2012, nous avons monté une grille d'analyse systématique des dossiers. Nous avons analysé chaque dossier d'obésité infantile à l'aide de la grille, afin de déterminer si les recommandations de l'INESSS (prise en charge) étaient suivies par les professionnels du GMF-U SCB. **Résultats :** Sur 71 cas d'obésité identifiés seuls 40 ont été correctement diagnostiqués par les cliniciens. 66,2% ont reçu des conseils alimentaires, 70% ont reçu des conseils sur l'activité physique, 28,17% ont été référés à d'autres professionnels de la santé et 18,57% ont bénéficié d'un suivi médical adéquat. Les patients dont le diagnostic a été correctement posé ont bénéficié d'une prise en charge plus complète que les autres. **Conclusions :** Le diagnostic et la gestion de l'obésité infantile chez les enfants de 5 à 12 ans selon les critères de l'INESSS sont sous-optimaux au GMF-U SCB. Ceci a pour conséquence de retarder le traitement de cette condition médicale. Un 2<sup>e</sup> volet à notre travail sera effectué afin d'identifier les barrières et facilitateurs de l'utilisation des recommandations de l'INESSS en GMF-U.

719 **CANCELLED BY PRESENTER**

720 **Minimal Clinically Important Difference for the Adult and Pediatric SCAT5**

Michael Robinson\*; Lisa Fischer, MD; Andrew Johnson, PhD; David Walton, PhD PT; Joy MacDermid, PhD PT

**Objective:** To calculate MCIDs for all the symptoms, the total number of symptoms reported for and total symptom score

for the adult and pediatric versions of the Sport Concussion Assessment Tool 5th edition (SCAT5). **Design:** Retrospective cohort study **Setting:** Primary care clinic specializing in sport related concussions. **Participants:** 125 adults aged 13 and above (72 males, 53 females, mean age 18.64 +- 8.66) and 26 children between the ages of 5 and 12 (21 males, 6 females, mean age 10.63 +- 1.44) **Intervention:** SCAT5 responses collected during the initial and final visits recorded in a clinical concussion data registry. **Main outcome measures:** Individual's final symptom score, total score and total number of symptoms reported (T2) were subtracted from the initial values (T1). The average difference for each symptom, total score and total number of symptoms reported was calculated along with the 95% confidence interval, standard deviation and standard error of the mean. **Results:** MCIDs were calculated for all 22 symptoms that comprise the adult SCAT5, for all 21 symptoms of the child section of the pediatric version of the SCAT5, for all 21 symptoms of the parent section of the pediatric version of the SCAT5 and for the total number of symptoms and total score for both versions of the SCAT5. **Conclusion:** The resulting MCIDs can be used to aid in tracking the clinical recovery from concussion and aid clinicians in making return to play, school and work decisions.

### 721 Portrait of Pharmacists Practicing in Quebec Family Medicine Groups

Marie-Claude Vanier\*, BPharm, MSc; Anne Maheu, BPharm, MSc; Nicolas Dugré, PharmD, MSc; Léonie Rouleau, PharmD, PhD; Lyne Lalonde, BPharm, MSc, PhD; Line Guénette, BPharm, MSc, PhD

**Context:** Pharmacist integration into Quebec Family Medicine Groups (FMG) has exploded since 2017 due to the 2015 Ministry of Health funding program recognizing pharmacists as one of the core professions to include in FMG. In January 2019, 79% (262/333) of FMGs included at least one pharmacist. **Objective:** Quebec FMG pharmacists were surveyed to depict this new practice. **Design and setting:** This Quebec province-wide cross-sectional study was first-step of a community of practice creation for FMG pharmacists. **Setting:** All FMG in Quebec. **Participants:** Licensed pharmacists practicing in FMG. **Intervention:** Pharmacists practicing in FMG were identified by phoning each FMG. They were interviewed and sent an email with a link to a 44 questions online questionnaire. **Main outcome measures:** Survey questions covered: FMG descriptors; tasks; satisfaction; needs to optimize their practice; demographics; training and practice. **Findings:** 178/299 identified pharmacists completed questionnaire. Mean pharmacists worked time in FMG was 16.3 hours/week (11.2 hours/ pharmacist/week). Most FMG were not university affiliated (74,2%). Most pharmacists were practicing in FMG for <2 years (69,1%). Frequent tasks were (% often+very often): Answering family doctors' questions (90,4%), medication reviews (86%), follow-ups (71,3%), medication adjustment (tapering (55,6%), meet target (34,3%)), therapeutic education (30,9%). Most were satisfied with their level of integration (72,5%); autonomy level (69,7%); role in the FMG (65,8%) and interprofessional collaboration (59,5%). Needs prioritized for optimal practice were: 1) have their role better understood by the team; 2) discuss complex cases with colleagues; 3) training specific to family medicine practice. **Conclusion:** A majority of FMG now include a pharmacist. Most are new to this practice and will benefit from a community of practice. As expected, these pharmacists are frequently involved in tasks regarding pharmacotherapy optimization. Targeted educational activities and clarification/ promotion of pharmacist's roles in FMG can be supported by community of practice and the FMG teams themselves.

### Resident

### 722 De-Prescribing Statins in the Elderly: A Work-in-progress EMR-based intervention tool

Azza Eissa\*, MD, PhD; Amanda Sauve, MD; Lisa Forde; Jawid Darvish, MD, FRCP; Melissa Witty, MD, CCFP

**Objective:** Primary prevention with a statin has limited benefits in geriatric patients, with increased risks of side effects including myopathy, cataracts, confusion, polypharmacy and falls. Physicians rarely discuss ongoing statin use with older patients. Thus, this quality-improvement study aimed to design an EMR-based de-prescribing tool to increase physician-patient conversations that foster health-informed shared decision-making and better patient care. **Design:** Intervention design and implementation. **Setting:** Family medicine teaching unit (FMTU) in Barrie, Ontario. **Participants:** FMTU resident-physicians and patients >75 years old on a statin for primary prevention. **Intervention:** An EMR database query was conducted to identify all patients >75 years old and on a statin. To exclude patients on a statin for secondary prevention, charts were reviewed by two independent authors to exclude patients with a history of MI/CABG, poorly-controlled diabetes, chronic kidney disease, PVD or CVA. A statin deprescribing pathway with a de-prescribing EMR-based tool were designed. Residents were educated regarding these tools which allow for providing a timely patient-centred care weighing benefits and risks of statin use for primary prevention in the elderly. **Findings:** There are 264 patients >75 years old and on a statin at the FMTU. Only 100 patients have a resident-physician as their most responsible physician (MRP). One-third of these 100 patients are prescribed a statin for primary prevention. These 31 patients are contacted by our clinic administrator to book a follow-up with their MRP between April 15th-June 15th, 2019. We anticipate to increase resident-patient conversations regarding statin use in the elderly by 70%, and to deprescribe statins in at least 30% of patients seen over the two-month intervention period. Patients'

satisfaction and rating of overall experience will be monitored. **Conclusion:** Designing targeted EMR-based interventions may be highly effective at improving de/prescribing conversations and practice patterns in primary care office settings.

**Resident**

**723 The Influence of Learners on Emergency Department Short-Term Return Visits**

Christopher Elliott\*, MD, PhD; Tania Fitzpatrick, MD, PhD, CCFP; Lisa Calder, MD, MSc, FRCPC;  
Kuan-Chin Jean Chen, MD, CCFP (EM)

Learners, either medical students or residents, often perform the initial assessment of patients visiting the Emergency Department (ED). Their involvement has been shown to increase length of stay, time to disposition decision, utilization of imaging and hospital admission rates. Their impact on the rate of short-term unscheduled return visits, however, is unclear. The objective of this study was to determine if the involvement of learners in ED visits increases the rate of short-term unscheduled return visits. This was a retrospective analysis of ED visit data at a single tertiary care center over a one-year period. Return visits were defined as ED visits presenting within 72 hours of discharge from an initial non-admit ED visit and resulting in an admission on the second visit. The primary outcome was the rate of return visits for each staff physician, with and without learners involved during the initial visit. The secondary outcome assessed the interaction of level of training and program of training on return visit rates. Return visits accounted for 1858 (1.077%) of all ED visits (N = 172494). Return visits were statistically more likely when learners were involved in the initial ED visit (1.16%, CI 0.12), compared to initial visits seen by staff physicians alone (0.88%, CI 0.09, p<0.0001). Return rates were higher for PGY2 (1.67%, CI 0.35) and PGY3 (1.66%, CI 0.28) residents compared to staff physicians alone (p < 0.0001). There was no difference in return visit rates between staff physicians and third year medical students, fourth year medical students, PGY1, PGY4 or PGY5 residents. Additionally, there was no difference in return rates between residents from different programs of training.

**Resident**

**724 Building a Model for Development of Simulation in Rural Hospitals**

Bretton Hari\*, MD, CCFP; Aaron Johnston, MD, CCFP (EM), FCFP

**Objective:** Translate the methodology used to create the successful high fidelity simulation program at Mineral Springs Hospital in Banff, Alberta for the development of similar programs in other rural or regional settings. **Design:** This was a qualitative descriptive study, in which participants were interviewed and themes extracted from transcribed interviews using qualitative methodology. **Setting:** The study took place in the rural emergency department of Banff Mineral Springs Hospital. **Participants:** Individuals who were involved in the initial and ongoing development of the Banff simulation program were included in the study. This included a participant on behalf of physician, nurse, and EMS stakeholders respectively. **Intervention:** A comprehensive literature review to identify similar descriptive studies to ours was first performed. Interviews with the healthcare providers involved in the development of the Banff simulation program were held, and on-site visits occurred at Mineral Springs hospital. Interview transcriptions were thematically analyzed to create categories of necessary components in the development of a rural simulation program. These categories were then used to create a text and graphical representation of methodology required to develop such a program, called the 'road map'. **Findings:** Comprehensive literature review of four databases resulted in no identifiable literature with similar aims as our descriptive study. Analysis of interviews and resource cataloging has resulted in six categories: human resources, space, materials, curriculum, training, and finances. These themes were represented in a 'road map' flow diagram illustrating the methodology as three main steps: pre-development, development and redevelopment. **Conclusion:** There is a need for literature focused on the development of medical simulation programs in rural and regional settings. Our descriptive study has shown that Banff, AB developed their program by addressing six key categories, which can be emulated by new centers hoping to develop a robust program of their own.

**Resident**

**725 Exploring Attitudes Toward Assessment in a Competency-Based Family Medicine**

Cristina McHenry\*, MD; Peter Tzakas

**Introduction:** Many medical schools are shifting to a competency based medical education (CBME) curriculum, which has an emphasis on trainees attaining pre-set educational outcomes that are meant to reflect competence. We know from the literature that there are several criteria for successful assessment in CBME. **Purpose:** The objective of this study is to describe resident assessment in explore attitudes toward assessment in a CBME family residency program. Interviews were



conducted with residents, clinical preceptors, and faculty members in the Department of Family and Community Medicine (DFCM) curriculum development committee. Participants were obtained through convenience sampling. Interviews were transcribed verbatim and analyzed by two independent raters using grounded theory. **Results:** 19 interviews were conducted (7 residents, 6 preceptors, 6 DFCM committee members). Major themes that emerged included that DFCM competencies are not being used for resident assessment, and that most residents (67%) and clinical preceptors (67%) are unaware of the DFCM competencies altogether. Assessments regarding resident competency are most commonly based on the performance expected based on a resident's stage of training, and there is considerable variability in expectations between assessors. The main tool used for resident assessment is field notes, which are based on CanMEDS roles. Residents value this written feedback, but residents and DFCM committee members agree that field notes could be improved to be more valid and reliable, and to guide resident learning. Preceptors note that CBME imposes significant demands, in that it requires dedicated time for direct observation and field note completion. **Conclusions:** Resident assessment in CBME is highly variable, and will require development of a comprehensive resident assessment plan that includes faculty development.

## Resident

### 726 Reducing Barriers and Facilitating Resilience: Refugee peripartum depression case study

Jeanette Somlak Pedersen\*, MD; Madalena Dearden\*, MD;  
Ranjit Lehal, MN, NP(F); Mei-ling Wiedmeyer, MD, CCFP, PhD

**Background and purpose:** Refugee women in Canada experience higher rates of peripartum depression than Canadian-born women. Peripartum depression is associated with significant adverse outcomes. Despite this understanding, there is a knowledge gap in how best to address peripartum depression among refugee women. This case study discusses two cases of peripartum depression among refugees, highlighting risk factors, protective factors, barriers, and facilitators. The purpose is to: 1. Examine the unique health experiences that refugee women face around the time of their pregnancies with a focus on depression, and 2. Provide recommendations to reduce the impact of identified barriers. **Methodology:** We chose a case study design as it allows for an exploration of the unique experiences of refugee women with peripartum depression. The study population included refugee women of childbearing age living in British Columbia, Canada. Data was obtained from the electronic medical records of two participants who provided written consent. **Results:** Risk factors included trauma, family separation, poverty, and underhousing. Barriers included social isolation, limited English, multiple providers, and cultural preferences related to providers. Protective factors (e.g. spousal support) and facilitators (e.g. coordination of care by the health team and self-care) promoted well-being and resilience. **Conclusion:** There is a need for family physicians and other primary care providers to address peripartum depression among refugees taking into account the unique experiences and disparities affecting this population. We advocate for effective interventions that address the impacts of social determinants of health by reducing healthcare barriers and fostering resiliency.

## Resident

### 727 Factors Influencing MAID Decision Process Among Adults with Terminal Illness

Lora Rotstein\*, MD; Venus Valbeuna, MD

We sought to identify the factors that influence patients' decisions to contemplate MAID. Secondly, we explored patient and family member perspectives surrounding MAID, its emotional impact on patients and family members, and their global evaluation of MAID. This exploratory qualitative study conducted at Michael Garron Hospital involved in-depth, in-person structured interviews with terminally ill patients requesting MAID and family members. Interviews were recorded, transcribed, coded, and analyzed with a structured thematic analysis. During a total of 7 months, five patients and two family members were interviewed. Key dimensions identified as motivating factors to request MAID included multi-dimensional suffering, pain, loss of independence, acceptance of terminal illness, and search for control in one's life. In a global evaluation of MAID, patients and family members reported that media, experience, and healthcare professionals provided their foundational knowledge of MAID; they were appreciative and grateful for its legalization, and were realistic about death; and there was positive regard for the ten-day waiting period during the MAID process. Strategies proposed for the future of MAID include changing perceptions, providing education, and increasing recognition of patients experiencing multi-dimensional suffering. In conclusion, factors that influence patients' decision-making can be divided into external and internal factors, with symptom burden and multi-dimensional suffering ranking as top factors. Among patients and family members interviewed, religion was not a contributing factor, family members were supportive, and the ten-day waiting period was positively regarded as a safety measure for contemplating patients.

Resident

**728 Prevalence of Social Vulnerability in a Health Clinic - Work in progress**

Malcolm Tan\*, MD, MSc; Joni Haley, LMFT; Gwen Whitney-Gill; Sue Hemingway, LCMHC; Dominic Geffken, MD, MPH; Aimee Valeras, PhD

**Context:** Screening for Social Determinants of Health (SDH) can promote collaboration between clinical and allied health services, and the community, by identifying unmet health-related social needs, barriers to health, and assisting individuals to access appropriate services. The Concord Hospital Family Health Center (CHFHC) is a selected site for a Medicaid payment transformation project that aims to achieve better outcomes at a lower cost in New Hampshire (NH), USA. Medicaid patients comprise 36% of our clinic's patient population. **Objective:** To identify patterns between biopsychosocial needs and healthcare utilization by assessing SDH in our Medicaid patients. **Design:** A comprehensive survey tool was developed to better understand the prevalence of SDH. Descriptive statistics will be used to analyze aggregated data. **Setting:** A family medicine residency-based community health center in a mixed urban-rural city in New Hampshire, which serves primarily under-insured individuals and families. **Participants:** The SDH screening tool will be administered to all adult English-speaking patients of CHFHC with NH Medicaid coverage who come to a clinic appointment. The study period is from May 2018 - May 2019. **Intervention:** None. **Main outcome measures:** Data is being collected on transportation, housing, food access, substance use, depression, and safety, as well as types and number of major diagnoses, number of medications, no-show rate, emergency room utilization, and hospitalizations. **Results/findings:** Aggregating this data will identify patterns of SDH and healthcare utilization in our Medicaid patients, resulting in quality improvement recommendations for how CHFHC can effectively address them. **Conclusion:** We anticipate that screening for SDH will identify health utilization patterns, allowing for future community partnerships to strategically address these patients' needs and lower barriers to care. This study is part of a larger grant funding a social worker at the practice to assist patients who could benefit from community resources.

Resident

**729 Management of Antithrombotic Therapy for Cancer Patients in Hospice Care**

Caroline Veilleux\*, MD; Benoit Heppell, MD, MSc, CCMF

**Context:** Little is known about management of antithrombotic therapy for cancer patients in hospice care. Anticoagulants and antiplatelet drugs are antithrombotic therapies and are among the most commonly prescribed drugs in both primary and secondary care. Even though they prevent thromboembolic events, they increase risks of adverse events, especially for cancer patients. **Objective:** To describe management of anticoagulants and antiplatelet drugs for cancer patients in hospice care, and adverse events of continuation or discontinuation after admission. **Design:** Retrospective cohort study. **Setting:** Hospice care offered in separate hospice center for cancer patients in terminal stage of illness. **Participants:** Adult (>=18y) patients with cancer admitted between January 1, 2017 and December 31, 2018. **Main outcome measure:** Patients receiving anticoagulants or antiplatelet drugs, and concurrent adverse events. **Results:** Among 314 eligible patients, 118 (37.6%) were receiving anticoagulants or antiplatelet drugs on admission in hospice care including therapeutic (42.4%) and prophylactic (28.8%) anticoagulants, antiplatelet drugs (23.7%), and anticoagulant and antiplatelet combined therapy (5.1%). The three most antithrombotic prescribed drugs were dalteparin (53.4%), aspirin (27.1%), and rivaroxaban (7.6%). Among patients who received anticoagulants or antiplatelet drugs, 57 patients (48.3%) continued their therapy after admission, of which 5.3% did not have any documented rationale for continuation. Half of patients who continued the therapy received a co-prescription that increased bleeding risk further (NSAID). Most patients discontinued the therapy during hospice care (95.8%), and for all of them, thromboembolic events were not suspected. Discontinuation was mostly for patients approaching end of life, in palliative sedation, or experiencing bleeding. **Conclusion:** A substantial number of cancer patients received anticoagulants or antiplatelet drugs in hospice care. Discontinuation did not seem to arouse suspicion for thromboembolic events, but significant bleeding are observed with continuation. Further research is needed to develop guidance regarding management of antithrombotic therapy for cancer patients in hospice care.

Resident

**730 Client Experiences Accessing Opiate Replacement Therapy in a Regional Centre**

Mira Pavan, BMBS; Rebecca Schmidt, MD; Cheyanne Vetter\*, MD; Breanna Davis, MD, CCFP

**Background:** Canada currently faces the highest rates of narcotic misuse ever; the Government reported 2458 opioid-related deaths in 2016 alone. Medical management of opioid addiction has demonstrated good results; however, success is multifactorial. Clarification in the literature is needed to identify factors that influence success of clients in harm reduction programs. **Research question:** What

are the challenges clients face within a community harm reduction program and what are the strengths of this program? **Methods:** This qualitative research engaged sixteen clients that participated in a semi-structured interview to explore perspectives on a harm reduction program. Voluntary, informed consent was obtained prior to embarking on the interviews which were recorded and transcribed. The transcripts were coded for thematic analysis and to identify underlying themes. Ethics approval was secured from the University of Saskatchewan's Behavioural Research Ethics Board before commencing. **Findings:** Common themes identified by the clients included the importance of support (by the program, their home community, and their family); the challenges of accessibility (number of providers and access to reliable transportation); the impact of stigmatization (regarding addiction and also opiate substitution therapy, in the community and particularly amongst health care providers) and the importance of education (for health care providers and the community). **Conclusions:** The success of clients in a harm reduction program relies heavily on a strong program, the ability to access and maintain contact with the program, support from community members, and commitment from the client. **Recommendations:** Concerns raised by clients can be addressed through a Board of Directors that oversees the Harm Reduction Program. Further research could explore expanding similar programs into more rural and remote communities.

**731 Impact of Interprofessional-Musculoskeletal-Workshops on Knowledge and Confidence of Medical Students**

Tim Dubé\*, PhD; Cyril Boulila; Christophe Gendron; Élise Girouard-Chantal

**Objective:** Graduating medical students and family doctors identify themselves as having a poor knowledge of musculoskeletal (MSK) conditions, as well as a weak confidence in their ability to assess them. In comparison, Physical (PT) and Occupational Therapy (OT) programs dedicate an extensive amount of time to teaching their students MSK disorders and assessment techniques. This premise led a group of medical students to create a series of interprofessional learning activities about MSK assessment in the form of hands-on workshops involving both PT/OT and medical students. This research aims to determine whether participation in these innovative student-led interprofessional workshops provides medical students with the possibility to gain knowledge and strengthen their confidence in their ability regarding MSK assessment. **Design:** Mixed-methods pre-post cohort study. **Setting:** Each workshop is 3 hours, free and hosted in a community physiotherapy clinic. **Participants:** Volunteer sample consisting of 10 second-year medical students from McGill University. **Intervention:** Medical students attend 3 workshops, each covering a different joint and consisting in a didactic presentation by a licensed physiotherapist followed by hands-on practice of MSK assessment techniques led by PT/OT students. **Main outcome measures:** Pre-post quizzes to assess change in knowledge of MSK assessment techniques and a pre-post questionnaire to assess medical students' confidence in their ability to perform basic MSK assessments. A focus group interview is also conducted to gain an understanding of the medical students' perspectives regarding their participation in the workshops. **Results:** We anticipate medical students to show an increased knowledge about common MSK conditions post-workshops as well as an increased confidence with basic MSK assessment techniques, both acquired in a learning environment that they highly value. **Conclusion:** Ultimately, this interprofessional learning platform may increase the knowledge and skill set of future physicians including family doctors, minimizing the burden of MSK disorders and avoiding unnecessary referrals.