FMF
Family Medicine Forum
Forum en médecine familiale

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA
LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

#MYFMF
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NON-CERTIFIED PROGRAM

Metro Toronto
Convention Centre

PROGRAMME D'ACTIVITÉS NON CERTIFIÉES

Palais des congrès
du Toronto
métropolitain

NOV 14-17, 2018
TORONTO, ONTARIO

fmf.cfpc.ca | familymedicineforum | @familymedforum | familymedforum | FMF 2018

Monday, November 12 / Lundi 12 novembre

07:00–17:00 **CFPC Board of Directors Meeting - Day 1**
(By invitation only)

ROOM / SALLE : InterContinental – Visionary

Tuesday, November 13 / Mardi 13 novembre

07:00–12:00 **CFPC Board of Directors Meeting - Day 2**
(By invitation only)

ROOM / SALLE : InterContinental - Visionary

07:00–12:00 **Chapter Elected Leaders Meeting**
(By invitation only)

ROOM / SALLE : InterContinental - Kingsway

07:00–12:00 **Chapter Administrators and Executive Directors Meeting**
(By invitation only)

ROOM / SALLE : InterContinental - Grenadier

09:00–16:00 **National Orientation to FM Educational Leadership**
(By invitation only)

ROOM / SALLE : 202C MTCC North

10:00–12:00 **Your Questions Answered: Accreditation Reform (1)**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

12:45–17:30 **FMNEA Professional Development Conference - Day 1**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

13:00–17:00 **Chapter Symposium**
(By invitation only)

ROOM / SALLE : InterContinental – Oakville

17:00–20:30 **Alma Ata 40th Anniversary Dialogue and Dinner**
(Tickets required)

ROOM / SALLE : Faculty Club, U of T

18:00–21:00 **Board, CAED, Presidents and Senior Team Dinner**
(By invitation only)

ROOM / SALLE : Brassaii Restaurant

Wednesday, November 14 / Mercredi 14 novembre

07:30–16:00 **OCFP Board of Directors Meeting**
(By invitation only)

ROOM / SALLE : 501B MTCC South

09:00–16:30 FMNEA Professional Development Conference - Day 2
(By invitation only)

ROOM / SALLE : 202AB MTCC North

09:30–11:00 Your Questions Answered: Accreditation Reform (2)
(By invitation only)

ROOM / SALLE : 202C MTCC North

12:15–13:30 Ontario College of Family Physicians Annual Meeting of Members
Assemblée annuelle des membres du Collège des médecins de famille de l'Ontario
(OCFP members only)

ROOM / SALLE : 501A MTCC South

The Annual Meeting of Members (AMM) will be held during the Family Medicine Forum on Wednesday November 14 at 12:15 pm. The AMM is a formal meeting that is legislated within the Corporation Act and included in the Ontario College of Family Physicians (OCFP) bylaws.

The purpose of the AMM is to share with members the work of the OCFP and in particular the Board of Directors' activities. This meeting will include updates from the President and the CEO about recent achievements of the organization and provide an opportunity for members to elect representatives to the Board. Members will also be presented the 2017-18 audited financial statements and will have the opportunity to approve a motion recommending an Auditor to review the OCFP's financial health in the coming year.

12:15–13:30 Teachers and Preceptors Knowledge Café and Lunch
Dîner des enseignants et des superviseurs au Café du savoir

ROOM / SALLE : 718A

Join us for lunch at the Teachers and Preceptors Knowledge Café, where you'll have a chance to discuss emerging hot topics and network with colleagues at facilitated tables.

Partagez le diner avec vos collègues enseignants et superviseurs dans le cadre du Café du savoir. Vous aurez l'occasion de participer à des discussions animées sur des sujets chauds et de réseauter avec vos collègues.

12:15–13:30 Section of Researchers Lunch
Dîner et réunion de la Section des chercheurs

ROOM / SALLE : 718B

12:15–13:30 Section of Communities of Practice in Family Medicine Networking Lunch
Dîner de réseautage de la Section des Communautés de pratique en médecine familiale

ROOM / SALLE : 701A & 701B

14:30–15:00 New FMF Delegate Orientation

ROOM / SALLE : Meet at Registration

New to FMF? Meet at registration for a brief tour and Q & A.

15:00–17:00 Accreditation Chairs Meeting
(By invitation only)

ROOM / SALLE : 704 MTCC South

17:15–18:30 FMF Welcome Reception
(Tickets required, purchase in advance or at the door)

ROOM / SALLE : 800 Foyer MTCC South

18:30–21:00 **2018 OCFP President's Installation and Awards Ceremony**

ROOM / SALLE : Hyatt Regency Toronto Hotel (370 King St. W, Toronto)

The OCFP will officially welcome and install Dr. Jennifer Young as the organization's 62nd president for the two-year term of 2018-2020. Following the installation of the new president, the OCFP Awards will recognize community and medical leadership, outstanding contributions in teaching and exceptional teamwork among family doctors across Ontario.

The November 14th installation and awards ceremony will be held from 6:30 p.m. – 8:00 p.m. in the King Ballroom of the Hyatt Regency Toronto.

The event is open to OCFP members and their supporters and no tickets are required.

19:00–22:00 **Section of Researchers Dinner**
(Tickets required, bussing available)

ROOM / SALLE : Palais Royale

Thursday, November 15 / Jeudi 15 novembre

T302 **Les articles dans le blogue du MFC**
07:00–08:00 Roger Ladouceur, MD, MSc, CCMF, FCMF; Nick Pimlott, MD, CCMF, FCMF;
Peter Thomlison, éditeur du Médecin de famille canadien

ROOM / SALLE : 602AB
Cette séance n'est pas certifiée par le CMFC. Cette séance pourrait donner droit à des crédits non-certifiés

Objectifs d'apprentissage :

1. Prendre connaissance des directives pour les articles publiés dans le blogue du MFC
2. Connaître les blogueurs médicaux renommés
3. Encourager les auteurs potentiels à soumettre des articles dans le blogue du MFC

Description :
Cet atelier de réseautage permettra aux médecins de famille canadiens qui souhaitent publier des articles dans le blogue du Médecin de famille canadien (MFC) de se rencontrer, de partager leur expérience et d'en apprendre davantage sur les directives pour soumettre un article dans le blogue de la revue. Il permettra aussi de prendre connaissance des blogues médicaux publiés par les autres revues médicales.

T313 **Launching Your Career in Family Medicine**
07:00–08:00 Taylor Lougheed, MD, CCFP (EM), Dip Sport Med

ROOM / SALLE : 604
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Description:
Training in family medicine provides physicians with a broad based set of skills and expertise that can be applied to a range of medical and non-medical roles. Diversifying your career can allow for physicians to explore new areas of interest, maintain work-life balance, and defend against burnout. This session is aimed at trainees, new-to-practice physicians, and those interested in complementing their current career with additional opportunities. This session will explore the myriad ways that family physicians can complement their medical practices, and explore strategies for maintaining sustainable work-life balance.

T374 **Researchers in Education Networking Breakfast**

07:00–08:00 Doug Archibald, PhD; Shelley Ross, PhD

ROOM / SALLE : 605
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Description:
This event is an informal networking opportunity to connect colleagues considering and/or conducting like-minded research and to provide a forum for the discussion and sharing of current and prospective research ideas. Learning Objectives: To bring researchers in education together; learn about research being undertaken by colleagues; generate opportunities for collaborations and; discuss ideas for future research in education.

T736 **Residency PBSG Networking Breakfast**
07:00–08:00

ROOM / SALLE : 603
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

09:30–10:00 **New FMF Delegate Orientation**

ROOM / SALLE : Meet at Registration
New to FMF? Meet at registration for a brief tour and Q & A.

10:00–17:00 **Enhanced Skills Program Directors National Group Meeting**
(By invitation only)

ROOM / SALLE : 202C MTCC North

10:00–17:00 **Canadian Undergraduate Family Medicine Directors (CUFMED) Meeting**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

12:15–13:30 **CFPC Annual Meeting for Members**
Assemblée annuelle des membres du CMFC

ROOM / SALLE : 718A MTCC South

Why attend the Annual Meeting of Members (AMM)?
- Influence the direction of the CFPC.
- Interact with your Board Directors and the Executive Director/Chief Executive Officer. Do you have questions? Bring them!
- Meet your newly elected 2018–19 Board of Directors.

Lunch will be provided.

Pourquoi assister à l'Assemblée annuelle des membres (AAM) ?
- Influencer la direction du Collège.
- Échanger avec les membres de votre CA et avec la directrice générale et chef de la direction. Avez-vous des questions ? Posez-les.
- Rencontrer les membres du CA nouvellement élus pour 2018–2019.

Le dîner sera offert.

T355 **Shall We Dance? Illness prevention through creative movement**
12:30–13:30 Sarah Kim, MD, CCFP (SEM), FCFP, DipSportMed

ROOM / SALLE : 803AB
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Learning objectives:
1. Examine the current evidence for dance as a health promotion activity accessible to all ages and abilities

2. Demonstrate enhanced command of the body and increased comfort to engage in dance as a daily health promoting activity
3. Identify other creative expression activities that can be integrated regularly to enhance both physician wellness and patient well-being

Description:
This workshop is designed with the absolute beginner in mind. We will begin with a review of the current evidence for dance as a health promoting activity that can be recommended to all patients. Participants will then be invited to immerse themselves in the interactive experience of a very simple dance class format that will begin with a warm-up, followed by instruction of very simple choreography. The exercises presented will focus on enhancing coordination, concentration, rhythm, body awareness, spatial awareness and awareness of other participants. We will examine and evaluate the immersive experience, focusing on how dance is both physically and cognitively stimulating. We will close with a discussion of how to overcome barriers to regularly participate in creative activities and exercise. No special clothing or skills are required.

13:00–13:30 **New FMF Delegate Orientation**

ROOM / SALLE : Meet at Registration
New to FMF? Meet at registration for a brief tour and Q & A.

14:00–16:15 **2018–2019 CFPC Board of Directors Meeting and FAFM AMM**
(By invitation only)

ROOM / SALLE : 704 MTCC South

17:15–18:30 **FMF Celebration**
(All are welcome)

ROOM / SALLE : 800 Foyer MTCC

17:30–18:30 **FMF Mentoring Program**
(Pre-registered participants only)

ROOM / SALLE : 803 A MTCC South

19:00–23:30 **Celebrating Family Medicine Teaching Dinner and 'After Party'**
(Tickets required, After Party tickets available on-site at Registration)
(Bussing available for the dinner (not the after party.)

ROOM / SALLE : The Carlu

20:00–23:00 **First Five Years in Family Practice Reception**
(By invitation only)

ROOM / SALLE : El Caballito/El Patio

Friday, November 16 / Vendredi 16 novembre

F436 **Health Humanities Across Canada Networking Breakfast**
07:00–08:00 Joyce Zazulak, MD, CCFP, FCFP; Sarah de Leeuw, MD

ROOM / SALLE : 605
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Learning objectives:
1. Generate opportunities for future collaborations and idea generation with like-minded colleagues in the area of health humanities
2. Foster the develop of a cross Canada community of practice in health humanities
3. Provide the opportunity for those interested in arts and humanities to learn about health humanities initiatives across Canada

Description:

Building on the success of the breakfast networking session at FMF 2017 the History and Humanities committee would like to invite our colleagues with a strong interest in Health Humanities to a breakfast networking session. The Arts and Humanities provide valuable insights into how medicine takes place with both a cultural and social context and offer a historical perspective on medicine. The History and Humanities Committee would like to create space for colleagues with expertise in the humanities to showcase their various educational initiatives and for others with an interest to learn about the value of humanities-based initiatives that exist across the country.

F471 **Residency Program Site Directors' Networking Breakfast**
07:00–08:00 Eric Wong, MD, MClSc (FM), CCFP, FCFP; Nelson Chan, LLB, MD, CCFP

ROOM / SALLE : 604
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Description:
The goals of this networking breakfast are: 1) Develop a community of practice for site directors across the country; 2) Provide a forum for peer support for site directors; 3) Discuss how site directors can be better prepared and supported in their roles.

08:30–10:30 **Emergency Medicine Directors Meeting**
(By invitation only)

ROOM / SALLE : 202C MTCC North

12:15–16:30 **CFPC Board of Directors and Partner Organizations Lunch and Meeting**
(By invitation only)

ROOM / SALLE : 501A MTCC North

12:15–13:30 **Teachers and Preceptors Town Hall**
Assemblée générale des enseignants et superviseurs

ROOM / SALLE : 718A MTCC South

13:30–17:00 **Academic Coordinators Meeting**
(By invitation only)

ROOM / SALLE : 202C MTCC North

09:30–12:15 **Health Professional Educators Group (HPEG) Meeting**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

12:15–13:30 **First Five Years in Family Practice Luncheon**
Dîner pour les médecins de famille dans les cinq premières années de pratique
(Registration required / Inscription requise)

ROOM / SALLE : 718B MTCC

F470 **Writing for Our Lives**
12:30–13:30 Joyce Zazulak, MD, CCFP, FCFP; Sarah de Leeuw, MD

ROOM / SALLE : 803AB
This session is not certified by the CFPC. This session may be eligible for non-certified credits.

Learning objectives:
1. Explore why physicians write and what writing offers them in their professional and personal lives
2. Understand how authors manage their lives to indulge in their passion for writing
3. Learn and discover writing for publication

Description:

This session will explore overlaps between family medicine and story writing. We will draw on the skills of both physician writers and a professional author/poet. Story writing is a powerful skill in the family physician's toolkit. There are myriad of reasons to write and engage writing: to interpret events, imagine the future, preserve the past, overcome fears. For some, writing is a means of dealing with self-doubt, supporting self-healing, validating feelings and emotions, and for reflecting on their practice. Writing in the clinical setting can help physicians recognize their own journey when caring for patients thus offering the means to extend empathy and effective care, promote wellness and resilience and help guard against compassion fatigue and burnout. Engaging writing can hone critical analytical skills about pressing social and health issues. Consider bringing your finished or unfinished writing to the workshop for further work and development.

13:00–17:00 **In-Training Assessment/Evaluation Directors Meeting**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

18:00–22:30 **Awards Gala**
(Tickets required – Bussing available)

ROOM / SALLE : Beanfield Centre

19:00–23:00 **Student and Resident Social Event**
(Tickets required)

ROOM / SALLE : Steam Whistle Brewery

Saturday, November 17 / Samedi 17 novembre

07:00–08:00 **Canada's Walk With the Docs – Advancing Family Medicine Globally**
En Marche avec nos médecins – Faisons avancer la médecine familiale au Canada et ailleurs
(Register in advance / Inscrivez-vous à l'avance)

ROOM / SALLE : Meet in 600 Foyer/Rassemblement au Foyer 600

08:00–10:00 **Research Directors' Dinner**
(By invitation only)

ROOM / SALLE : 704

10:00–13:45 **Faculty Development Interest Group (FDIG) Meeting**
(By invitation only)

ROOM / SALLE : 202C MTCC North

08:30–16:00 **Family Medicine Program Directors Meeting**
(By invitation only)

ROOM / SALLE : 202AB MTCC North

08:30–16:00 **Family Medicine Chairs (ACCFM) Meeting**
(By invitation only)

ROOM / SALLE : 202D MTCC North

09:30–16:00 **Section of Medical Students (SOMS) Meeting**
(By invitation only)

ROOM / SALLE : 501A MTCC North

12:30–13:30 **Long–Term Care Medical Directors of Canada Meeting**
(By invitation only)

ROOM / SALLE : 718A MTCC South

12:15–13:30 **Medical Student and Family Medicine Resident Networking Luncheon**
Déjeuner de réseautage des étudiants et des résidents en médecine familiale
(Registration required / Inscription requise)

ROOM / SALLE : 718B MTCC

17:00–18:30 **Convocation Ceremony**

ROOM / SALLE : Hall F/G MTCC South

POSTER PRESENTATIONS / PRÉSENTATIONS D'AFFICHES

Wednesday, November 14 / Mercredi 14 novembre

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501 **"Your Milk is Bad": A qualitative study of maternal diet and infant colic**
Monica Kidd*, MD, CCFP, MSc; Melanie Hnatiuk, MD, CCFP; Jocelyn Barber, MB;
MaryJo Woolgar, MD, CCFP; Maria Palacios Mackay, PhD

Objective: To investigate newly parturient mothers' ideas about the role of maternal diet in infant fuss-cry behaviour, and to explore patterns of food restriction in breastfeeding women. **Design:** Qualitative study using conventional content analysis. **Setting:** Primary care obstetrical and breastfeeding clinics in Calgary, Alberta. **Participants:** Mothers of healthy singleton infants six months and younger who had initiated breastfeeding. **Method:** Focus groups and one-on-one interviews with a semi-structured interview guide, followed by content analysis. **Main findings:** Most respondents believed infant cry-fuss behaviour was related to abdominal pain linked to feeding, and had eliminated items from their diet in an attempt to change infant behaviour. Typical targets of elimination were caffeine, cruciferous vegetables, cabbage, garlic and onions, spicy foods, gluten and beans. Women commonly viewed elimination diets as an extension of neutral or benign choices made during pregnancy, even when it led to extreme diet restriction. Respondents reported feeling appraised by society for their infant feeding choices, and often harshly judged. Many women reported feeling confused by conflicting sources of reliable information on breastfeeding and preferred advice from trusted friends and family to that from health care providers or the Internet. **Conclusion:** In spite of scientific evidence to the contrary, our breastfeeding respondents believed maternal diet influences infant cry-fuss behaviour. An understandable desire for a calm baby, and to be favourably judged by friends and family, can drive breastfeeding women to restrict their diet, often to the point of hardship. A strong message of support for women to eat balanced diets while breastfeeding may help reduce anxiety and improve nutrition for mothers of young infants.

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502 **Inflammatory Response During Pregnancy and Perinatal Outcomes: Work in progress**
Monica Kidd*, MD, CCFP, MSc; Thomas McDade, PhD

Objective: Preventing poor perinatal outcomes is the goal of all prenatal care, yet just who will go on to develop preeclampsia or have a growth-restricted baby is notoriously difficult to predict. A growing body of evidence suggests inflammatory markers can help predict poor outcomes, even prior to, and beyond, the current pregnancy. We are collecting data on the response of inflammatory markers (C-reactive protein and cytokines IL6, IL10, TNFa, IL8), as well as the degree to which genes responsible for these proteins are turned on in response to a safe immune provocation (the seasonal influenza vaccine) to find out whether inflammatory response is associated with increased risk for gestational hypertension, preeclampsia, preterm delivery, or birth weight. **Design:** Non-randomized quantitative prospective cohort trial. **Setting:** A primary care obstetrical clinic in Calgary, AB. **Participants:** Patients with low-risk pregnancies. **Intervention:** Seasonal flu vaccine. **Main outcome measures:** Variation in inflammatory markers pre- and post- seasonal flu vaccine, gestational hypertension, preeclampsia, preterm delivery, birth weight. **Results/findings:** Preliminary data suggest pre-pregnancy BMI predicts higher baseline inflammation in pregnancy, and is negatively associated with CRP response to vaccination, suggesting that high BMI may attenuate inflammation regulations. Furthermore, those women who showed less immune response to vaccine were also more likely to have lower birth weight babies who are then at higher risk of future health complications. **Conclusions:** These data contribute to emerging questions about the cause and effects of inflammation dysregulation in perinatal outcomes and child and maternal health, which is a novel field in primary care.

Resident

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503 Neonatal Outcomes Associated With Cannabis Exposure in Pregnancy: Implications for primary care

Melissa Yu, MD, MPH; Sarah Elliott*, MD, MPH; Alice Ordean, MD, CCFP, FCFP, MHSc, DABAM

Objective: To summarize and critically appraise the literature on neonatal effects of maternal cannabis use during pregnancy in order to enhance knowledge of primary care providers. **Design:** A systematic review of literature using electronic databases was conducted using pre-defined search criteria. PubMed/MEDLINE, EMBASE, PsychINFO, Scopus and Cochrane databases were searched between 2000 and 2017. Studies were limited to original research in English language with full text available. Studies with concurrent use of alcohol and other illicit drugs during pregnancy were excluded; however, studies with concurrent tobacco use were included. Two reviewers selected articles to be included and extracted data. Quality of included studies was assessed using the GRADE approach to quality evaluation. **Main outcome measures:** Neonatal outcomes included gestational age at delivery, birth weight, APGAR score, NICU admission, and neurobehavioral findings (jitteriness, feeding, sleep patterns). **Results:** A total of 507 articles were reviewed. Only 17 studies met eligibility criteria for inclusion. Some studies showed that cannabis use in pregnancy is significantly associated with adverse neonatal outcomes such as low birth weight, small for gestational age, pre-term delivery, and NICU admission. This association often remained significant after controlling for confounding factors such as maternal age, ethnicity, education, parity, as well as concurrent tobacco use. Articles included were based on observational research including cohort and cross-sectional studies. **Conclusion:** Given the changing climate around cannabis use, the aim of this research is to enhance the knowledge of primary care providers about counseling on the risks of cannabis use in pregnancy, and to provide guidance to women with antenatal cannabis use.

Medical Student

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504 Ectopic Pregnancy Outcomes in Patients Discharged From the Emergency Department

Krista Hawrylyshyn*, MSc; Shelley L. McLeod, MSc; Jackie Thomas, MD, MSc;
Catherine Varner, MD, CCFP (EM), MSc

Objective: The objective of this study was to determine the proportion of women who had a ruptured ectopic pregnancy after being discharged from the emergency department (ED) where ectopic pregnancy had not yet been excluded. **Design, setting, participants:** This was a retrospective chart review of pregnant (<12-week gestational age) women discharged home from an academic tertiary care ED with a diagnosis of ectopic pregnancy, rule-out ectopic pregnancy, or pregnancy of unknown location over a 7-year period. **Results:** Of the 550 included patients, 83 (15.1%) had a viable pregnancy, 94 (17.1%) had a spontaneous or missed abortion, 230 (41.8%) had an ectopic pregnancy, 72 (13.1%) had unknown outcomes, and 71 (12.9%) had other outcomes that included therapeutic abortion, molar pregnancy, or resolution of βHCG with no location documented. Of the 230 ectopic pregnancies, 42 (7.6%) underwent expectant management, 131 (23.8%) were managed medically with methotrexate, 29 (5.3%) were managed with surgical intervention, and 28 (5.1%) patients had a ruptured ectopic pregnancy after their index ED visit. Of the 550 included patients, 221 (40.2%) did not have a transvaginal ultrasound during their index ED visit, and 73 (33.0%) were subsequently diagnosed with an ectopic pregnancy. **Conclusion:** These results may be useful for ED physicians counselling women with symptomatic early pregnancies about the risk of ectopic pregnancy after they are discharged from the ED.

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505 Building a Proof of Concept National Diabetes Repository

Michelle Greiver, MD, CCFP, FCFP, MSc; Neil Drummond, PhD; Donna Manca, MD, CCFP, FCFP, MCIS;
Marie-Therese Lussier, MD, CCFP, FCFP, MSc; Don Willison, ScD, MSc; Aashka Bhatt;
Conrad Pow, GDipBUS; Helena Medeiros, MSc

Diabetes Action Canada (DAC) is a national chronic disease initiative to improve the care of patients with diabetes and its complications through a comprehensive program of research, quality improvement, and service. Data management on a national level can provide an important informational resource for conducting patient-oriented research. DAC formed an Informatics Goal Group to propose options for data management. Four working groups (technical, data elements, patient-reported experience/outcome measures, and governance) provided input. The groups met during 2016 and included patients, caregivers of patients, researchers, informatics and governance experts, and clinicians. The Goal Group has proposed the development of a national diabetes data repository. The initial version is a Proof of Concept (PoC) prototype repository containing data extracted from primary care electronic medical records; this has been approved by DAC Leadership and by the Canadian Primary Care Sentinel Surveillance Network's (CPCSSN) Steering committee. Four

CPCSSN Networks in Alberta, Ontario, and Quebec will initially pool de-identified EMR data relevant to 50 000 patients with diabetes. The PoC repository will be housed within the CPCSSN data center at Queen's University (Ontario). It will be managed and controlled by DAC and will include virtual research environments to allow DAC researchers to conduct studies. Work has been undertaken to form and govern the repository, and to set the stage for future expansion to include or link to other data, including administrative data in several provinces; patient-reported outcome and experience data via smartphone apps or tablets and additional data such as retinopathy screens.

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506 Governance Principles and Operational Model of Diabetes Action Canada's Data Repository for Research

Don Willison, ScD; Joslyn Trowbridge, MPP; Frank Sullivan, FRSE, FRCP, FRCGP, CCFP;
Karim Keshavjee, MD, MBA; Michelle Greiver, MD, CCFP, FCFP, MSc

Context: Diabetes Action Canada (DAC) is developing a data repository to support research, QI, and service that will improve diabetes care. **Objective:** To design an information governance process for the intended diabetes data repository that will support research, QI, and service. **Design:** Literature review and key informant consultations. **Setting:** Provinces of Alberta, Ontario and Quebec in Canada. **Participants:** Through an extensive, global literature review, DAC developed a principles-based governance framework and draft information governance model focused on patient participation. We are conducting key informant interviews in up to 6 organizations to determine how national and global leaders in developing data safe havens have instantiated these principles. **Results:** DAC has identified eight values-based principles to guide our governance model: transparency; accountability; following the rule of law; integrity of purpose, science and ethics; participation and inclusiveness; impartiality and independence; effectiveness, efficiency and responsiveness; and reflexivity and continuous quality improvement of process. There is a strong representation of patient and healthcare professional (HCP) partners: Patients represent 50% of members on the research governing committee and HCPs 20%. Applicants for access to data must indicate involvement of patients and HCPs in the research. DAC is in the process of identifying best practices internationally in information governance. The poster will present our draft governance model and key informant findings to date. **Conclusions:** To earn and maintain public trust, information governance must go beyond compliance with formal regulations to ensure a 'social licence' for the use of the data. The DAC data repository and patient registry will accomplish this through a focus on research that is scientifically sound, ethically robust and in the public interest.

Medical Student

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507 Diabetes Canada Guideline Dissemination Strategy and the Prescription of Vascular Protective Medications, 2010-2015

Alanna V Rigobon*, MSc; Sumeet Kalia, MSc; Jennica Nichols, MSc; Babak Aliarzadeh, MD, MPH;
Michelle Greiver, MD, CCFP, FCFP, MSc; Rahim Moineddin, PhD; Frank Sullivan MB, ChB(Hons), PhD;
Catherine Yu, MD, CCFP (EM), FCFP, MHSc

Context: The 2013 Diabetes Canada guidelines launched targeted dissemination tools and a simple assessment for vascular protection. **Objective:** To examine changes in the rates of vascular protective medications prescribed in primary care for patients with diabetes associated with the launch of the 2013 Diabetes Canada guidelines. **Design:** Interrupted time series. **Setting:** Routinely collected electronic medical record (EMR) data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), from April 2010-December 2015. **Participants:** Patients age 40 or more were included in each quarter using the following conditions: living with diabetes, met 2013 Diabetes Canada criteria for vascular protective medication and with at least one clinic visit during or prior to each quarter of interest. **Main outcome measures:** Proportion of eligible patients prescribed a statin, ACE-Inhibitor (ACEI)/Angiotensin Receptor Blocker (ARB), or antiplatelet medication in each quarter. Proton Pump Inhibitor (PPI) prescriptions were the reference control. **Results:** The number of patients included per quarter ranged from 25,985 to 70,693, mean 45,077 patients. There were no significant changes in statin (p=0.43), ACEI/ARB (p=0.42), antiplatelet (p=0.39) or PPI (p=0.16) prescription rates from January 2010 to guideline release in April 2013. After guideline publication, there was a significant deceleration in prescription rates for statins (-0.52%/quarter; 95% confidence interval [CI] -0.86% to -0.18%), ACEI/ARBs (-0.38%/quarter; 95% CI -0.67% to -0.09%) and reference PPI prescriptions (-0.18%/quarter; 95% CI -0.30% to -0.06%). Prescription rates in eligible patients were significantly higher in urban compared to rural practices for statins (61.1% vs 53.9%, p<0.05), ACEI/ARBs (49.2% vs 44.5%, p<0.05), and antiplatelet agents (15.7% vs 14.5%, p<0.05). **Conclusions:** There was a deceleration in prescribing rates of vascular protective medications after the release of the 2013 Diabetes Canada guidelines. More effective knowledge translation strategies, targeted at groups with lower adherence rates, are needed to improve vascular protection in diabetes.

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508 Opioids for Acute Pain in Older Adults in the ED: A systematic review

Jonathan Gravel, MD, MSc; Maaike de Vries*, MSc; Daphne Horn, MI; Shelley McLeod, MSc;
Catherine Varner, MD, CCFP (EM), MSc

Context: Emergency department (ED) providers are frequently challenged with how best to treat acute pain in older patients, specifically when non-opioid analgesics are insufficient or contraindicated. Studies have documented older patients presenting to the ED with painful conditions are less likely to receive pain medications than younger patients, and this inadequate pain control has been associated with increased risk of delirium and longer hospital stays. As there are no guidelines informing best practice of analgesia in the older adult population, emergency physicians often report uncertainty regarding the ideal choice of opioid analgesic. **Objective:** The objective of this study was to compare the efficacy of opioid analgesics for acute pain in older adults in the ED. **Design:** Electronic searches of Medline, EMBASE, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews and CINAHL were conducted and reference lists were hand-searched. Randomized controlled trials (RCTs) comparing the efficacy of 2 or more opioid analgesics for acute pain in older patients (>70 years) in ambulatory settings (i.e., EDs, clinics) were included. Two reviewers independently screened abstracts, assessed quality of the studies, and extracted data. **Results/findings:** After screening titles and abstracts of 1297 citations, the full-texts of 63 studies were reviewed, and 1 study met the inclusion criteria. This study allocated older adult patients presenting to an urban academic ED with acute, severe pain to receive either a single dose of 0.0075-mg/kg IV hydromorphone or 0.05-mg/kg IV morphine. The study found no clinical or statistical difference between the two treatments. **Conclusion:** The lack of published research in this area demonstrates that there exists a significant gap in knowledge of the comparative efficacy of opioid analgesics in this growing patient population and that well-designed RCTs are urgently needed.

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Opioid Prescribing Assessment in Ontario General Practitioners: Pre-post ECHO participation: Work in progress

Santana Díaz*, MD; Jane Zhao, MSc; Yalnee Shantharam; Andrea Furlan, MD, PhD

Context: Canada is the second highest prescriber of opioids per capita in the world. In order to monitor prescription drug misuse, the Narcotic Monitoring System (NMS) collects dispensing information for all monitored drugs prescriptions in Ontario. ECHO™ (Extension for Community Healthcare Outcomes) is a telemedicine education program that links specialists with general practitioners (GPs) in underserved, rural, and remote areas. ECHO Chronic Pain/Opioid Stewardship (ECHO) began in June 2014 and each session includes didactic lectures and patient case presentations. From weekly videoconference sessions, GPs learn knowledge about opioid prescribing and tapering. **Objective:** This study assesses the impact of ECHO on opioid prescribing behaviours of GPs who attended ECHO sessions versus those who did not. **Design:** Population-based retrospective cohort study. **Setting:** Primary care practice settings across the province of Ontario (Family Health Teams, Community Health Centres, and fee-for-service solo practices). **Participants:** GPs who attended ECHO vs. GPs who did not. **Intervention:** The ECHO program is the primary intervention. Sixteen professions are represented in the chronic pain team of specialists: physiatry, family medicine, neurology, addiction medicine, psychiatry, psychology, nursing, pharmacy, physical therapy, occupational therapy, chiropractic, social work, and clinical librarian. **Outcome measures**: Opioids prescribed per day as calculated by morphine equivalents (MEQ). **Results:** It is expected that GPs who attend ECHO will prescribe opioids according to national best practice guidelines, which may include tapering patients off high doses of opioids. Due to knowledge gained in ECHO, GPs may also increase their opioid prescribing by accepting more patients with chronic pain. We may also find changes in dangerous polypharmacy (benzodiazepines + opioids, CNS depressants + opioids), dispensing frequency, and type of opioid prescribed (switch from short-acting to long-acting opioids). **Conclusion:** ECHO may change GPs' opioid prescribing behaviours. This may help the ongoing opioid crisis in Ontario.

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Barriers to Accessing Primary Healthcare Among Bangladeshi Immigrant Men in Canada

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Background: Even though Canada has a universal health care system, immigrants face many challenges in accessing primary healthcare services. As the level of immigration to Canada continues to increase, it is crucial to understand the nature of barriers to care immigrants face. A qualitative research was conducted among a sample of Bangladeshi immigrant men to capture their experience to primary healthcare access and disseminate results broadly to inform healthcare providers, stakeholders, and policy makers to reform feasible approaches to enhancing access to care. **Methods:** A qualitative research using focus groups was conducted among a sample of first generation Bangladeshi immigrant men who had some experience in primary healthcare in Canada. **Data collection and analysis:** Six focus groups were conducted among 38 participants (each FG consists of 5-8 participants) in their preferred language, Bengali. Demographic information was collected prior to each focus group. Descriptive statistics was used to identify their socio-demographic characteristics. Thematic analysis was applied to the qualitative data set. **Results:** All focus groups have highlighted long wait time as an important barrier in accessing healthcare services. Long wait at emergency room, difficulties to get access to GP when get sick, slow referral process, and long wait at the clinic even after making an appointment impacts their daily chores, work, and access to care. Language is another important barrier that impedes effective communication between physicians and immigrant patients, thus quality of care. No access to medical records for walk-in doctors, insufficient lab/diagnostic services, lack of urgent care, and unfamiliarity about Canadian healthcare systems are some of many other barriers emerged from the focus group discussions. **Conclusions:** Accessible primary healthcare is important for the health of immigrant populations in Canada. It is important to recognize the extent of barriers to effectively shape public policy and improve access to primary healthcare.

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511 Global Research Landscape in Primary Care Among Immigrant Populations: A bibliometric analysis

Tanvir Turin Chowdhury*, MBBS, MS, PhD; Fahmida Yeasmin, MSc; Mohammad Ziaul Islam Chowdhury, MSc

Introduction: Research suggests that immigrants face many challenges in accessing primary healthcare services after migrating to a new country. As the magnitude of migration is in rise in global scale, it is crucial to understand the research landscape in this domain. **Methods:** All the articles on "Primary care" and "Immigrants" published between 2008 and 2017 (ten years) were selected and downloaded from the Medline database.The following keywords were used for the search: "Primary HealthCare","Primary care", "Primary Care System","Family Physician","Family Doctor","Family Medicine","General Practice" and all of its variants and "Immigrant","Emigrant","Migrant","Refugee","Foreigner","Asylum Seeker","Alien","Visible Minority","vulnerable minority". These articles were coded for publication year, country of first authors' affiliation, and article type. We have investigated the share of research output of the top ranking 20 countries along with the trend over time. Also, we have investigated this share of research output weighted by other factors such as GDP, population and R&D expenditure of GDP of each country. **Results:** The search generated 934 papers (4 Clinical Trials, 9 Case Reports, 3 Meta-analysis, 43 reviews, and 821 Original articles). In terms of publication volumes, the US (30.91%), Spain (10%) and Canada (9.77%) were the most productive countries. When adjusted for country population, Norway (6.31/106), Sweden (3.02/106) and Netherlands (2.41/106) occupied the highest ranks. Jordan, Norway, and Spain occupied the top three positions while GDP was accounted for. Canada was in 4th position and in 6th for publication/million population and publication/billion GDP respectively. **Conclusion:** Canada is one of the top contributors to primary care in immigrant population-related research. But a comparison using GDP and the percentage of GDP spent on research and development showed that smaller European countries are more productive.

Resident

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512 Subjective Reasons Patients Visit the Emergency: Immigrants vs non-immigrants: Work in progress

Karen Tong*, MD; Kelly Hennegan; Hao Cheng Shen; Katerina Giannos; Lawrence Slapcoff; Alina Dyachenko, MSc; Renata Sava, MD, CCFP

Context: Immigrants have been shown to often seek treatment at hospital emergency departments (EDs) for reasons other than the seriousness of their medical condition. There is however little literature exploring their perspective. **Objective:** To compare the subjective reasons between recently immigrated (< 5 years) and long-time Canadian resident patients' decision to seek treatment for non life-threatening complaints at the ED. **Design:** Cross-sectional survey. **Setting:** Waiting room of the ED at St. Mary's Hospital, in Montreal. **Participants:** English- or French-speaking patients aged 18 years or over, present in the ED waiting room between 8 am and 8 pm. Of 588 patients included, 116 were recent immigrants and 472 long-time citizens (223 immigrated > 5 years ago and 249 were born in Canada). **Main outcome measures:** The number of subjective reasons in each category (medical necessity, convenience or preference for the ED) behind a patient's decision to seek care at the ED. Multivariable linear and logistic regression was performed. **Results:** Compared to new immigrants, long-time citizens tend to have more reasons to go to the ED related to convenience (LSmean 1.2 vs 1.6, $p < .05$) and preference for the ED (LSmean 0.5 vs 0.9, $p < .05$). While medical necessity is present in most patients' rationale (83.16%), this motivation is more important for new immigrants (OR 1.77, CI 0.95-3.3, $p = .07$). **Conclusion:** New immigrants seem to choose to go to the ED due to medical necessity, while long-time Canadian residents tend to base their decision on the convenience of the services offered in the ED as well as its overall environment. This may be due to the better familiarity of established citizens with Quebec's healthcare system, and their likely dissatisfaction with other sources of medical care.

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513 Multi-stakeholder Partnerships to Promote Access to Primary Healthcare for Vulnerable Populations: Qualitative results

Ekaterina (Katya) Loban*, MA, PG Dip Law; Cathy Scott, PhD; Virginia Lewis, PhD; Susan Law, PhD; Jeannie Haggerty, PhD

Objectives: Partnerships bring organizations (and individuals) together to achieve outcomes greater than those that can be achieved working independently. This qualitative study aims to shed light on the processes and approaches that enhance the effectiveness of multi-stakeholder partnerships in the context of care transformation in Primary Health Care (PHC). **Methods:** This research is nested within a participatory action research program in which researchers, decision makers, clinicians and other stakeholders codesign, implement and evaluate organizational innovations to improve coverage and accessibility to appropriate PHC for vulnerable patients. Methods in the longitudinal multiple-case study of partnerships in Quebec and Ontario included: a) review and secondary analysis of data from documents; b) non participant observation of partnership meetings; and c) semi-structured in-depth interviews with stakeholders. **Results:** The partnerships were described as being driven by research but nourished by the practice of non-academic stakeholders. They were seen as unique learning experiences and innovative means of tackling complex problems in the context of fragmented PHC. Continued stakeholder engagement was linked with partnerships' strong alignment with members' professional/organizational goals. Other facilitators included optimal size and composition of the teams, various ways of engaging stakeholders and soliciting input, and a strong centralized infrastructure. Barriers included the complexity of addressing the needs of different stakeholders, substantial time commitments, and change fatigue. More effort is required to ensure the sustainability of interventions. **Conclusion:** The results indicate that multi-stakeholder partnerships are an optimal mechanism for addressing multifaceted issues in the context of PHC and for adapting interventions to complex and rapidly changing contexts.

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514 Collaboration interprofessionnelle pour les patients autochtones atteints de maladies chroniques : Travail en cours

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Contexte : Notre groupe de médecine de famille universitaire de Saint-Charles-Borromée (GMF-U SCB) couvre une clientèle de 2000 patients autochtones Attikamekw. Le suivi des maladies chroniques chez ces patients nécessite une organisation du travail optimale afin d'offrir des soins de qualité. Plusieurs barrières sont présentes pour différentes raisons. Optimiser la collaboration interprofessionnelle entre les divers intervenants est une des façons de traverser ces barrières. Une clinique multidisciplinaire spécialisée en santé autochtone a été mise sur pied. **Objectifs :** Décrire les modes de collaboration interprofessionnelle et évaluer ceux-ci afin de trouver des pistes d'amélioration visant à optimiser la prise en charge des patients autochtones présentant une maladie chronique et consultant à la clinique au GMF-U SCB. **Type d'étude :** Devis qualitatif exploratoire descriptif. **Participants :** Médecins de famille, résidents en médecine familiale, infirmière clinicienne, infirmière auxiliaire, infirmière praticienne (IPSPL) et pharmacien du GMF-U SCB. **Intervention :** Entrevues semi-structurées de groupe et individuelles. **Paramètre à l'étude :** Mécanisme de collaboration interprofessionnelle entre les membres de l'équipe. Rôle de chaque intervenant. **Résultats :** Les résultats attendus sont des pistes de solution pour améliorer la collaboration interprofessionnelle. **Discussion :** C'est en définissant davantage les rôles de chacun et en échangeant sur les pratiques de chacun que nous trouverons de nouvelles façons de travailler en équipe selon un modèle de collaboration interprofessionnelle et que nous améliorerons les soins offerts aux patients autochtones. **Conclusion :** L'application des pistes de solution aura un impact direct sur la pratique et sera transposable à d'autres cliniques œuvrant en santé autochtone.

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515 Projet pilote évaluant le dépistage à l'urgence de la violence entre partenaires intimes

Stéphanie Malherbe*, MD, CCMF (MU) ; Emma Duchesne

Contexte : La violence entre partenaires intimes (VPI) est omniprésente dans toutes les sphères socio-économiques. Tous les six jours au Canada, une femme meurt des suites de VPI, et 44 % de ces femmes s'étaient présentées à l'urgence d'un hôpital dans la dernière année. Les visites à l'urgence sont donc une opportunité unique de pouvoir dépister la VPI. **Type d'étude :** Enquête descriptive Lieu : Le service d'urgence (SU) de l'Hôpital Montfort (HM), desservant une population diversifiée au niveau du langage, de la culture et des marqueurs socio-économiques. **Objectif :** Évaluer l'implémentation d'un programme de dépistage systématique de la VPI au SU de l'HM. Population cible : Femmes âgées de 16 à 45 ans visitant le SU de l'HM. Intervention : Le questionnaire Q2 sera administré de façon systématique en français ou en anglais aux participantes se présentant au SU ; ceci sera fait par l'infirmière ou le médecin, en tenant compte de la sécurité et de la confidentialité. Q2 : 1 — Avez-vous été physiquement blessée par quelqu'un dans la dernière année ? 2— Est-ce que votre partenaire intime actuel ou un ex vous fait craindre pour votre sécurité ? Des entrevues avec le personnel permettront de mesurer l'impact sur leur charge de travail. Nous offrirons de l'aide et les contacts des services communautaires appropriés aux femmes victimes de VPI. **Principaux paramètres à l'étude :** Une comparaison entre le nombre de patientes respectant le critère d'inclusion et le nombre de questionnaires administrés sera effectuée pour mesurer l'efficacité de notre intervention. Nous mesurerons l'incidence des cas positifs de VPI au SU, et comparerons les groupes d'âge. Le taux d'incidence de VPI chez les patientes visitant le SU sur une période de 6 mois sera tabulé. L'incidence des cas positifs sera extrapolée à 1 an. Les impressions du personnel seront recueillies et analysées. **Résultats/Conclusions :** À venir.

Medical Student

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516 Réduction des biopsies du sein grâce au biomarqueur klotho : Travail en cours

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Contexte : Dans le cadre du dépistage systématique du cancer du sein, beaucoup de femmes doivent subir des biopsies du sein suite à des résultats anormaux de mammographie. Le taux de faux positifs de 20 % engendre beaucoup d'anxiété et de douleur. Aucun outil complémentaire à la mammographie pouvant aider les médecins de première ligne à stratifier leurs patientes n'est disponible pour éviter ce surdiagnostic. Les biomarqueurs sont des molécules qui peuvent être utilisées dans le diagnostic de différentes maladies. Il a été démontré que, parmi ceux-ci, la protéine klotho a un effet protecteur dans plusieurs cancers, dont le cancer du sein. Son utilisation n'a jamais été évaluée dans un contexte de complémentarité avec la mammographie pour réduire les biopsies du sein inutiles. **Objectif :** Évaluer s'il y a une corrélation entre le dosage sérique de la protéine klotho et une indication de biopsie du sein qui s'est avérée inutile. Déterminer la pertinence de poursuivre vers une étude à plus grande échelle. **Type :** Il s'agit d'un projet pilote et d'une étude observationnelle transversale. **Participants :** Les femmes majeures référées en biopsie diagnostique pour une lésion suspecte à la mammographie. **Interventions :** Dosage de klotho avant la biopsie du sein. **Paramètres :** Comparaison des valeurs sériques de la protéine klotho entre les femmes dont la biopsie s'est avérée négative et celles dont elle s'est avérée positive pour un cancer du sein. **Résultats :** Le recrutement a commencé, les résultats sont à venir. **Discussion :** Les résultats détermineront s'il existe une corrélation entre le dosage de la protéine klotho et une biopsie inutile. Ensuite, nous déterminerons un seuil de protection au-delà duquel il serait peu probable que la masse au sein soit cancéreuse afin de réduire le nombre de biopsies inutiles. **Conclusion :** Les résultats vont servir à justifier une étude à plus grande échelle.

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517 Is Adherence to Cancer Screening Associated with Knowledge of Screening Guidelines?

Aisha Lofters, MD, PhD, CCFP; Deanna Telner*, MD, MEd, CCFP, FCFP; Sumeet Kalia, MSc; Morgan Slater, PhD

Objective: 1. To determine if knowledge of cancer screening guidelines was associated with documented screening participation. 2. To assess the feasibility and acceptability of linking electronic survey data with clinical data in the primary are setting. **Design:** An electronic survey was developed to assess patient knowledge of screening guidelines. Patients were approached in the clinic waiting room to complete the survey via tablet (Site A) or sent an email inviting them to participate (Site B). Participants were asked to consent to linkage of their survey results with their electronic medical record (EMR). **Setting:** St. Michael's Hospital Academic FHT and South East Toronto FHT. **Participants:** Patients meeting age criteria for cancer screening. **Main outcome measures:** Responses to each of the three screening knowledge questions were classified as correct/incorrect. To assess the association between screening knowledge and behaviours, we conducted a subgroup analysis of participants who consented to linkage of their survey results to their EMR. **Results:** 1682 primary care patients participated: 1436 via email (response rate 24.8%) and 247 to the waiting room survey (response rate 67.5%). Over 80% of participants agreed to linkage of their survey responses to their clinical data. While knowledge of cancer screening guidelines was generally low (e.g. 6.9% correctly identified when to initiate cervical cancer screening), this was not significantly associated with screening uptake. **Conclusion:** Although knowledge of screening guidelines was low among patients in our study, this was not associated with screening participation. Further studies are needed to assess modifiable factors that can improve adherence to screening. Patients were willing to link self-reported data with their EMR data, which has significant implications for future research.

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518 Chaperone Use During Intimate Examinations: What patients have to say

Sonya Lee*, MD, CCFP, FCFP, MHSc; Sarah Jacobs, MSc; Maeve O'Beirne, MD, CCFP, FCFP, PhD

Objective: To understand patients' thoughts and attitudes on chaperone use during intimate examinations. **Design:** A qualitative study design influenced by grounded theory was used and semi-structured patient interviews were completed. Convenience sampling achieved variation in participant age and gender. Interviews were audio recorded and transcribed. Transcripts were reviewed independently by 3 investigators and subjected to thematic analysis with constant comparison. **Setting:** Academic community-based family medicine teaching practices. **Participants:** Patients were recruited from June to August 2017 from Calgary's 3 academic community-based family medicine teaching centres. Recruitment was by written invitation or in-person invitation during clinic visits. Inclusion criteria included all patients age 18 and over who consented to be interviewed. A total of 23 patients were interviewed; 9 males and 14 females. **Outcome measures:** Patients' thoughts and attitudes on chaperone use during intimate examinations. **Results:** Patients expressed a range of ideas and attitudes regarding chaperones. Patients valued communication and conversations about the presence of a chaperone, and many wanted an active role in decision making. Patients felt that chaperone use during intimate examinations had both positive and negative impact. Not all patients preferred to have a chaperone. Factors influencing patient preference included previous experiences, gender of the chaperone and of the physician, and the type of examination performed. Patient preference was also highly influenced by elements of the patient-physician relationship. There was no consensus regarding the role of the chaperone or who could act as one. **Conclusions:** While some patients may prefer a chaperone, many do not. Factors influencing preferences are multidimensional and complex, and the patient-physician relationship plays a significant role. Patients want to be involved in the conversation and decision making regarding chaperone use. In contrast with some provincial recommendations, universal use of chaperones is not in line with patient expectations or desires.

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Predictors of Pharmacotherapy for Dementia in a Canadian Family Practice Setting

Graeme Schwindt*, MD, PhD, CCFP; Liisa Jaakkimainen, MD, CCFP, FCFP, MSc

Objective: Cases of incident dementia are growing in Canada as the population ages. Cholinesterase inhibitors (ChEIs) offer symptomatic benefit in many individuals with dementia, but have side effects and contribute to polypharmacy. In a health care system where access to specialists may be delayed by wait times, family physicians often make treatment decisions with such patients. There is a paucity of data on the rates and predictors of pharmacotherapy for dementia in Canadian primary care. **Design:** Retrospective case-control design comparing patients with a history of any treatment with ChEIs vs. those without treatment on a number of predictors. **Setting:** A community family health team in Toronto, Ontario (Sunnybrook Academic Family Health Team). **Participants:** Active family practice patients 50 years or older, with a diagnosis of Alzheimer's Disease or Dementia, identified using a case finding algorithm and manual chart review. 112 patients were included in final analyses. **Main outcome measure:** Treatment with ChEI vs. no treatment. **Results:** 66% of patients were treated with a ChEI. Of these, 29% stopped, the majority within six months. Older age and cardiac comorbidity were negative predictors of treatment in univariate analyses. Logistic regression showed only cardiac comorbidity remained a negative predictor when accounting for other variables. Degree of cognitive impairment as measured by MoCA, specialist consultation and polypharmacy showed no association with treatment. In a secondary analysis comparing patients treated by family physicians vs. specialists, those seen by specialists were younger and with less polypharmacy. Treatment and discontinuation rates did not differ between primary care and specialist groups. **Conclusion:** In a Canadian primary care setting most dementia patients are treated with a cholinesterase inhibitor. Presence of a cardiac comorbidity is a negative predictor of treatment. Patients seen by specialists showed no difference in treatment rates or discontinuation.

Medical Student

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Application of the Low Risk Ankle Rule in the Adult Population

Jaewoo (Jason) Park*; Hanna Pingal; Lori McCrystal; Lauren Self, MDCM CCFP (EM)

Objective: The Low Risk Ankle Rule (LRAR) has been validated in the pediatric population and has been successfully implemented into clinical practice. The Ottawa Ankle Rule (OAR) is routinely used in adult patients. The aim of the present study is to compare the clinical usefulness of the LRAR and the OAR in an adult population. **Design:** This is a prospective non-interventional study analysing the sensitivity and specificity of the LRAR and OAR. A clinical assessment tool was used to collect the required data. **Setting:** The study took place in the "fast track" area of the emergency department at Credit Valley Hospital, a high-volume community hospital in Ontario, over a 6 month period (15/07/2017 – 15/01/2018). **Participants:** Patients over the age of 16 who presented to the emergency department with an isolated ankle injury and assessed using a standardized data collection form were included. Exclusion criteria consisted of presentation to the emergency department more than 72 hours after the injury, injury to the affected ankle within the past three months and developmental delay. Data was collected on 169 patients, 119 of whom met the inclusion criteria. **Main outcome measures:** The primary outcome measure is whether the LRAR can significantly reduce the number of radiographs ordered without missing any clinically significant fractures when compared to the OAR. **Results:** All 119 patients (100%) had ankle radiographies performed. The LRAR had a sensitivity of 93.8% and specificity of 22.3%, while the OAR was 100% sensitive and 31.1% specific for clinically significant fractures. If implemented, the OAR would allow for 7% fewer X-rays when compared to LRAR. **Conclusion:** The LRAR shows lower specificity and sensitivity than the OAR in an adult population and would therefore encourage unnecessary imagining. The OAR is a more accurate decision rule in the adult population.

521 Factors Influencing Family Physicians' Referral for Bariatric Surgery: A systematic review

Nardhana Sivapalan*, MD; David Barber, MD, CCFP; Linda Chan, MPH; Nancy Dalgarno, PhD;
Boris Zevin, MD, PhD, FRCSC

Objective: To identify the factors that influence family physicians' decision to refer eligible patients for bariatric surgery. **Design:** Systematic review. **Setting:** MEDLINE, Embase, and PsycINFO were searched using a combination of MeSH and non-MeSH terms. Reference lists of included articles were also searched. **Study Selection:** Articles were included if they were: peer-reviewed, published in English, participants were primary care physicians, and they examined factors that affected referral of adult patients to bariatric surgery. Articles were excluded if they were: reviews, abstracts, case reports, editorials, pilot studies, focused on a pediatric population, looked at obesity management in general, and did not explore factors that affected referral to bariatric surgery. **Main outcome measures:** Two reviewers independently screened 882 articles identified from the search, appraised the quality of the included articles, and extracted data on the study characteristics, and factors that affected referrals. Disagreements on article selection, quality appraisal, and data extraction were resolved through consensus. **Findings:** From the 882 articles, 12 were included. Primary care physicians were hesitant to refer patients for bariatric surgery due to: fears of complications and side effects, the cost and availability of the procedure, a perception that the procedure was a 'quick fix' or last resort, and negative experiences they had with patients who had the surgery. Factors that encouraged physicians to refer were direct requests from patients, previously failed interventions, and patients with obesity-related co-morbidities. Overwhelmingly, physicians who were knowledgeable of the risks and benefits of bariatric surgery were more likely to refer patients. **Conclusion:** Physicians' lack of knowledge about bariatric surgery is a barrier for referrals. Education about bariatric surgery, through continuing professional development, would support family physicians in providing more effective care to their patients with obesity. Further research should explore patient attitudes and health system factors that could affect referrals for bariatric surgery.

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522 Agreement Between Primary Care and Hospital Diagnosis of Schizophrenia and Bipolar Disorder

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Objective: People with serious mental illness die 10-25 years sooner than people without these conditions. One barrier to improving the health of people with mental illness relates to a lack of coordination between mental and general health services. Accurate diagnostic information across settings is a key facilitator of coordinated care. We identified whether labeling for schizophrenia and bipolar disorder was concordant between primary care and hospital records, and explored predictors of concordant labeling. **Design:** Retrospective cross-sectional observational study using de-identified data from the Health Databank Collaborative, a linked primary care-hospital database in Toronto, Canada. **Setting:** North York Family Health Team (a group of 77 family physicians in Toronto) and North York General Hospital (a large community hospital in Toronto). **Participants:** Patients 16 years of age or more with schizophrenia and bipolar disorder. **Main outcome measures:** Diagnostic concordance between primary care and hospital records Estimates of missing labels in both settings using capture-recapture modelling. **Results:** We identified 196 patients with schizophrenia and 370 patients with bipolar disorder. Overall diagnostic concordance between primary care and hospital records was low: 19.9% for schizophrenia and 15.7% for bipolar. Patients with multiple inpatient visits (2+) were more likely to have concordant diagnostic information than those with no inpatient visits (for schizophrenia: OR 5.75; 95% CI 1.47 – 22.42, for bipolar: OR 7.92; 95% CI 2.89 – 21.68). Capture-recapture modelling estimated that 39.1% of the total patients identified with schizophrenia (95% CI 28.3–49.8) and 26.4% with bipolar (95% CI 17.4–35.4) had missing labels in both settings. **Conclusion:** In this sample of patients accessing care at a large family health team and community hospital, concordance of diagnostic information about serious mental illness between hospital and primary care records was low. Interventions should be developed to improve labeling and continuity of care.

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523 Evaluation of an Emotion-Focused Mindfulness Group in Family Practice: Work in progress

Cleo Haber, MSW, RSW; Rodelyn Wisco, MSW, RSW; Joanne Permaul, MA, CCRP

Objectives: 1) To examine whether patients living with symptoms of depression and anxiety who participate in the Emotion-Focused Mindfulness (EFM) group, show an increase in self-compassion and whether this improvement is sustained two months following the completion of the group. 2) To examine whether participation in the EFM group lowers symptoms of depression, anxiety and shame, as well as increases level of functioning. **Study design:** Non-controlled, open-label, repeated measures intervention study; two-year feasibility study. **Setting:** Multidisciplinary academic urban primary care practice, Toronto. **Participants:** Adults proficient in English, participating in EFM groups with symptoms of depression and anxiety. **Intervention:** EFM is an 8-week group intervention with a 4-hour weekend retreat day combining emotion focused therapy with unguided meditation and journaling and a didactic teaching component. **Main outcome measures:** Measures include the Neff Self-Compassion Scale, Internalized Shame Scale (ISS), positive and negative affect (PANAS), level of functioning experienced in relation to mental health problems (WHODAS) and depressive and anxiety symptoms (PHQ-SADS). **Results:** Of 46 patients approached to participate, 40(87%) agreed and consented. Results are included for 4 of 6 completed cohorts. Paired t-tests compared mean scores for 22/40(55%) participants who completed measures at baseline (pre) and 2 month post follow-up (post). Statistically significant changes in mean scores were found in the Neff Self-Compassion Overall Scale (pre= 56.4; post=71.3; p=0.001); the somatic symptom severity score (pre=12.0; post=8.5; p=0.021), the anxiety severity score (pre=11.0; post=8.1; p=0.004), and the depression severity score (pre=12.1; post=9.4; p=0.043) of the PHQ-SADS; and the overall score of the ISS (pre=52.6; post=45.2; p=0.032). **Conclusions:** Based on current data collected, participation in the EFM group showed a statistically significant increase in self-compassion, and a significant decrease in depression, anxiety, somatic symptoms, and internalized shame. Negative Affect scores are trending towards a decrease in value, however this is not presently statistically significant.

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What Can You Recommend Apart From Antibiotics Doc?

Manish Ranpara*, MBBCh; James Dickinson, MBBS, PhD, CCFP

Context: Upper Respiratory Tract Infections (URTIs) are commonly seen in family practice, and they are the most common reason for children under the age of 18 presenting to the emergency department. The majority of URTIs are viral and self-limiting. However, a recent study showed that nearly half of antibiotic prescriptions for acute URTIs in the elderly are inappropriate. In light of the scrutiny antibiotic prescriptions face, we examined what guidelines recommend instead of antibiotic prescriptions for URTIs. **Objective:** To summarize recommendations from guidelines regarding interventions for acute URTIs instead of antibiotics when appropriate. **Design:** Literature review. **Methods:** A database search was completed using PubMed, MEDLINE, and Google Scholar. Key terms searched included various permutations of upper respiratory tract infection, guideline, pharyngitis, sinusitis and otitis media. Articles found were screened for the following inclusion criteria: National or special interest group guidelines in English published between 2008 and 2018. Guidelines from developing countries and position statements were excluded. Where duplicates were found, the most recent version was used. Fifteen articles met the inclusion criteria and were reviewed for their recommendations. **Results:** Observation and follow-up, or a delayed prescription are advised if antibiotics may be indicated later. Most guidelines recommend analgesia for pain. Common symptomatic and adjunct recommendations are intranasal steroids and saline irrigation for acute rhinosinusitis. A couple of guidelines recommend decongestants for acute otitis media. Only one guideline recommends self-care for pharyngitis by using medicated lozenges and adequate fluid intake. Patients should be educated on the natural history and red-flags for URTIs. Only 6 guidelines explicitly mention alternative medicine, and all recommend against it. **Conclusion:** Clinicians should offer patient education, review and reassurance instead of antibiotics when indicated. Delayed prescriptions can be used in certain situations. Symptom management is appropriate but recommendations vary across guidelines.

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Feasibility and Implementation of a Healthy Lifestyles Program: A six-month interim assessment

Elizabeth Alvarez*, MD, MPH, PhD, CMCBT; Majdi Qutob, MD, MSc, MBA

Objective: To evaluate the feasibility and implementation of a year-long healthy lifestyles programs. **Design:** Pragmatic mixed methods pilot study including a randomized controlled trial and qualitative components. **Setting:** Community setting in Hamilton, Ontario. **Participants:** As a pragmatic trial, few exclusion criteria were applied to reflect traditional family practice populations. Inclusion criteria included English-speaking adults (18 years of age or older). **Intervention:** Participants were randomized to a more intensive program (MIP) (intervention) or a less intensive program (LIP) (control). These programs support participants in developing health goals, identifying barriers and facilitators to lifestyle changes, and creating action plans. The MIP also includes group sessions and individualized visits to address the “how to” gap to lifestyle changes, including mental health approaches. **Main outcome measures:** To study feasibility and implementation 1) Recruitment and retention rates, attendance in group and individual sessions, and completion of data 2) Resources needed to run the program, including the type and mix of health professionals, numbers and sizes of rooms for group and individual sessions, materials, costs and medical utilization 3) Feedback from multiple stakeholders, including participants, staff, and other health providers to improve the program and to determine its acceptability to determine changes in participant-directed and clinical outcomes 1) Changes in participant-directed outcomes through goal development and associated measures 2) Changes in clinically relevant outcomes, such as health-related quality of life, anxious and depressive symptoms, sleep, loneliness, stress, and other health indicators (e.g., HgA1C, weight). **Results/findings:**

The healthy lifestyles program started in May 2018, this presentation will highlight findings from the 6-month interim assessment, including implementation factors and secondary outcome measures. **Conclusion:** Rates of chronic conditions are increasing throughout Canada and internationally. This study is evaluating the feasibility and implementation of a person-centred healthy lifestyles programs to address these gaps in current care.

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LCHF Dietary Pattern for Obese/Diabetic Patients: Effective, safe, sustainable and easily prescribed

Dax Biondi*, MD, CCFP, MSc

Objective: To evaluate the effectiveness and safety of a low carbohydrate, high fat (LCHF) dietary pattern to promote weight loss and glycemic control. **Design:** Case series of 77 consecutive patients who attended a group counselling session, an individual consultation and minimum of 3, 20 minute follow-up counselling appointments. **Setting:** A general primary care outpatient practice of free-living patients. **Participants:** Obese patients, some of whom have type 2 diabetes mellitus. **Intervention:** A low carbohydrate, high fat dietary prescription, using the "MetabolicHealth Program" tool kit. **Main outcome measure:** Weight loss. **Results:** An average reduction of 10% body weight, 25lbs, 11cm of waist circumference and among pre-diabetic or diabetic patients, 0.8% hbA1c with no change in creatinine, LDL-C or blood pressure at 6 months of follow-up. **Conclusions:** A low carbohydrate, high fat dietary pattern can be prescribed in the primary care setting to promote weight loss and glycemic control safely.

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Randomized Controlled Trial to Improve Adherence to Choosing Wisely Recommendations in Primary Care

Alexander Singer*, MB BAO BCh, CCFP; Leanne Kosowan, MSc ; Lisa Lix, BSHEc, MSc, PhD, P.Sta;
Kheria Jolin, MSc, MD, CCFP; Alan Katz, MBChB, MSc, CCFP, FCFP

Objective: The Manitoba Primary Care Research Network (MaPCReN) provides quarterly practice feedback reports to primary care providers. Using MaPCReN, this study assessed the impact of an audit and feedback intervention on prescribing and testing of four Choosing Wisely (CW) recommendations: antimicrobial prescriptions for viral infection, antipsychotic prescriptions for patients with dementia, screening serum vitamin D and annual blood screening (i.e. PSA). **Methods:** The study included 239 clinicians from 46 practices representing 162,728 patients. Cluster randomization was used to group the providers into one of three intervention groups: Control Group, Intervention Group A (general information on the CW recommendations) and Intervention Group B (personalized audit and feedback on the 4 CW recommendations). Provider rates of prescribing and testing around the four CW recommendations of interest were assessed during the audit and feedback interventions and compared to rates before the intervention, and to rates of prescribing and testing within the control group. **Results/findings:** Prior to implementation of the audit and feedback program, 15.6% (N=25,629) of the primary care encounters had an outcome contrary to the CW recommendations evaluated. Of these, 65.4% were prescribed an antibiotic for a viral infection, 28.7% received a PSA screen and 9.0% had a Vitamin D test. Among patients diagnosed with dementia, 17.0% were prescribed an antipsychotic medication. Statistical analysis of the study data is currently being conducted. This presentation will explore differences in prescribing and screening following implementation of the audit and feedback program. **Conclusions:** Our study aims to evaluate the effectiveness of a low cost and accessible audit and feedback mechanism for primary care providers. By reducing unnecessary care, we can improve population health and reduce health care costs.

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Improving Access to Care Through eConsultation – eConsult Manitoba: Work in progress

Alexander Singer* MB, BAO BCh, CCFP; Laurie Ireland, MD, CCFP; Michael Polan, MD, CCFP;
Luis Oppenheimer, MD, PhD, FRCS(C), FACS; Clare Liddy, MD, CCFP, FCFP, MSc; Rana McDonald, MA

Context: In Canada, long wait times and poor access to specialist care have been noted in several studies. In Manitoba wait time for speciality services are among the longest in the country. A recent evaluation demonstrated wait times are up to 29 weeks for specialist appointments, with variation by region and service. Timely access to specialist advice can improve patient health outcomes by lowering health care system costs and improving satisfaction for patients and providers. **Objective:** To improve access to advice from specialists through the implementation of eConsultation in primary care settings and to decrease the wait times for this advice. **Design:** Mixed methods implementation evaluation including; adoption measures and patient/provider satisfaction surveys. **Setting:** Online communication via primary care and specialist's settings throughout Manitoba. **Participants:** Participating primary care providers (family physicians and nurse practitioners) and specialists (from specialities with long wait times and/or high volume specialities) with valid licences to practice in Manitoba. **Intervention:** eConsult Manitoba is a secure web-based tool that provides a means for primary care providers to submit non-urgent, patient specific questions to a participating specialist. Specialists are requested to provide a response within seven days. eConsult Manitoba is modelled after Building Access to Specialists through Electronic

Consultation (BASE™), established in Ontario's Champlain region in 2010. The project was launched in Manitoba in December 2017. **Findings:** The volume of consults, services consulted and wait times for eConsult responses are collected on an ongoing basis. Nearly a full year of data will be available at the time of the FMF conference. Preliminary results from our patient satisfaction survey should also be available. **Conclusion:** It is expected that the implementation of eConsult Manitoba will improve access to specialty advice.

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Implementing an eConsult Service in a New Health Region to Assess its Generalizability

Clare Liddy*, MD, CCFP, FCFP, MSc; Isabella Moroz, PhD; Ariana Mihan; Erin Keely, MD

Objective: To evaluate the implementation of the Champlain BASE™ eConsult service in a new jurisdiction to test its generalizability. **Design:** We employed a multi-method approach to evaluate eConsult's implementation in the South East Local Health Integration Network (LHIN) of Ontario, Canada. **Setting:** Primary health care clinics in the South East LHIN. **Participants:** Primary care providers (PCP). **Intervention:** The eConsult service was implemented in the region. For our quantitative analysis, we drew on utilization data collected automatically by the service between February 1st and June 15th 2017. For our qualitative analysis, we conducted a thematic analysis of three focus groups, with PCPs and specialists participating in the pilot study. **Main outcome measures:** Quantitative measures included number of eConsults submitted, specialty group, specialist response time, referrals avoided, and PCP and patient satisfaction. Qualitative outcomes included key themes emerging from focus groups. **Results:** Forty-nine PCPs submitted 301 cases to 24 specialty groups. Monthly case volume grew steadily over the study period, from 15 in February to 90 in May. The most frequently requested specialties included dermatology (n= 59), cardiology (n=27), and gastroenterology (n=26). Specialists responded in a median of 2 days, and a referral was originally contemplated but ultimately avoided in 40% of cases. Providers spoke positively of the service, citing high levels of patient satisfaction. The recruitment of PCPs and specialists into the service was highly appreciated, describing advantages such as enhanced collegiality, increased trust and facilitated patient flow. **Conclusions:** Adoption of the eConsult service in the South East LHIN was successful. The service exceeded all adoption targets, and the number of completed cases demonstrated a consistently upward trend, suggesting continued growth beyond the study's duration. The service's rate of adoption, high levels of provider satisfaction, and usage data similar to other regions all demonstrate eConsult's generalizability.

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Moving Health Care Innovations Beyond the Pilot Phase

Clare Liddy*, MD, CCFP, FCFP, MSc; Erin Keely, MD

Context: Despite significant investment, health care innovations in Canada often fail to expand or sustain themselves beyond their pilot phase, resulting in wasted expenditure or siloing of important information that could be better leveraged to improve care on a wider scale. **Objective:** Using our experience in implementing the Champlain BASE™ (Building Access to Specialists through eConsultation) eConsult service, we outline four key considerations necessary to help pilot projects develop into sustainable, scalable health solutions. **Design:** We draw from our experience with the Champlain BASE™ eConsult service. Launched as a small proof-of-concept in 2009, the eConsult service has since completed over 30,000 cases and enrolled more than 1,300 primary care providers. It has grown from a regional service and is now being replicated in several provinces and expanding across Ontario. **Outcome measure:** Key steps to implementing sustainable and scalable healthcare innovations. **Results:** We identified four factors critical to our success in implementing and sustaining the eConsult service: 1) straddling the divide between research and practice, 2) making technology the vehicle rather than the driver, 3) staying flexible but focused, and 4) taking risks. Our presentation will highlight each step using concrete examples from the eConsult service. **Conclusions:** The success or failure of healthcare innovations can be influenced by external factors, but the right approach can greatly increase your chances of implementing a sustainable, scalable, and successful healthcare solution.

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Development of an Electronic Tool Based on Prescription Refills to Measure Medication Adherence

Alia Yousif*, MSc; Amélie Forget, MSc; Sandra Peláez, PhD; Maria-Kim Turcotte; Catherine Dalal; Geneviève Lalonde, MSc; Catherine Lemière, MD, MSc; Marie-France Beauchesne, PharmD, MSc; Lucie Blais, PhD

Objectives: In collaboration with family physicians and patients with asthma and chronic obstructive pulmonary disease (COPD), we aimed to develop e-MEDRESP, a tool based on prescription refills that will be integrated in electronic medical records (EMRs) to measure the adherence and dispensing of respiratory disease medications. **Design:** A sequential exploratory (mixed-methods) study with a user-centered approach. **Setting:** Family medicine clinics in Quebec. **Participants:** Family physicians and patients with chronic respiratory diseases treated in the primary care setting. **Methods:**

To design e-MEDRESP, we performed 5 focus groups with family physicians (3 focus groups; n = 20) and patients (2 focus groups; n = 15), along with 10 individual interviews with family physicians. e-MEDRESP was created based on algorithms developed to reflect end-users' recommendations and that were applied to prescription refills data recorded in the reMed drug claims database. We are currently collaborating with OMNIMED, a family medicine clinical service provider, who will integrate e-MEDRESP in its EMR. **Results:** Physicians and patients contributed to the development of the e-MEDRESP prototype, which contains graphical representations of the: 1) global annual adherence level to asthma or COPD controller medications prescribed; 2) annual adherence of each asthma or COPD controller medication prescribed; and 3) dispensing of each asthma and COPD rescue medications prescribed. Dispensed medications were also presented on a quarterly basis in the year preceding the medical visit. Colour codes and percentages were applied to designate adherence levels and facilitate the interpretability of e-MEDRESP. **Conclusion:** Physicians perceived e-MEDRESP as a tool to measure adherence in a timely manner, while enhancing physician-patient communication concerning optimal medication use. Our next step will be to conduct a 12-month feasibility study to evaluate physicians' use of e-MEDRESP and physician and patient satisfaction with the tool. We will also explore its capacity to improve adherence through a pre-post design.

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532 Barriers and Facilitators of Assessing Medication Adherence in Patients with Chronic Respiratory Diseases

Alia Yousif*, MSc; Sandra Peláez, PhD; Catherine Dalal; Maria-Kim Turcotte; Geneviève Lalonde, MSc; Catherine Lemière, MD, MSc; Marie-France Beauchesne, PharmD, MSc; Lucie Blais, PhD

Context: Medication non-adherence in patients with chronic respiratory diseases is notoriously low and is associated with suboptimal therapeutic outcomes. In order to intervene effectively, physicians first need to assess adherence accurately and in a timely manner, which can be challenging. **Objectives:** 1) To identify the barriers and facilitators of assessing medication adherence in chronic respiratory diseases, as perceived by family physicians and as reported by patients; 2) To explore participants' views on how prescription refills data can be used to facilitate the measurement of medication adherence in routine clinical practice. **Design:** Qualitative descriptive study. **Setting:** Family medicine clinics in Quebec. **Participants:** Family physicians and patients with asthma or chronic obstructive pulmonary disease (COPD). **Methods:** 5 focus groups were held with physicians and patients with asthma or COPD [3 with physicians (n=20) and 2 with patients (n=15)], along with 7 individual interviews with physicians. Transcripts of the discussions were coded and analyzed using a thematic approach. **Findings:** Main barriers to assessing and/or reporting medication adherence that were identified by both physicians and patients included patient reliability and beliefs regarding to medication intake, short duration of medical visits, and decentralized medical records. Physicians expressed the need to reinforce inter-professional collaboration as well as patient education, and voiced their concern relating to the lack of easily interpretable and objective information regarding medication use currently available in the clinical setting. **Conclusion:** Although inter-professional collaboration and a good physician-patient relationship are crucial in helping physicians to identify non-adherent patients in a timely manner, the lack of easily accessible and interpretable information regarding medication use constitutes an important barrier to assessing adherence. Results from this study will form the basis of the development of electronic tools based on prescription refills that will be tailored to the needs of family physicians and patients with chronic respiratory diseases.

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533 Withdrawn

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534 Is a Canadian Preventive Health App Acceptable and Useful? Work in progress

Cleo Mavriplis*, MD, CCFP, FCFP; Sharon Johnston, MD, LLM, CCFP; Tawnya Shimizu, RN, MN, NP-PHC; Manon Bouchard, RN, NP-PHC; Jennifer LeMessurier, MD, MPH

Context: Patients and clinicians need timely access to best-practice guidelines on health promotion and disease prevention to improve decision-making and uptake of evidence. A review of the literature, and search of the "App store" and "Google Play Apps" found no mobile application summarizing prevention guidelines for Canadian adults. Our project is developing such an app with content for patients and providers, based on a recently updated edition of our previously published preventive health care summary from 2016. **Objective:** To test the acceptability and usability of a Canadian preventive health mobile application on patients and providers. **Design:** Sequential explanatory design. Quantitative survey data from patient and provider testers will inform semi-structured interviews used to further understand testers' experience. **Setting:** Large urban academic family practice in Ottawa Ontario. **Participants:** Canadian adults 18 years of age and above. 30 patients and 10 primary health care providers (registered nurses, nurse practitioners, family physicians, family medicine residents). **Intervention:** Participants will be recruited by email and waiting room posters. They will use the app then fill out an adapted version of the System Usability Scale (SUS), a10 point scale used to evaluate mobile health apps. We will seek a purposive sample among all participants, covering the age spectrum, to carry out cognitive interviewing while they use the app. **Main**

outcome measures: Survey data will be collected and analysed to provide descriptive statistics. Interviews will be recorded, transcribed and analysed using qualitative thematic analysis. The results will inform the iterative process of improving the app. **Results/findings:** The results will inform the iterative process of improving the app. **Conclusion:** We aim to provide an acceptable and useful preventive app to Canadian providers and patients to improve uptake of preventive health measures. Our findings will add to research into best practices in developing mobile health applications for primary care.

Resident

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535 Development of Patient Educational Materials on Physical Activity for Management of Chronic Disease

Jane Thornton*, MD, PhD; Beth Bosiak, MSc; Emily Nicholas; Holly Finn; Sherry Teeter;
Payal Agarwal, MD, CCFP; Mike Heinrich; Noah Ivers, MD, CCFP, PhD

Objective: To gain insights from both patients and providers to inform the design of patient educational materials regarding physical activity in the management of chronic conditions. Physical activity counselling by primary care physicians is a key element of the multifaceted societal approach needed to address inactivity and the global burden of chronic disease. **Design:** Qualitative descriptive. **Setting:** Content was created in London, Canada, and patient interviews conducted in a large, urban academic primary care practice in Toronto. Final design occurred in London, England. **Participants:** Eighteen patients participated in interviews or focus groups to inform resource development. A purposive maximum variation sampling approach was used to promote sample diversity. Ten providers, researchers and designers provided additional feedback. **Intervention:** Seven evidence-based patient handouts were created based on the most commonly presenting chronic conditions in family practice, employing extensive patient and provider input. Patients were interviewed using a semi-structured guide regarding counselling preferences and types of resources they deemed helpful. The remainder of development followed an iterative process led by the first author and included feedback from the research and design teams. **Main outcome measures:** Patient and provider attitudes regarding design, language used, content, and amount of material. **Findings:** Most participants felt that physicians should discuss physical activity with all patients. Patients wanted their providers to offer recommendations tailored to their individual health context and circumstances. Patient and provider input was integral to content and design from beginning to end. Overall, the materials were very well-received. **Conclusion:** Individually tailored physical activity advice can and should be provided by primary care physicians to their patients. This study demonstrates that patients' perspectives are critical to ensuring effective design and uptake. Condition-specific patient educational materials provide a novel way to enable primary care physicians to counsel patients on physical activity in the management of chronic disease.

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536 A Decision Aid For Serious Illness To Increase Preparation for Decision-making

Michelle Howard, MSc, PhD; Carrie Bernard, MD, MPH, CCFP, FCFP; Marissa Slaven, MD, FRCPC;
Amy Tan, MD, CCFP (PC), FCFP, MSc; Rebecca Heyland; Alice Bailey, MB BCh BAO, CCFP;
Daren K. Heyland, MD, MSc, FRCPC

Context: For many older people with serious illness, medical decisions will be needed at a time they are incapable of communicating their wishes and prior advance care planning will be of benefit. However without adequate advance care planning, patients and families are often ill-prepared for communication and decision-making in interactions with health care professionals. Several studies have documented considerable discordance between patients' stated values and preferences for life-sustaining treatments, decisional conflict, and poor agreement about preferences between patients and their family members. **Objective:** To evaluate a novel decision aid to support patients (and their families or substitute decision-makers) in decision-making in serious illness, as part of advance care planning. **Design:** Parallel group randomized trial with wait list control group. **Setting:** Outpatient healthcare settings in Ontario, Canada. **Participants:** Community-dwelling people aged 65 and older and their self-identified substitute decision-maker. **Intervention:** A facilitated education session with a patient and substitute decision-maker, using a novel decision aid that helps patients clarify their authentic values and provides education about the medical treatment options in the context of serious illness. **Main and secondary outcome measures:** Score on a validated advance care planning engagement survey (measuring behavioral constructs e.g. self-efficacy, readiness for decision-making) – substitute decision-maker version and patient version. Satisfaction with and endorsement of the decision aid. **Results:** Recruitment is underway. An overview of the decision aid and baseline characteristics of participants will be presented. **Conclusions:** This novel decision aid may assist in improving substitute decision-maker engagement in advance care planning by preparing for decision-making regarding the use of medical treatments in serious illness.

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537 A Cluster-Randomized Trial Comparing Team-based Versus Clinician-Focused Advance Care Planning in Primary Care

Michelle Greiver, MD, CCFP, FCFP, MSc; Jeff Myers, MD, MSEd; Ivanka Pribramska, PhD; Rabiya Siddiqui, PMP

People want to spend their last months with family, not in the hospital. Most people prefer to die at home, but most do not. This study was developed in response to the needs of patients—the desire to have a voice in what happens to them, including choice and control over what treatments and tests to have and where death occurs. This project proposes to test ways to align patient preferences in end of life care with the health care provided and hopes to identify the best model for primary care practices to develop patient-centered plans. The primary care practices for this study are members of seven Practice-Based Research Networks (PBRNs) across the United States and Canada; The University of Toronto Practice-Based Research Network will represent one of the two Canadian PBRNs. We will conduct a 4-year cluster-randomized controlled trial (RCT) in 7 PBRNs to examine the comparative effectiveness of a facilitated, team-based Advance Care Planning (ACP) versus primary care clinician-focused ACP using the Serious Illness Care Program (SICP). The study will compare two important outcomes: 1) how much time patients spend at home and not in the hospital, and 2) whether the care provided matches patient goals.

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Advance Care Planning in a Home-based Primary Care Service in Vancouver, Canada

Margaret J. McGregor*, MD, CCFP, MHSc; Madison Huggins, MSc; Laurie Mallery, MD; Paige King, MD; Jay Slater, MD; Michelle B. Cox, MSc

Context: Advance care planning (ACP) for frail populations involves: quantifying patient's degree of frailty; identifying substitute decision-maker(s); educating patient and substitute decision-maker about the associated prognosis for their degree of frailty; encouraging physician/nurse practitioner navigated medical decision-making in advance of common health crises; and documenting decisions in a clear and accessible form to the formal and informal caregiving team. **Objective:** To describe the current state of ACP in a home-based primary care service for frail homebound older adults. **Design:** Cross-sectional descriptive study of ACP through chart review of randomly selected patients' electronic medical records. **Participants:** Patients registered in a multi-disciplinary, home-based primary care program. **Intervention:** Data extraction of ACP measures. **Outcome measures:** Clear documentation on the EMR "face sheet" of the extent of frailty, name and contact of substitute decision-maker, CPR designation, wishes regarding future hospitalization, and/or desire for palliation. **Results:** 200 patient charts were reviewed. The mean age was 88 years and a majority were women (68%). Over one half had dementia (54%). Review of the EMR face sheet found that just under three quarters (73%) had no quantification of frailty. Over one third (36%) had no identified substitute decision-maker and thirty-nine percent had no documentation of therapeutic preference in the event of an acute health crisis. Twenty percent had no documented "code" status. More nuanced ACP conversations were located in the clinical record but not easily identified on the EMR face sheet. **Conclusions:** In a frail population that received home-based care, important information for planning care was missing. Explicit documentation of frailty stage was relatively rare and the substitute decision-maker was not identified. Given the importance of quantifying frailty to inform ACP, it is not surprising that care plans were infrequently completed or difficult to locate. These elements of care planning are important foci for quality improvement.

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Systematic Review of Cluster Randomized Trials in Long-Term Care Facilities: Work in progress

Roni Kraut*, MD, CCFP; Lauren Katz; Derek S. Chan, MD, MBA; Roberto Alexanders; Sandy Campbell, MLS; Scott Garrison, MD, CCFP, PhD

Context: Cluster randomized trial design is increasingly being used in long-term care research. Cluster randomized trials are a type of randomized control trial, where groups of participants are randomized instead of individual participants. **Objective:** To determine attributes of cluster randomized trials in long-term care facilities including: year of publication, journal of publication, author discipline, location of study, funders, target of intervention, consent process, and number of participants in the study. **Design:** A medical librarian conducted the literature search up to April 1 2017. Two independent reviewers reviewed each paper. References of papers meeting the inclusion criteria were reviewed for completeness. Studies were included if the design was cluster randomized and participants were from long-term care facilities. For each accepted study, two independent data extractors captured data on the study attributes. **Results/findings:** Preliminary results of the literature search yielded 6051 unique papers; 5583 were excluded by title or abstract, 242 were excluded on full paper review, leaving 226 papers for data extraction. The accepted papers were published between 1976 and 2014, with 68% published in the last 10 years. The majority of the studies were conducted in the United States (24%), UK (18%) and Australia (10%). The median number of residents in each study was 214 (interquartile range 83 – 594). Studies were most frequently published in the Journal of the American Geriatrics Society (33 studies), followed by the Journal of the American Medical Directors Association (13 studies) and the International Journal of Geriatric Psychiatry (11 studies). The median impact factor of journals that published these studies was 3.59 (interquartile range 2.63 – 4.39). **Conclusion:** The final results will provide guidance to researchers designing studies in long-term care facilities.

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The Needs of the Many: NOSM students’ experience of generalism and rural practice

Roger Strasser*, MBBS, MClSc, FRACGP, FACRRM; Hoi Cheu, PhD

Background: The Northern Ontario School of Medicine (NOSM) opened in 2005 with a social accountability mandate focused on improving the health of the people of Northern Ontario. NOSM recruits students from Northern Ontario or similar backgrounds and provides Distributed Community Engaged Learning in over 90 clinical and community settings located in the region, a vast underserved rural part of Canada. **Aims:** In the context of a growing discourse on generalism, this paper explores the NOSM student and graduate experiences of generalism in rural practice. **Methods:** NOSM and the Centre for Rural and Northern Health Research (CRaNHR) tracking studies use mixed methods drawing on data from various sources including interviews of students, graduates and other informants. This paper reports on an arts-based research analysis of semi-structured interviews involving 37 graduating medical students and 9 practising NOSM graduates. **Results:** Key themes from student observations include an affinity for the Northern Ontario environment and a recognition that rural medicine involves a broad scope of practice. NOSM students consider generalist care as a comprehensive service with a strong focus on responding to the health needs of the community they serve. Beyond primary care, a rural medicine “true generalist” is viewed as a complete package, a physician who provides care ranging from promoting prevention to performing specialist tasks. **Conclusion:** Rural practitioners, particularly in family medicine, are extended generalists with a broad scope of practice guided by the health needs of the communities they serve. NOSM students’ and graduates’ experience of rural generalism is positive and highly influential in determining their career direction including speciality, scope and location of practice. NOSM’s generalist approach may be effective beyond rural applications and an advantageous approach for foundational medical education. Students and graduates report that the NOSM Distributed Community Engaged Learning prepares them well for rural generalist practice.

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Low-tech Models to Improve Family Medicine Residents' Procedural Skills Competencies: Work in progress

Clara Rocha Michaels*, MD, CCFP; Andrea Vasquez Camargo, MD, CCFP; Michell McCarron, PhD

Context: Simulation-based education provides medical students and residents with opportunities to develop skills via hands-on learning in a low-stress environment. High-fidelity simulation models can be cost-prohibitive; nevertheless, lower-tech models have also been shown to be effective for improving procedural skills. Faculty members at a Family Medicine residency program developed cost-effective, low-tech simulation models to enhance training opportunities for Family Medicine residents. **Objective:** To evaluate the use of low-tech models to enhance procedural skills training among Family Medicine Residents. **Design:** Use of The Simulation Design Scale to evaluate the low fidelity models’ effectiveness, realism, and ease of use. **Settings and participants:** a total of 22 first and second year Family Medicine Residents at the University of Saskatchewan, Regina site, participating in the study. Residents will complete The Simulation Design Scale survey at the end of their training program by June 2018. **Intervention:** Low-fidelity simulation model created by the authors along with porcine and bovine tissues were provided to residents during surgical skills sessions to perform digital rectal examinations, incision and drainage of thrombosed hemorrhoids, second-degree perineal repair, suturing, and foreign object removal. **Main outcome measures:** The main outcome is the effectiveness of the simulation models measure by the 5 points Simulation Design Scale. The secondary outcome is the calculation of acquisition and construction costs for simulation models; a per-resident cost was stabilised. **Results:** Survey results will be available at the end of the curriculum. The total cost of practice for the simulation models was $34 per resident. **Conclusions:** Low-tech simulation is a cost-effective solution for enhancing procedural skills training amongst Family Medicine residents. With minimal cost, programs can create valuable simulation training tools to facilitate hands-on learning for their residents. Effectiveness and simulation designed will be evaluated once the Simulation Design Scale is completed.

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Effectiveness of a New Family Medicine Procedural Skills Curriculum: Work in progress

Andrea Vasquez-Camargo*, MD, CCFP; Clara Rocha Michaels, MD, CCFP; Michelle McMarron, PhD

Context: Based on The College of Family Physicians of Canada (CFPC) list of core and enhanced clinical procedures, faculty members in an academic Family Medicine residency program developed a curriculum to provide residents with additional procedural skills training in order to increase self-confidence in their abilities and meet the competency standards. **Objective:** To measure the efficacy of a new procedural skills curriculum in improving Family Medicine Residents’ self-perceived competency performing core clinical procedures. **Design and participants:** An online survey was administered to 24 first and second year University of Saskatchewan, Family Medicine residents prior to commencement of the curriculum in July 2017. A second survey will be administered following the conclusion of the course in June 2018;

pre- and post-course results will be compared. **Intervention:** Implementation of a new surgical skills curriculum in a Family Medicine Residency Program. **Main outcome measures:** Residents were asked to rate their level of confidence for each one of the core clinical procedures on a three-point scale of “not at all confident,” “somewhat confident,” and “extremely confident”, before and after the curriculum implementation. **Results:** Fifteen out of 24 residents (62.5%) completed the pre-course survey. Confidence across procedural domains differed widely; e.g., all were somewhat or extremely comfortable with local anesthetic and instrument surgical knot tying; however, 12 (80%) were not at all confident with reduction of a dislocated radial head or incision and drainage of an external thrombosed hemorrhoid. Most (n=11/13) were confident that they have enough support from faculty to develop these skills, however. **Conclusions:** The results of the pre- and post-course surveys will be compared to assess improvements in self-perceived competency and self-confidence performing core clinical procedures following completion of the curriculum.

Medical Student

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Key Components of Effective Progress Reports for High Stakes Decisions About Resident Competence

Adam Mullan*; Deena M Hamza, PhD; Shelley Ross, PhD

Objective: To develop a framework of key elements that make a maximally informative progress report for high stakes decisions about resident competence. The Competency-Based Achievement System (CBAS) supports assessment for learning of family medicine residents to foster clinical competence. Several elements inform the progress of residents, including field notes documenting residents’ demonstrations of competence on specific Sentinel Habits and Clinical Domains. Evidence from quarterly progress reports collected by CBAS results in a high stakes decision on learner entrustability and competence. **Design:** Mixed Methods. **Setting:** A large urban family medicine residency program in Canada. **Participants:** De-identified progress reports from a cohort of family medicine residents; in addition to interviews with three program directors. **Analyses:** Summative (quantitative) and content (qualitative) analysis, and the integration of both components. An initial quality rubric for progress reports was established through a review of existing literature. The findings from this literature review were used to inform the development of questions used when interviewing 3 program directors. This was followed by further triangulation in the form of a pilot study examining 60 full progress reports. **Results:** Based on the rubric derived from both quantitative and qualitative methods, three central themes were identified as fostering high quality progress reports: 1) actionable comments that are specific and include reportable follow-up; 2) incorporating observations from multiple stakeholders, such as interdisciplinary team members and patients; and 3) detailed tracking of mutual reflection and discussion between resident and advisor. **Conclusions:** Progress reports will have varying content depending on the resident, the advisor, and the interaction between the two; however, this mixed methods inquiry has established three key components of effective progress reports. Incorporating actionable comments with follow-up; observations from multiple stakeholders; and detailed narratives produce a concise report that provides an integrated summary of resident progress towards competence.

Resident

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Exploring Family Medicine Resident Socialization Process in Horizontal and Block Style Curriculums

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Objective: To explore whether there are significant differences in family medicine residents’ perceived socialization experiences through their family medicine curriculum (horizontal vs. block curriculum). **Design:** Qualitative descriptive study using data obtained through key informant interviews. The goal was to recruit one PGY2 resident from each of the 14 University of Toronto family medicine training sites. Interview questions were chosen to explore individual, relational and collective identities. Interviews were recorded, transcribed and de-identified. Thematic analysis was performed using Nvivo and manual pawing/keyword-in-context techniques. Themes were identified within four domains (1. family medicine rotations, 2. off service rotations, 3. rite of passage, 4. physician identity formation) and analyzed separately for block and horizontal curriculums. **Setting:** Department of Family and Community Medicine, University of Toronto. **Participants:** 9 PGY2 family medicine residents (3 residents from the horizontal curriculum and 6 residents from the block curriculum). **Findings:** Both groups had no concerns regarding inadequacies in their training or involvement in patient care during their family medicine rotations. They both had preferences for their family medicine curriculums, although block residents questioned the practicality of their curriculum. In terms of their off service rotations, both groups were overall satisfied, although horizontal residents identified a disadvantage due to the disjointed nature of their rotations. Independence, professional growth, confidence and readiness for practice was consistent between curriculums. **Conclusion:** Residents in both curriculums appear satisfied with their clinical training experiences. The majority of residents felt prepared for independent practice. The socialization process appears to have slight differences in the two curriculums, however, residents in both curriculums were uncertain that these differences were significant. This remains an exploratory study, and as such, we are unable to make significant conclusions about the differences between the two curriculums. However, our results identify new themes that warrant further investigation.

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Impact of Resident as Teacher Program on Family Medicine Residents Interest in Teaching

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Objective: To determine if participation in a Resident as Teacher (RAT) program increases interest, comfort and confidence in clinical teaching of family medicine residents. **Design:** Two group pre- and post-survey. **Participants:** Second-year, urban and rural family medicine residents at a Canadian university. Urban residents (n=58) participated in the RAT program. Rural residents (n=20) underwent a comparable academic curriculum but did not take part in the RAT program. Intervention: The RAT program was introduced midway through urban residency training and consisted of an orientation session and introduction of key teaching principles. Urban family medicine residents facilitated 6 communication or physical examination sessions to medical students under supervision of a faculty coach. **Outcome measures:** Levels of agreement on perceptions of the importance and value of teaching, enjoyment and interest in teaching were measured on a 10 point scale (1=Not at all agree, 10=Completely agree). The pre-survey was conducted before RAT program implementation and the post survey was documented at the end of the second year of residency. Differences between urban and rural residents were analyzed. **Results:** Twenty one urban and thirteen of the rural residents completed both surveys. Urban residents reported an increased level of agreement/comfort/skill/familiarity that was statistically significant ($p < 0.05$) in areas of providing feedback, direct observation of a learner, being a small group facilitator, being familiar with the principles of teaching and learning, being familiar with teaching elements of physical examination, and principles of effective communication in the medical interview. Rural residents reported a statistically significant increase ($p<0.05$) in teaching confidence in providing feedback and direct observation of a learner. **Conclusion:** Urban family residents who participated in a RAT program report a statistically significant increase in confidence and skill in teaching in multiple domains compared to their rural counterparts who did not teach in a RAT program.

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Influences on Preceptor Perceptions of The Feedback Shared with Learners in Workplace Teaching

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Objective: To better understand actual and perceived feedback behaviours in the workplace. **Background:** Feedback shared with learners in the clinical workplace is shaped by multiple factors. These factors, both individual and environmental, result in subtle differences to feedback patterns across work settings (ward or clinic) and across disciplines. We observed several preceptors across multiple workplace learning sessions, and interviewed the preceptors to learn more about their perceptions of their own feedback patterns. **Design:** Qualitative (part of a mixed methods observational study). **Setting:** Clinical workplace teaching sessions across multiple contexts. **Participants:** Family physicians and other specialists (N=23) participated in a series (3-4) of short individual interviews immediately following a workplace clinical teaching session. **Intervention:** Individual interviews were used to explore preceptors' reflections of sharing feedback immediately following a teaching session. **Main outcome measures:** Interviews post-teaching session, and field notes taken during sessions. Thematic analysis resulted in identified elements that were then compared between family physicians and other specialists. Field notes were incorporated in this analysis to help contextualize findings. **Results:** Thematic analysis revealed that family physicians and other specialists shared some similarities, but also showed differences in what constitutes feedback, and how, when and why feedback should be given. Environmental factors were also found to influence feedback. **Conclusion:** Feedback shared in clinical workplace settings is sensitive to multiple factors. Understanding how individual (e.g. Style of providing feedback) and environmental factors interact is essential to designing appropriate faculty development to improve quality of feedback provided. Preceptors from different disciplines differ in their perceptions of what influences the feedback they share; this suggests a one-size-fits-all approach to faculty development may not be effective.

Medical Student

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Does Spaced-Education Encourage Clinical Case Completion in Residency? Work in Progress

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Sonia Hadj-Mimoune; Samantha Horvey, MD, CCFP; Janusz Kaczorowski, PhD;
Steven Macaluso, MD, FRCP(C); Stephen Mintsioulis, MD, CCFP;
Stuart Murdoch, MD, CCFP (CAC), FCFP; Brian Ng, MD, CCFP; Pierre Pluye, MD, PhD;
Sohil Rangwala, MD, CCFP; Teresa Rudkin, MD, CFP; Mathieu Rousseau, MD, PhD;
Alain Papineau, MD, CCFP,FCFP; Inge Schabort, MBCHB, CCFP, FCFP; Karen Schultz, MD, CCFP, FCFP;
Pamela Snow, MD, CCFP, FCFP; Nicole So; Eric Wong, MD, CCFP, FCFP; Roland Grad, MD, CCFP, FCFP

Context: Spaced education on a mobile app encourages self-learning in focused specialties. We found no studies of spaced education in the Family Medicine residency. We operationalized spaced education as a weekly alert to a new clinical case and reflection on answers to test questions. **Objective:** In Family Medicine residency, does spaced education through a mobile app encourage clinical case completion? **Design**: Multi-site cluster randomized controlled trial. **Setting:** 12 Canadian universities. **Participants:** All first-year residents beginning in July 2017 were eligible. Consenting residents were offered the Family Medicine Study Guide (the app), beginning in December 2017. **Intervention sites:** Through the app, we offered participants a weekly alert to a clinical case. Weekly alerts began January 10 2018. After answering test questions, we defined case completion as a yes/no response to this question: Were you satisfied with your answers (for this case)? **Control sites:** Residents were offered the same app, but with no alerts. We defined cases as being complete when residents answered all test questions. **Main outcome measures:** Number of participants who logged into the app. Number of clinical cases completed per participant and per group, by study month. **Results/findings:** (months 1-3): We consented 335 residents at intervention sites and 302 residents at control sites. More residents in the intervention group signed in to the app to enable tracking of case completion (83% versus 74%). More residents in the intervention group completed at least one clinical case in month one (28% versus 19%). This difference diminished in month two (18% versus 14%) but was sustained in month three (16% versus 12%). We found no difference in the average number of cases completed between groups (11.6±22.8 versus 12.9±18.5). **Conclusion:** Spaced education through a mobile app has a modest effect on clinical case completion in the first year of residency.

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548 Breastfeeding During Family Medicine Residency

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Objective: Canadian residents' breastfeeding experiences have only been reported in studies that broadly explored pregnancy and parenthood. We sought to fully explore Canadian family medicine resident mothers' breastfeeding experiences, and identify strategies to support workplace breastfeeding for future trainees. **Design:** A descriptive, cross-sectional online survey conducted February - March 2017. Data was downloaded from Qualtrics software and exported into IBM SPSS Statistics v24.0 for descriptive statistical analysis. Comments were subjected to thematic content analysis. **Setting:** Family Medicine Postgraduate Program, University of Toronto, ON, Canada. **Participants:** Family Medicine residents who gave birth from 2010-2016. **Main outcome measures:** Exclusive and overall breastfeeding duration, barriers and facilitators to workplace breastfeeding, and strategies to improve the breastfeeding experience for future resident mothers. **Results:** Fifty-six of 179 eligible residents completed the survey (31% response rate). More than 75% of residents were on maternity leave for 7 – 12 months. All initiated breastfeeding, and 54% were breastfeeding exclusively at 6 months. The median breastfeeding duration was 10-12 months. Almost two-thirds of residents were breastfeeding upon return to work, and all experienced barriers to workplace breastfeeding including: lack of time, private space, or refrigeration for expressed milk. Lack of a workplace breastfeeding policy, and inadequate support from supervisors or program directors were additional barriers. Other reasons for early weaning included insufficient milk supply and babies' self-weaning. Peer mentorship and breastfeeding education were identified as additional strategies to support future residents' breastfeeding goals. **Conclusion:** Breastfeeding during residency can be difficult for residents who are juggling motherhood with their work priorities. Eliminating long-standing barriers to workplace breastfeeding, implementing flexible work-schedules, and providing peer and educational supports were identified as strategies to inform program policies that support future trainees' breastfeeding goals.

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549 Enseignement et santé autochtone : Aller dans la même direction, pour différentes raisons

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Objectif : Déterminer, à partir des points de vue d'experts culturels et cliniques, les thèmes à prioriser dans l'enseignement de la santé autochtone. **Type d'étude :** Étude reposant sur un devis séquentiel exploratoire s'inscrivant dans une évaluation d'un programme d'enseignement développé par le Département de médecine familiale et de médecine d'urgence de l'Université Laval. **Lieu :** Joliette (Québec), Manawan et Wendake. **Paramètres de l'étude :** Thèmes à prioriser dans l'enseignement de la santé autochtone en médecine familiale. **Participants :** Trois groupes d'experts culturels (n total=14) et deux groupes d'experts cliniques (n total=13). **Méthode :** Démarche séquentielle en quatre temps : 1) Conception d'une liste préliminaire de thèmes à partir d'une revue de littérature et des cadres de compétences reconnus ; 2) Révision de la liste de thèmes et priorisation à l'aide d'une échelle de notation ordinale au moyen d'un questionnaire en ligne diffusé auprès des participants ; 3) Présentation et discussion des résultats issus des questionnaires électroniques à travers la tenue de cinq groupes de discussion (trois groupes d'experts culturels, deux groupes d'experts cliniques). Les délibérations ont été enregistrées et retranscrites ; 4) Analyse thématique des transcriptions. **Principaux constats :** Il y a consensus sur l'importance de mettre l'accent, dans l'enseignement, sur le contexte spécifique dans lequel les patients autochtones et leur famille évoluent, leur conception de la santé et la façon dont ces déterminants influencent la relation soignant-patient. Il ressort cependant une discordance entre les experts cliniques et culturels sur les motifs gouvernant ces choix, les experts culturels étant guidés par un discours fondé sur la réconciliation et les experts cliniques plutôt portés vers une approche pragmatique de la relation thérapeutique. **Conclusion :** Nous proposons un modèle intégrant à la fois les perspectives des apprenants et des personnes autochtones. Ce modèle peut guider la conception de curriculums d'enseignement à l'échelle canadienne.

Medical Student

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Enrollment in a Multi-site RCT of a Mobile App: Work in progress

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Context: Spaced education may encourage study behaviour in trainees. We found no studies of spaced education in the Family Medicine residency. In this study, we operationalized spaced education as a weekly alert to a new clinical case and reflection on answers to test questions. **Question:** In Canada, what is the level of enrollment and the demographic characteristics of Family Medicine residents in a trial of spaced education? **Design:** Cluster randomized controlled trial. **Setting:** 12 universities. **Participants:** Incoming PGY1 residents, July 2017. Participating residents were offered the Family Medicine Study Guide (the app), in December 2017. **Intervention:** Through the app, we offered participants a weekly alert to a clinical case beginning January 10 2018. We defined case completion as a yes/no response to the following question: Were you satisfied with your answers (for this case)? **Control:** Residents were offered the same app, with no alerts. We defined clinical cases as complete when residents answered all test questions. **Measures:** Consent and participation by eligible residents. Proportion of residents who entered the study by completing a one-time sign-in. Number of these participants who completed at least one clinical case. **Results:** At intervention sites, 335 of 654 (51%) eligible residents provided consent. At control sites, 302 of 586 (52%) residents consented. There was no difference between groups in age, gender and iPhone ownership. 83% of intervention group residents and 74% of control group residents signed in to the app, with no difference in time required to sign in (average 15 days). Case completion was analyzed for the first 83 days. More intervention group participants completed at least one clinical case (47% vs 32%). **Conclusion:** 50% of Canadian residents in Family Medicine gave their consent to join a trial of spaced education through an app. Residents will engage with the app during their first year.

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Realignment of an Established Faculty Development Program for New Teachers: A systematic approach

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Background: Family Medicine teachers need robust faculty development (FD) that aligns with learner, current institutional, and accrediting requirements. In 2005 at University of Toronto a 3 day annual BASICs program was implemented to support new faculty to function optimally in their roles as teachers. Over the years sessions were revised, but there was growing evidence of misalignment and faculty disengagement. **Learning objectives:** (1) To evaluate the existing BASICs faculty development program. (2) To examine alignment with our current diverse faculty needs, and organizational, education, and practice requirements. (3) To redesign a FD program to address identified gaps and stakeholder needs. **Description/ approach used:** The FD committee used existing quantitative and qualitative evaluation data, information from individual participants, focus groups and a systematic 9-step instructional design process1 to redesign the BASICs program. Despite a 95% satisfaction rate, participants wanted shorter didactic sessions and more options for workplace FD. An analysis of learner characteristics, task analysis around teaching level expectations and review of content and sequencing revealed a much needed realignment, especially around Competency by Design, Quality Improvement, Wellness and Resilience, relevance for interprofessional audiences, and building a sense of belonging and an academic identity. Three theoretical models were identified to guide the teaching approach: (1) adaptive expertise; (2) self–determination theory; and (3) and a learning- centered approach. The redesigned program will incorporate the following approaches: A blended learning design of 3 core face-to-face sessions offered across 6-9 months, with developmentally sequenced modular streams of teaching and assessment. 2 pre-designed workplace FD components facilitated by local FD leads for peer coaching. 3 Development of a local Community of Practice.

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552 Slow-motion Medicine in the 21st Century: Rekindling the art of medicine

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Objective: The aim of this study was to explore learners' experience of learning within a structured Long-term care (LTC) environment with direct clinical supervision. It also explores the impact of this training on self perception of competence to manage older adults across other care settings. **Design:** In-depth interviews were used to explore residents' perception of learning in the LTC environment. An iterative process of data collection and analysis consistent with grounded theory was employed to understand the reported experiences of residents. **Setting:** The study occurred in LTC centres in the Calgary area. **Participants:** Purposive sampling amongst 1st year family medicine residents participating in an optional one-year longitudinal rotation in the LTC learning environment. **Results:** The study identified 26 themes in five categories that influenced learning in the LTC environment. Categories included; resident supervision, health system organization, patient context, communication, and the team. Residents reported feeling overwhelmed with the level of medical complexity and chronic multimorbidity in the LTC environment. Clinical practice in the LTC environment was characterized as "Slow-motion medicine", that facilitated competence and confidence in managing these patients. Despite acquiring competencies that could be used across care settings, residents identified the practice environment in other settings as a barrier to transfer of learning. **Conclusions:** The key theoretical construct developed through this study is the notion of "Slow-motion medicine". This construct underpinned the themes that influenced learning in the LTC environment and enabled the development of competencies in the care of older adults with complex multimorbidity. While these competencies can be used across care settings, the practice environment in other settings may influence how these competencies are transferred. Further research is needed on the impact on clinical practice following the LTC rotation.

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553 Understanding the Feasibility and Impact of Balint Groups for Family Medicine Residents

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Background: Balint groups are facilitated peer-based small group discussions around emotionally challenging aspects of patient care. Balint groups have been shown to promote professionalism, strengthen the physician-patient relationship, improve self-efficacy, and reduce burnout in health care professionals. **Objective:** To implement Balint groups into the family medicine residency at NYGH, assess its feasibility, and explore the resident and facilitator experience. **Intervention:** Three groups of 6-8 residents with one faculty facilitator, met monthly for 1.5 hours over a six-month period. At each session, a pre-set theme was explored in areas residents identified as challenging during an initial needs assessment. **Design:** A mixed-methods program evaluation was designed whereby participants completed pre- and post-intervention surveys and focus groups at the mid- and end-point of the study. One-on-one interviews were conducted with facilitators. Qualitative data was transcribed anonymously and coded thematically using grounded theory. Quantitative data was subject to comparative statistical analysis. **Findings:** 10 residents participated in focus groups and 25 residents completed surveys. Participants described Balint groups as a safe space to share feelings and develop mechanisms for coping with challenges during residency. Balint groups enhanced peer connection through normalization and validation. Group reflection helped residents manage their emotions by hearing feedback from peers with similar experiences. Facilitators were valued as they provided guidance and insight. Overall, residents saw benefit in Balint groups as a mandatory part of the curriculum and felt it demonstrated faculty support for resident wellbeing. Quantitative analysis showed Balint groups improved residents' comfort in managing difficult patients but did not show any other statistically significant change. Suggestions for enhancement include shortening the sessions and providing structured suggestions for challenges identified in the discussion. **Conclusion:** Preliminary findings suggest that implementing a Balint group curriculum is feasible and acceptable to residents. Further research is needed to understand potential impact on resident wellness.

Medical Student

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554 Oncology Education for Family Medicine Residents and Family Physicians: A needs assessment survey

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Objective: Cancer care demands in family medicine (FM) continue to grow. This study aimed to determine the current state of oncology education in FM and examine opinions regarding optimal FM oncology education. **Design:** Survey. **Setting/ participants:** The survey was pilot-tested and sent to FM residents and FM program directors (PDs) across Canada and family physician (FP) Cancer Care Committee members of the College of Family Physicians of Canada. **Main outcome measures:** The survey was designed to evaluate ideal and current oncology teaching, topics and objectives in FM post graduate medical education (PGME) and continuing medical education (CME). **Results:** From May 1 - August 31, 2017, 131 FM residents and 15 FM PDs affiliated with 16 of 17 Canadian medical schools, and 42 FPs completed the survey. Only 8% of residents, and 20% of PDs believe the oncology education provided is adequate. 13% of residents reported having oncology learning objectives, but 73% felt they would be useful. Residents reported the best way to lean oncology is through clinical experience alone. PDs stated that case-based and didactic teaching are also important. Residents and PDs agreed that the most important topics are cancer prevention, cancer screening, breaking bad news and palliative care. These topics were reported to be taught to 89-100% of FM residents. Yet, other important topics including cancer patient referrals, managing cancer complications and post-treatment surveillance were only taught to 52%, 40% and 36% of residents, respectively. According to 40% of FPs, the amount of oncology CME completed was inadequate; 21% reported that CME inadequately updates their knowledge in cancer patient management. **Conclusion:** Current FM PGME oncology education is seen to be sub-optimal by both FM residents and PDs. Sub-optimal oncology teaching is also likely for FM CME. FM oncology education can be improved using suggestions generated from this survey.

Resident

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555 Residents' Knowledge of and Comfort with In-Flight Emergencies

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Purpose: To assess the knowledge and level of comfort of University of Toronto Family Medicine residents with respect to in-flight medical emergencies. **Methodology:** An online survey of PGY1 and PGY2 Family Medicine residents at the University of Toronto was conducted from November 2017 to February 2018. The questionnaire consisted of a total of 15 questions: eight questions assessing level of comfort/experience with in-flight medical emergencies using Likert scales and their opinion on the utility of formalized teaching regarding the topic; seven questions testing their knowledge of in-flight medicine. Ethics approval was obtained through the University of Toronto Ethics board. **Results:** The survey invitation was extended to approximately 228 residents across the program; 65 residents responded, (29% response rate). 41 respondents were PGY1s and 24 were PGY2s. Of all respondents, 15% had been called upon to help in an in-flight medical issue. 86% of all respondents had no experience with any education on the subject. The majority of residents (48%) reported being minimally confident in managing an in-flight medical emergency, with only 11% being somewhat confident or confident. 80% of residents surveyed thought that further training in this field would be somewhat or absolutely helpful in their training. **Conclusions:** Residents have some knowledge of in-flight medicine, but still lack confidence in the area of in-flight medical emergencies. Implementing simulation sessions or other teaching tools into the Family Medicine residency curriculum would increase the residents' overall level of confidence about in-flight medical emergencies, while also building that knowledge base.

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556 Fostering Interspeciality Learning in Cancer Survivorship Care: Learning suite results

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Objective: To assess if a cancer survivorship learning suite (LS) impacts attitudes of family medicine, radiation oncology and medical oncology trainees towards interspecialty collaboration in Montreal, Canada. **Design, setting, and intervention:** A survivorship (LS) developed by a Manitoba-based team under the sponsorship of a Canadian Partnership Against Cancer grant held by Cancer Care Ontario was delivered to 49 McGill University family medicine, radiation oncology, and medical oncology trainees. The LS comprised in-person delivery of a 3-hour case-based workshop, presented by a radiation oncologist and a family physician, both experienced in the field of survivorship. An adapted version of the Readiness for Interprofessional Learning Scale (RIPLS) was completed by participants before and after workshop delivery.

Statistical analyses included non-parametric (Wilcoxon Signed rank tests) comparisons. **Participants:** Inclusion criteria consisted of any family medicine, radiation oncology, and medical oncology trainee attending the workshop. Participation was voluntary. **Outcome measures:** Changes in attitudes of family medicine, radiation oncology, and medical oncology trainees following the workshop, as measured by the RIPLS. **Results:** Response rate was 63.2%, and included family medicine (65%), radiation oncology (26%), and medical oncology (10%) trainees, respectively. Following the workshop, participants were significantly more likely to agree that interspecialty learning in residency "would help physicians become better team workers", ($Z = 2.7$, $p < 0.008$, $n = 31$), and "improves relationships between physicians of different specialties in independent practice afterwards", ($Z = 2.6$, $p < 0.009$, $n = 31$). Participants were also significantly more likely to agree that "shared interspecialty learning increase ability to understand clinical problems", ($Z = 2.8$, $p < 0.005$, $n = 31$). **Conclusion:** While much literature has focused on interprofessional collaboration at different levels of education and practice, few studies have assessed interspecialty collaboration of physicians of different specialties. This survivorship LS demonstrated favorable changes in attitudes towards interspecialty learning.

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557 Participation des patients à la gouvernance des GMF-U : Travail en cours

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Contexte : Cette recherche exploratoire porte sur l'engagement de patients au sein du comité exécutif du Groupe de médecine de famille universitaire (GMF-U) de Verdun. **Objectifs :** 1) déterminer les facteurs favorables à l'engagement de patients-ressources sur le comité exécutif d'un GMF-U ; 2) évaluer leur rôle et leur influence sur la prise de décision au sein du comité ; 3) améliorer le processus de co-construction au niveau de la gouvernance d'un GMF-U afin d'exporter ce modèle. **Type d'étude :** Il s'agit d'une étude de cas unique longitudinale à trois niveaux d'analyse imbriqués. **Participants :** La population à l'étude regroupe 1) les personnes en charge du partenariat avec les patients au niveau du CIUSSS (n=2) ; 2) le comité exécutif du GMF-U (n=14) ; 3) les professionnels du GMF-U (n=56). **Instruments :** Le cas mobilise des données qualitatives et quantitatives provenant d'entretiens individuels et en petit groupe, d'un groupe de discussion, de documents et de questionnaires. **Paramètres à l'étude :** Les verbatims sont analysés selon une dominante thématique par une technique de codification, les réponses aux questionnaires, selon le pourcentage d'accord, puis une grille guide l'analyse des documents. **Résultats :** Les principaux utilisateurs des résultats seront les membres du comité exécutif à l'étude qui pourront utiliser ceux-ci afin d'améliorer leur démarche, mais aussi les autres GMF-U et GMF intéressés par une telle initiative, ainsi que les décideurs. **Discussion :** L'engagement des patients se situe ici au niveau de la gouvernance, mais les répercussions sont attendues tant au niveau clinique, qu'en enseignement et en recherche en santé, soit les trois missions du GMF-U. **Conclusion :** Les leçons apprises de cette initiative pourront favoriser le processus de co-construction avec des patients au sein de nos organisations de santé, afin que les décisions prises et les pratiques mises en place reflètent réellement les besoins des patients desservis.

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558 Chronic Hepatitis C Treatment Feasibility in Primary Care Settings

Vahan Hakobyan*, MD, MHSc; Amina Jabar, MBBS; Jo-Raul Farley; John Farley, MBBS, FRCPC

Objective: Over 200,000 Canadians are estimated to live with chronic hepatitis C infection (HCV). Many affected Canadians cannot be treated because of limited or timely access to specialists. Treating with newer Direct Acting Antivirals (DAAs) for eight to twelve weeks achieve > 95% cure rates with minimal adverse effects. HCV treatment can now be successfully delivered at a primary care level with less intervention from specialists, improving accessibility and adherence to treatment. The objective of this study is to validate the possible implementations of using DAAs in primary care settings by demonstrating their effectiveness and feasibility in community-based clinics. **Design:** Retrospective chart review of DAA-treated HCV patients between March 2012 and December 2015. **Setting:** Three community-based clinics in BC with interests in managing hepatitis. **Participants:** 362 HCV patients (246 males(68%); mean age 58.5 years). **Intervention:** Cases were evaluated for treatment eligibility based on clinic protocols determined by the infectious diseases specialist incorporating Provincial guidelines; elastography established liver fibrosis; treatment was initiated by the specialist. Monitoring included a care team (family physicians, nurses, graduate students), supervised by the specialist. **Results:** Nine (2.5%) were HIV-co-infected. Most received 12 weeks treatment and saw the specialist 2-3 times. There were 45 (12.4%) reported minor adverse effects. Of 323 available post-treatment HCV RNA determination available, 316(98%) achieved Sustained Virologic Response (cure). Average wait-time (referral to treatment-initiation) was less than twelve weeks. **Conclusion:** These results compare favourably with registration trials and specialty centres. We have demonstrated in our real-life community-based clinics, that treating most HCV cases is timely, feasible and effective. We believe that in primary care settings, with close collaboration with specialists, similar (or better) results can be replicated, and we recommend further exploration of this model as a cost effective strategy to help address the HCV epidemic and elimination in Canada.

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559 Preparing Children with Medical Complexity for Adult Healthcare. Quality improvement: Work in progress

Taylor McKay*, MSc; Christopher Chung; Julia Orkin, MD, MSc, FRCPC; Sherri Adams, MSN, NP, CPNP-PC/AC

Context: Medical advances have allowed a growing cohort of children with medical complexity (CMC) to reach adulthood. These diagnostically heterogenous children require intensive medical and community services and healthcare providers face many challenges transitioning them to adult healthcare. **Objective:** To improve transition readiness in care providers and families of CMC using standardized documentation and a transition checklist. **Design:** This study involved a cross-sectional chart review and an ongoing quality improvement component. **Setting:** The Hospital for Sick Children's Complex Care Program (400+ patients). **Participants:** All CMC in the Complex Care Program age 14-17, inclusive (N=51). **Intervention:** A standardized, age-stratified checklist, standardized charting instructions, and transition rounds were implemented for one year. **Main outcome measures:** Documentation of transition-related parameters in charts: 1) discussion of transition, 2) family physician status, 3) adult subspecialist status, 4) funding/respite application status, 5) transition readiness. **Results:** Patients of the growing CMC cohort had an average of 9 diagnoses, 6 subspecialists, and 8 medications. Only 50% had discussed transition and 76% did not have a transition lead. Over 40% did not have a family physician. At age 17: fewer than 50% had seen a family physician, fewer than 50% had been referred to adult subspecialists, and 50% had not applied for crucial disability/respite funding, which can take up to 2 years to receive. Results of the intervention are pending. **Conclusion:** CMC are not meeting transition-related milestones before entering the adult healthcare system. Family physicians who become primary care coordinators will need to manage many social and medical aspects of care. This study has identified and continues to assess areas for improvement in transition planning and execution. A standardized approach could facilitate discussions between family physicians and pediatric providers as well as empower caregivers to be better advocates for CMC in the adult healthcare system.

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560 Feasibility of Targeted Screening for Poverty in a Large Primary Care Team

Kimberly Wintemute, MD, CCFP, FCFP; Michelle Greiver*, MD, CCFP, FCFP; Joyce Lo, RN MN; Suja Arackal, BEng; Aashka Bhatt

Context: In Ontario, poverty affects up to 20% of families and is considered to be a significant influence on the health of individuals. An evidence-based tool for poverty screening and intervention in primary care is available and effective, but physicians may not be able to screen all their patients due to time constraints. **Objective:** To test the feasibility of targeted screening and intervention for poverty across a large, inter-professional primary care team. **Design:** Process evaluation, survey. **Participants:** 80 North York Family Health Team (NYFHT) Physicians and their care team in Toronto, Ontario, Canada looking after over 80,000 patients. **Intervention:** Following a successful pilot, all 80 family physicians in the NYFHT were invited to participate in the study. A search for income index and material deprivation, using postal codes and the Canada Postal Code Conversion File was done. An alert was placed in the EMR of those patients living in the lowest income and most materially deprived areas, for those physicians who agreed to participate. The alert prompted a member of the care team to screen for poverty, using two questions. Patients who screened positive were referred to the FHT Case Worker for assistance in optimizing income. This will be evaluated at six and 18 months. We will present the 6-month evaluation. **Main and secondary outcome measures:** number of patients identified, number of charts flagged with alert, number of patients screened, number of patients who saw the case worker, patient survey for acceptability of screening questions and satisfaction with case worker referral. **Results:** We expect reasonable feasibility and uptake of targeted screening. **Conclusion:** if this approach is feasible, it may provide a clinical pathway towards improved screening for poverty in routine Canadian primary care.

POSTER PRESENTATIONS / PRÉSENTATIONS D'AFFICHES

Thursday, November 15 / Jeudi 15 novembre

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601 Deprescribing Bisphosphonates in Primary Care

Ruben Hummelen*, MD, PhD, CCFP; Charnelle Carlos, MD, CCFP; Olivier Saleh, MD, CCFP

Objective: To identify and deprescribe bisphosphonates among patients who are at low or moderate risk for fragility fractures. **Design:** Chart review and individual risk assessments. **Setting:** This study took place in the practices of 3 academic family physicians at McMaster Family Practice in Hamilton totalling 942 patients of age ≥50 years. **Participants:** Chart review was done on 47 patients who were identified having been given a prescription for a bisphosphonate between Nov 2014 and Nov 2015. After a thorough chart review of these 47 patients, 21 were excluded as they were followed by a rheumatologist (n=5), had stopped taking their bisphosphonate (n=6), were high risk or had a prior fragility fracture (n=5) or had for other reasons (n = 5). **Intervention:** Assessment of patients' risk factors with a FRAX score calculation and counselling on their bisphosphonate use. **Results:** A total of 26 participants were assessed of whom, 9 were low risk, 14 moderate risk, and 3 high risk according to FRAX. Duration of use was significantly longer among the low risk group (median 10 years) than the intermediate and high risk group (median 7.5 years, p = 0.05). Among those in the low risk group, 7 (78%) chose to discontinue the use of their bisphosphonate after counselling. Among those in the moderate risk group, 10 (71%) chose to discontinue the use of their bisphosphonate, while one patient in the high-risk group discontinued the use of their bisphosphonate. **Conclusion:** This study shows that a majority of patients in primary care may be eligible for a drug holiday or for discontinuing their bisphosphonate based on an absolute risk estimation. Periodic reassessment of bisphosphonate use using the FRAX can lead to better prescribing of these medications.

602

A Retrospective Analysis of Feedback From Group Facilitation of Advance Care Planning Discussions

Daphna Grossman*, MD, CCFP (PC), FCFP; Valerie Caraiscos, PhD, MD, CCFP (PC);
Karen Lock, RN (EC), MN, CON (C), CHPCN (C); John Balacom, RN, BScN, BHA;
Wendy Cheung, BScN, MAEd, CHE; Susan Woollard, RN, MAEd, ENC(c), CHE

Objective: To determine whether group facilitation for teaching and discussing advance care planning (ACP) enhances participants understanding of ACP and allows them to feel comfortable and supported when discussing these sensitive issues. **Methods:** Patients who were registered in North York General Hospital's (NYGH) pulmonary rehabilitation program from June 2016 until August 2017, were provided with two one hour sessions related to ACP. The first session was dedicated to educating patients on ACP, explaining the hierarchy of the substitute decision maker and the role of the power of attorney for personal care. The second session, provided one week later, was devoted to discussions of values, wishes, fears and trade-offs for future medical and end of life care. These discussions, led by the supportive care nurse practitioner and a physician who are members of the NYGH Freeman Palliative Care Team were provided in a group facilitated format. Anonymous feedback forms, including both qualitative and quantitative feedback were completed by the participants and analyzed. **Participants:** 30 participants registered in the pulmonary rehabilitation attended the sessions of which 21 identified as female and 9 identified as male. The average age of the participants was 76 years. **Findings:** Participants felt the content was relevant to their needs and were comfortable asking questions with all feedback rated as good or very good. Participants shared that they appreciated the opportunity to share their thoughts in an open and interactive format. **Conclusion:** Discussing issues relevant to ACP including providing information about ACP, sharing fears, wishes and tradeoffs were well received in a group support environment. This format provides an opportunity for sharing ideas, thoughts, and approaches. Future studies should assess the impact of ACP group discussion on the individual, such as identifying a POA and having discussions regarding wishes and values with the SDM/POA.

603

The Development of a Patient-Based Feedback Tool to Assess the CanMEDS-FM Communicator Role

Diana Toubassi*, MD, CCFP; Amita Singwi, MD, CCFP; Ian Waters, MSW

Introduction: It has proven challenging for some family medicine programs to provide meaningful feedback relevant to the CanMEDS Communicator Role, and feedback about residents' Communicator competencies has often neglected to include patients' perspectives. This 5-year study sought to develop a patient-based tool to provide residents with immediate feedback centred on their Communicator Role competencies. **Method:** The patient-centred survey was based on a tool jointly developed by the College of Family Physicians of Canada, Royal College and the Medical Council of Canada. A Continuous Quality Improvement ("Plan, Do, Study, Act") model was utilized each year to modify the process and tool based on consultation with faculty physicians and residents. In its first iteration, 10 PGY-1s distributed the survey to their patients. At the end of each clinic, the residents immediately reviewed the patient surveys with their preceptors. In subsequent years, the survey was revised from a likert scale format to a yes/no survey with the option of written commentary. In the first and fourth years of the study, the residents distributed the surveys; in the remaining years, patient feedback remained anonymous to the residents as they were blinded to the process. **Conclusion:** As part of our assessment of Communicator Role competencies, a patient-based feedback tool was developed, refined and successfully integrated into the family medicine residency program at our site. Feedback has been positive. Future plans to include digital distribution of patient surveys will dramatically increase numbers and average the returned data over more prolonged periods.

604 Facing Fear: Improving the identification of paediatric anxiety disorders in primary care

Elizabeth Lovell*, MD; Seamus P. Norton, MD, FRCPC, MPH

Rationale: Children and adolescents experiencing anxious symptomatology typically make first contact with the health care system by way of their primary care physician (PCP); however, screening for paediatric anxiety disorders is not typically performed as part of routine primary care. Presently, there are no clear guidelines and/or recommendations available to assist PCPs in the identification of paediatric anxiety disorders. **Purpose:** To review current, evidence-based literature examining the screening and identification of anxiety disorders among school-aged children and adolescents in primary care. **Methods:** A thorough review of major health databases was conducted using a fixed pool of MeSH terms. All abstracts were screened for relevancy by a two-member academic panel using a predetermined set of inclusion and exclusion criteria. Due to the heterogeneity of the available studies, data could not be pooled using meta-analytic methods; instead, the findings of the included studies were synthesized using a descriptive approach. **Results:** The literature search identified 824 unique abstracts. Initially, 29 abstracts were assessed to meet study cutoffs; of these abstracts, 6 non-experimental studies with a cumulative population of 1114 paediatric outpatients were included in the final review. All studies supported the use of a multimodal, multi-informant approach when screening for paediatric anxiety disorders; however, results from three studies suggested that parental reports may provide a more accurate characterization of anxious symptomatology among certain patient sub-groups, particularly younger children. There was a small amount of level three evidence suggesting that patient age, gender, stage of ego development, medical co-morbidities, and level of familial conflict may affect the expression of different anxious symptoms and overall clinical presentation. **Conclusion:** There is a paucity of rigorous evidence-based data to guide PCPs in the screening of paediatric anxiety disorders. This limitation has implications for timely referral for diagnostic assessment and subsequent management.

605 People of Dementia

Jeff Jamieson, MD, CCFP; Bonnie Dobbs, PhD; Lesley Charles*, MBChB, CCFP (COE);
Karenn Chan, MD, MSc, CCFP (COE); Peter George Tian, MD, MPH

Objective: To engage the public in a greater appreciation of those affected by dementia, raising awareness and reducing stigma, through a website. **Design:** This was a mixed methods study involving the creation of a website, People of Dementia (www.peopleofdementia.com), featuring human-interest stories (interviews) of persons with dementia (PWD) and their caregivers and an online survey on the impact of the People of Dementia stories. **Setting:** The project was based at the University of Alberta. **Participants:** The persons with dementia and their caregivers were from Edmonton and surrounding areas. The website visitors were from the general public from May to October 2017. **Main Outcome Measures:** We collected website usage statistics and proportions of answers to survey questions. **Results:** The website was released in May 2017. It featured 12 individuals with dementia, highlighting who they were before the disease and how things have changed. The common thread was the enduring “person” behind the exterior that was obscured by dementia. Caregivers highlighted the challenges of caring for a family member with dementia. By allowing the audience to form a connection with who the individual was prior to the disease, and understanding the changes that have come as a result of dementia to both the individual and their support network, readers had a greater appreciation of those affected by dementia. Regarding the survey, out of 57 respondents, 39 (68%) indicated having a family member with dementia or mild cognitive impairment. 34 (60%) indicated that, after visiting the website, they had a better understanding of the changes that occur in dementia. Regarding the website usage, from May to October 2017, there were 2463 new users, with an average session duration of 2:05 minutes. **Conclusion:** The People of Dementia website was a useful tool to engage the public on understanding the dementia journey.

606 Transitions in Care from Acute Care to Home

Lisa Jensen, RD, MBA; Lesley Charles, MBChB, CCFP (COE)*; Claire Johnson, RN, BScN

Objective: To facilitate smoother discharge of high-risk patients from acute care to home. **Design:** Quality improvement project. **Setting:** Grey Nuns Community Hospital (GNCH), Edmonton. **Participants:** Patients admitted to medicine units. **Intervention:** Phase 1 utilized expert consensus from the Covenant Transition Steering and Working Groups to design a risk assessment tool, a telephone call script, and a comprehensive evaluation framework. This work was informed by a literature review and by the experience of Providence Health, GNCH Geriatrics pilot, and the Edmonton Southside Primary Care Network transitions work. After a pilot validation study, we decided to use the original LACE tool for risk assessment, setting the cut-off score for high-risk patients at 13 to obtain roughly a third of patients as high risk. Phase 2 included risk assessment and follow-up telephone calls 48 hours after discharge. Through these phone calls, the Research Coordinator (with background in nursing and transition coordination) provided support in medication management, equipment access, homecare referrals, and physician appointments. A copy of the telephone call documentation was faxed to the primary care physicians and/or to homecare. **Results:** 27% of patients discharged home (n=1621) were classified as high-risk from LACE scores. 79% of patients/caregivers were contacted within 3 days of discharge of which 99% found the call helpful. 93% of patients had a good understanding of their discharge instructions. 18% were new referrals to homecare. 83% had picked up their prescriptions and 51% their equipment. 78% of patients had an appointment booked with their PCP. **Conclusion:** The phase 2 of this study has identified where things are being done well for high risk patients. However, it has also identified gaps in the system with a significant number of high risk patients not having homecare involvement and difficulties picking up equipment. Support across the continuum is required for seamless transition planning.

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607 Becoming a Better Physician Advocate and Ally to Indigenous Canada

Madeleine Cole*, MD, CCFP

Being an ally means not taking over. It means partnering and giving opportunities for others to lead and succeed. It means reflecting on our social capital and our privilege as educated physicians. It means being open to continued learning about the effects of colonization. The Truth and Reconciliation Summary Reports and its specific health recommendations are a good starting place. Indigenous Cultural Competence training courses can help build skills and knowledge. Ultimately, relationship building across cultures both in our professional and personal lives can lead to meaningful positive change and reconciliation. Health Advocacy can take many forms and has many definitions. As a family doctor, it means helping people to improve their health by using our knowledge and power as physicians to create change on behalf patients or communities who have less power. To be an effective and caring health care provider, or policy maker for that matter, keeping in mind three C's can help: Context, Curiosity and Conversation. These factors are indeed necessary for good advocacy as well as for cultural safety. This poster reviews the basic demographics of First Nations, Inuit and Metis communities and the importance of recognizing the diversity of Indigenous Canadians. The author highlights the historical context of health care in Nunavut specifically (TB care, E numbers, the dog slaughter, high arctic relocations and residential schools) as well as contemporary health challenges that Inuit face. Nunavut, which means "our land" in Inuktitut, makes up a fifth of Canada's land mass, but has just under 40,000 residents. About 85% of Nunavummiut are Inuit and Inuktitut remains one of the strongest indigenous languages in Canada. The role that physicians can and must play to improve social determinants is emphasized with examples from the field and by sharing efforts for small scale improvement in Family Medicine advocacy education.

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608 A Vis-à-Vis With VZV: Improving shingles vaccination rates using a QI approach

Isuri Weerakkody*, MD, MSc; Hetal Patel*, MD, MPH; Lindsay Wong, PharmD; Zhanying Shi; Stephen Marisette, MD, CCFP

Context: Herpes Zoster (shingles) is a viral infection caused by reactivation of the Varicella Zoster virus (chicken pox). Lifetime risk of disease is 30%. In Canada, there are 130,000 new cases of shingles each year; of these, 17,000 develop post-herpetic neuralgia and 20 patients die each year. Preliminary analysis indicated that the rate of shingles vaccination among resident patients aged 65-70 years at Health for All Family Health Team in Markham, Ontario is significantly lower (42%) than rates among faculty patients (53%). **Objective/Design:** The present quality improvement study was undertaken to increase rates of shingles vaccination by 25% between December 2017 to April 2018. Target population consisted of resident patients aged 65-70 years with no prior immune-compromising conditions. While shingles vaccination is recommended for patients aged 50+, we focused on the 65-70 years' age group due to recent OHIP coverage for Zostavax for this group. **Methods:** An initial literature review was undertaken to identify common barriers to shingles vaccination and a resident survey was then undertaken to identify perceived barriers towards vaccination at Health for All. Using barriers identified, further PDSA cycles included a new highlighted reminder on the EMR for eligible patients, and creation of a provider FAQ and patient-friendly information handout. **Results:** A total of 111 resident patients were included in this study. The resident survey identified barriers including cost of vaccine, vaccine hesitancy and lack of time during appointments which were consistent with the literature. With a total of 6 PDSA cycles from December 2017 to April 2018, the shingles vaccination rate among resident patients at Health for All increased by 27%. **Conclusion:** The overall rate of shingles vaccination can be effectively improved at a resident based family practice using a quality improvement approach. This approach may be applied to improve rates of other vaccinations for seniors.

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609 Are Obese Women Less Likely to Undergo Cervical Cancer Screening?

Huma Numair*, MD, CCFP; Hammaan Khan; Shahzana Shahzad, MBBS; Sabrina Suleman, MD;

Shirin Shahzad, MBBS

Context: Eligible women should undergo cervical cancer screening(CCS) at three year interval, as per Ontario Cervical Screening Guidelines Summary(Revised October 2016 and SOGC Position Statement 2013). Cervical cancer(CC) is the second most common cancer in Canadian women between age 20-44, with a 25% mortality rate. Lapsed or absent CCS is associated with 50% of all CC(SOGC). **Objective:** To determine if obese women are less likely to undergo CCS. **Design:** A Cross-sectional study. **Participants:** We identified 996 eligible females who visited HFHClinic, Burlington, Ontario between 2015-2018. They were divided according to age, calculated BMI, Pap report in EMR and association of all parameters measured. **Intervention:** Analysis of EMR data from HFHClinic. **Outcome Measure:** Association of Obesity and age with CCS. **Result:** Of the total eligible 996 females, documented in a 36 month period, 633 had a calculated BMI. Of the 633 females, 24% were Obese(150/633) and 76% were non-obese(483/633). No documented pap found in 44% of Obese(66/150) vs 32.5% of non-obese(157/483). Lack of CCS in Obese by age: 21-40 yrs=45%(19/42), 41-50yrs=28%(10/36), 51-69yrs=51%(37/72) compared to lack of CCS in non-obese: 21-40 yrs=38%(81/211), 41-50yrs=25%(25/100), 51-69 yrs=30%(51/172). **Conclusions:** More Obese women(44%) missed CCS compared to non-obese(32.5%). 45% of younger Obese(21-40 yrs) missed paps compared to 38% of their non-obese counterparts. Obese women have a higher 5-year risk of cancer. Despite CC having a lower overall incidence, women aged 25-45yrs have a higher rate of CC than of uterine or ovarian cancer. Obesity is associated with decreasing odds of CCS(Canadian Community Health Survey 2003). CCS helps early diagnosis of pre-cancerous conditions before they develop into invasive cancer. Cancer treatment negatively impacts fertility and sexual function in young women(SOGC). We need to improve CCS participation with special focus on vulnerable population like the obese, who are more likely to be missed and more at risk to develop CC.

Resident

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610 Excluding Ectopic Pregnancy in Patients in a Community ED With First Trimester Bleeding

Erica Hoe*, MScPT, MD; Catherine Varner, MD, CCFP (EM); Maria Ivankovic, MD, CCFP (EM)

Introduction: Current guidelines recommend patients with first trimester bleeding without previously documented intrauterine pregnancy undergo urgent transvaginal ultrasound (TVUS) to exclude ectopic pregnancy. In Canadian practice to receive urgent TVUS may be difficult, particularly out of hours. Providers use point of care ultrasound (POCUS) or their best clinical judgment to determine if the patient can be safely discharged home while awaiting outpatient follow-up. The objective of this study was to determine what proportion of first trimester patients presenting to a community emergency department (ED) with vaginal bleeding undergo either TVUS or POCUS to exclude ectopic pregnancy. **Methods:** This was a retrospective chart review of pregnant women gestational age less than 20 weeks presenting to a community hospital ED (103,000 visits/year) with a discharge diagnosis of vaginal bleed, first trimester bleed, threatened abortion, spontaneous abortion, missed abortion, rule out ectopic pregnancy, and ectopic pregnancy from December 2016 - January 2017. Patients were excluded if they were diagnosed with a ruptured ectopic pregnancy during their index ED visit. **Results:** Of the 98 included patients, 4 (4.1%) only had POCUS, 66 (67.4%) only had a radiologist-interpreted TVUS, and 3 (3.1%) had both POCUS and radiologist-interpreted TVUS during their ED index visits. Thus, 73 (74.5%) had either a radiologist-interpreted TVUS or POCUS during their index ED visit. After their index ED visits, 2 (2.0%) patients returned with ruptured ectopic pregnancies, 1 of whom had not undergone initial US investigations. **Conclusions:** Although TVUS is standard of care to exclude ectopic pregnancy in patients presenting with first trimester bleeding, our results show some patients are not receiving this diagnostic modality nor POCUS during their index ED visit. Particularly in a setting without rapid access to an early pregnancy clinic, patients should be counselled about their risk of ectopic pregnancy rupture at the time of ED discharge.

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611 Primary Palliative Care – What are we doing and where should we go?

Warren Lewis*, MD, CCFP; Camille Lemieux, MD, LLB, MPH; Benjamin Kaasa, MD, MScCH, CCFP

Context: Primary care providers provide the bulk of palliative and end of life care to chronically ill patients in Canada. Advanced care planning (ACP), a hallmark of quality palliative care, is often challenging in the outpatient clinic and access to specialty palliative care for assistance in navigating these complex discussions is limited. **Objective:** To identify the current state and barriers in providing ACP discussions in an academic FHT and to explore models of incorporating palliative care support. **Design:** Non-randomized prospective needs assessment including distribution of a questionnaire to family physicians, residents and interprofessional clinicians and in-person semi-structured discussions between palliative care physicians and the FHT. **Setting:** The study took place at the Toronto Western FHT (TWFHT), an academic FHT in downtown Toronto and a teaching site associated with the Department of Family and Community Medicine at the University of Toronto. **Participants:** Questionnaires were collected from 25 family physicians and interprofessional clinicians and 25 family medicine residents who provide direct patient care working at the TWFHT. **Main Outcome Measures:** Current, ideal state and barriers in ACP discussions. Ideal type of integration of palliative care clinicians in a FHT. **Results/Findings:** Family physicians feel they engage in and document ACP "too little" in their outpatient practice. They typically discuss these alone (without interprofessional colleagues) despite the feeling that it should be done collaboratively. Integration of palliative care in the FHT varied including one-time consults, email/telephone advice and longitudinal follow-up. **Conclusion:** FHT members feel they do not engage or document ACP adequately and welcome integration of palliative care clinicians into their practice. The majority of practicing family physicians surveyed preferred one-time consults or email/telephone advice. This may point to the ownership primary care providers have for their patients given the comprehensive care provided. Integrated models to support primary palliative care should be further explored.

Medical Student

612

From Primary Care to Emergency Department: What can be avoided? Work in progress

Emily Yung*, MSc; Roland Grad, MD, MSc, FCFP

Context: Emergency Department (ED) overcrowding is a ubiquitous problem associated with increased wait-times and excess risk of mortality. A gap in knowledge exists regarding the types of patient problems referred to the ED after first evaluation in primary care for chest pain. **Objective:** To evaluate the outcome and appropriateness of referral from a family medicine clinic to the ED, for chest pain. **Design:** Cross-sectional chart review of referrals in 2016-2017. Participants/**Setting:** Patients referred to the ED from an academic, urban, family medicine clinic in Montreal. **Measures:** Amount of time in ED. Outcome of ED visit (discharge, intervention performed, or hospital admission). Appropriateness was determined according to a published algorithm for ED referrals. **Results:** Of the 548 ED referrals, 86 (15%) were referred for cardiovascular disease (CVD). Of these, 53 (61%) were referred for chest pain. Of those who were referred for chest pain, 20 (38%) were considered inappropriate as they could have been managed in primary care. Of those deemed inappropriately referred, the following was found; the duration of chest pain symptoms were documented in 12 (60%) of these referrals. Acute coronary syndrome was suspected in 5 (25%). None of these 20 patients had a documented ECG performed in primary care while 16 (80%) received an ECG in the ED that was negative. On average, these patients spent 4.2 hours in the ED. 15 (75%) were discharged after receiving no intervention. **Preliminary Conclusion:** About one-third of ED referrals for chest pain from primary care could potentially be avoided. We will analyze a larger sample of referrals to 2018 to examine if the use of a clinical prediction tool in primary care improves the decision to refer to the ED for suspected CVD.

613

Integration of Nurse Practitioners with Family Physicians in Vancouver Residential Care Facilities

Marla Gordon*, MD, CCFP; Sharon Galloway, MN

Nurse practitioners have been introduced as Most Responsible Practitioners (MRP) to provide care for the frail elderly at select residential care facilities in Vancouver, BC. The NPs work independently but with much collaboration and guidance from the family physicians who also provide clinical care and medical leadership at the facilities. The NPs and family physicians work alongside each other to provide care to a separate and distinct panel of residents with complex care needs. An evaluation report, using qualitative and quantitative data, was carried out to assess the integration of nurse practitioners in residential care, the factors that facilitated or posed barriers to successful integration, the impact of NPs on quality of care and health outcomes, and the experience of the family physicians with the NPs. Key recommendations and pearls will be shared which aided in the integration NPs in residential care and strengthened the collaboration between family physicians and NPs. The learner will be able to appreciate the family physicians' experience of the NP integration at the care home and identify benefits of the role from the family physicians' perspective. Issues will be explored which require detailed discussion and comprehensive planning with family physicians when incorporating NPs in an innovative delivery care model where both NP's and family physicians are each responsible for distant resident panels.

614

Colon Cancer Screening With FIT Versus Colonoscopy - Why not go with easy?

Richard Ward*, MD, CCFP, FCFP; Dilshaan Banjwani; Steven J. Heitman, MD, FRCP;
Robert J. Hilsden, MD, FRCP

FIT testing has emerged as an effective and acceptable screening procedure for patients with average risk for colorectal cancer (CRC). It is a sensitive, acceptable, and cost effective method of identifying early stage disease in an important and treatable condition. Why would some family physicians continue to refer high volumes of patients for CRC screening with colonoscopy when FIT testing is widely available? We identified and surveyed 'high colonoscopy referring' family physicians and compared them with 'low colonoscopy referring' family physician's to identify unique beliefs that may differentiate the two groups. The results from this work may provide insight into characteristics of FP's who are reluctant to adopt new screening practices.

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615 Playing Together in the Sandbox and Improving Patient Care: Family medicine / specialist integration

Richard Ward*, MD, CCFP, FCFP; Linda Maeford Slocombe, MD; Val Kiss, MSc;
Remo Panaccione, MD, FRCPC; Jana Lait, MA

In 2014, family physicians in Calgary who are part of Primary Care Networks (groups of family doctors and other health professionals) began close collaboration with various specialty groups. Their goal was to improve patient care through innovative solutions. These solutions included a telephone advice line for family doctors to get advice from a specialist about a patient within an hour, and clinical pathways to guide family doctors in care planning as a complement to the telephone advice service. This poster highlights the successes, challenges and outcomes of this collaboration. Learnings could help other primary care organizations exploring system integration activities.

Resident

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616 Ductal Carcinoma In Situ (DCIS) Patient Repatriation Project: From consultant to primary care

Samantha Avadiev*, MD, MSc; Kira Bensimon, MD, MSc; Brian Pinchuk, MD CM, FRCSC;
Kimberly Wintemute, MD, CCFP, FCFP

Context: The current follow-up care for ductal carcinoma in situ (DCIS) patients is provided by surgical oncologists (SOs) in high-cost settings, when it could be delivered as effectively by family physicians (FMDs) in lower-cost settings. High-quality Canadian evidence shows that current practice does not lead to improved outcomes or patient satisfaction, and impedes access to care for active cancer patients. **Objective:** To repatriate the care of 30% of DCIS patients followed by one surgeon at North York General Hospital (NYGH), using a Survivorship Care Plan (SCP), educational letters, and formalized discharge communication to patients and FMDs. **Design:** A targeted EMR search and chart review identified eligible patients. The SCP was created based on consensus, ASCO guidelines, and evidence for breast cancer survivorship care. Transfer-of-care discussions were facilitated by SOs at regular follow-up appointments. Formalized discharge documents were mailed to patients and faxed to FMDs, completing the transfer-of-care. **Setting:** One SO practice affiliated with NYGH. **Participants:** DCIS patients who completed active treatment (surgery+radiation). Excluded from the study were DCIS patients with active issues; physical exam, imaging, or pathology findings requiring follow-up. **Quality Measures:** Safe, effective, patient-centred, and timely care. **Main Outcomes:** Percentage of eligible DCIS patients successfully transferred to FMD. **Results to Date:** The EMR search identified 24 DCIS patients with upcoming follow-up appointments. Fourteen patients met eligibility requirements and received transfer-of-care discussions. Eight (57%) patients were successfully transferred. Six (43%) patients expressed concerns and were not transferred. Concerns included patient perception of superiority of consultant care, expectations of continued consultant follow-up, perception that FMDs do not perform breast examinations, and FMD retirement. **Conclusions:** Preliminary data suggest that this transfer-of-care model leads to successful repatriation of DCIS patients. Future steps include engaging new DCIS patients in transfer-of-care discussions early to ensure patients, SOs, and FMDs share in a successful repatriation process.

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617 Physician Input Within a Multidisciplinary Team to Manage Patients at Nutrition Risk

Celia Laur*, MSc, RNutr, FHEA; Heather Keller, RD, PhD, FDC; Shivani Bhat, MSc; James Bradfield;
Pauline Douglas, RD, MBA; Minha Rajput-Ray, DO, ND, MBChB, DOccMed;
Sumantra Ray, MD, RNutr, MPH, MBBS, DNHE

One in three patients admitted to hospital are malnourished and many leave in either an equally or further malnourished condition. For this reason, all healthcare professionals, including physicians, have a responsibility to ensure optimization of nutritional status within clinical management plans pre-, during, and post-hospitalization. Malnutrition typically develops in the community and about 34% of Canadians are at risk, making this an important issue across primary and secondary care. Addressing the nutrition needs of all patients requires multidisciplinary teamwork and education. Although current evidence shows that physicians can lack training, confidence, competence, and time for adequate nutrition support, multidisciplinary team (MDT) engagement is one approach to address this issue. This multidisciplinary approach was demonstrated in the Canadian More-2-Eat implementation project that improved the detection, treatment and monitoring of malnutrition in five hospital units. In particular, hospital staff/management were supported to recognize their role in nutrition care for patient recovery. Physicians are crucial within the MDT. For example, when units implemented food intake monitoring so low intake triggered follow-up, having the physicians ask the team about patients' food intake and engage in the nutrition conversation strengthened the impact of the initiative. Another approach is nutrition education, which is lacking in medical curricula across the world. More-2-Eat's collaborator, the UK NNEdPro Global Centre for Nutrition and Heath, focus on increasing physician knowledge by finding innovative ways to incorporate practical and evidence-based nutrition education into medical curricula, particularly at Cambridge University. This education includes identifying key signs of nutrition risk (i.e. unintentional weight loss), and when and how to refer to a nutrition professional, thus equipping future doctors with the knowledge and competence to provide nutrition care. Through MDTs and increased nutrition education, More-2-Eat and the NNEdPro Group have illustrated the key role of all physicians in supporting the nutrition needs of patients.

Medical Student

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618 A Literature Review Comparing the Effectiveness and Safety of Shingles Vaccines

Zane Brickman*, MSc; Adam Dwosh, MD, CCFP, FCFP; Eva Knifed, MD, CCFP, MHSc (bioethics)

Objective: Compare the efficacy, safety and adverse events (AE) data of the new adjuvanted recombinant herpes zoster subunit vaccine (HZ/su), released in 2018, in comparison with the live attenuated herpes zoster (ZVL) vaccine, released in 2009. **Design:** PubMed, Cochrane Library and Google Scholar were searched. Included studies were relevant randomized control trials, as well as relevant review articles. **Results:** The Phase III, randomized, double-blind, placebo-controlled studies for adults over the age of 50 and 70 respectively (n=15,411 and n=13,900) showed that the HZ/su vaccine was 97% and 91% efficacious in preventing shingles, and was associated with a rate of 81.5% and 74.1% of local AEs and 66.1% and 53% of systemic AEs. There were no significant differences between HZ/su and placebo in serious AE, potential immune-mediated disease and death. Conversely, in the Shingles Prevention Trial for the ZVL vaccine (n=38,546), the efficacy of preventing shingles was 51.3% with rates of local and systemic AE at 48.3% and 24.7%. As well, early trial data demonstrated no short-term safety concerns with HZ/su in the following: Previous vaccination with ZVL at least 5 years previously, prior history of HZ and co-administration with influenza vaccine. **Conclusion:** Currently, there are no short-term safety concerns with the administration of HZ/su in immunocompetent patients and some subpopulations. While the vaccine shows strong efficacy and early safety data, there is limited long-term safety data compared to ZVL. Currently, it is important to counsel patients about the expected AEs if thinking about providing them with the vaccine. The final recommendation from NACI about the new shingles vaccine, HZ/su, is currently pending.

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619 Virtual Care for Homebound Frail Seniors Using Telemedicine: A pilot study

Andrea Moser*, MD, MSc, CCFP (COE), FCFP; Aliya Hirani, MD, CCFP (COE);
Aysha Bandali, MN, NP - PHC, GNC (C); Sarina Trac, BA; Rosalind Sham, BSc, MSc, PMP;
Christina Gallucci, BSc; Jahnel Brookes; Haddas Grosbein – BSc

Baycrest Health Sciences has changed how health care is delivered to our geriatric homebound patients. Baycrest and The Centre for Aging and Brain Health Innovation began planning of a pilot project in April 2016 to implement and evaluate the use of virtual care to support home visits. The goal of the project was to reduce emergency department visits and provide patients with complex chronic conditions the ability to stay at home while being able to access care. Virtual care has evolved over the years. The technology has changed from room based video conference systems to software and apps that can be downloaded and used on a smart phone or tablet. These advancements make it easier for health care providers to deliver care to patients. A telehealth appointment no longer consists of physician / patient visit using room based systems. Smart phones and tablets have turned the technology into a mobile health care solution which reduces risks to vulnerable and complex patients while improving their safety and wellbeing. The Integrated Community Care Team (ICCT) is an interprofessional team with care of the elderly physicians, geriatricians, nurse practitioner, registered nurses, social work, occupational therapy and physiotherapy in collaboration with home and community care providers. Members of this team provide primary care, shared care and comprehensive geriatric assessment to homebound frail seniors with complex needs. The project utilizes Ontario Telemedicine Network (OTN) to connect with a clinician through a mobile device during a home visit. This poster will highlight the evaluation of this project that focused on key enablers, outcomes and experience measures. Delivering health care to our patients at home reduces the risks and resources required to transport vulnerable patients from their homes to the hospital. It also enables family members and caregivers to be present promoting patient and family centered care.

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620 Experience of Patients Undergoing First Trimester Medical Termination of Pregnancy

Meg Casson*, MD, MSc; Ashley Waddington, MD, FRCSC, MPA; Mare-Eve Murray, MD, FRCSC

Health Canada approved the use of mifepristone, in combination with misoprostol under the brand name Mifegymiso, for medical abortions in July 2015. In August 2017, this regime was introduced at the Women's Clinic at Kingston General Hospital (KGH) for the termination of early pregnancy. Mifepristone has been widely used for medical abortions for over 20 years in other countries with high levels of effectiveness, patient safety and patient satisfaction. The clinical use of mifepristone for medical abortions in the Canadian setting, however, is new and benefits from examination to characterise the uptake, effectiveness and acceptability by patients and health care providers. The patient perspective and experience was assessed through self-completed questionnaires at individual follow-up visits at the Women's Clinic. Qualitative analysis sheds light on reasons for choosing medical as oppose to surgical terminations while Likert-scale responses quantifies experience of pain, bleeding and duration of such symptoms compared to what was expected. Additionally, the level of patient satisfaction with the use of Mifegymiso, and whether they would choose to use it again was explored. These findings can inform Canadian health care providers and patients on expected symptoms and outcomes of this regime for medical termination of pregnancy. This research is ongoing but prelimanry findings suggest despite great levels of pain, cramping and bleeding than expected, patients have an overall high level of satisfaction with their use of Mifegymiso. Data collection will be complete by the time of poster presentation.

Resident

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621 Suicide Prevention: Is the screening and treatment of suicidality consistent with evidence-based data?

Annie Lemay*, MD; Erin Luxenberg, MD

The literature in the area of suicidality shows that a significant number of suicidal patients present to a primary care doctor in the month preceding a suicidal attempt. Further, literature shows that while family doctors are skilled at screening for suicidality, physicians receive little training. The management steps taken when faced with a suicidal patient vary considerably among doctors, despite evidence-based management strategies for suicidality that are in existence. In light of these findings, we explored the current strategies that are used at CLSC Metro (Montreal). This entail detailing the steps that are taken by physicians at our clinic, and examining how they compare/contrast to the evidence-based strategies and guidelines in primary care. We randomly selected and reviewed the charts of 65 CLSC Metro patients who were noted in MYLE to have presented for at least one appointment since 2016 for suicidality. The following keywords were used: suicide, suicidality, SI, depression, substance abuse. Of the 65 charts that were selected, 28 patients were actually seen in clinic for true suicidal intentions. For the patients who did not present with clear suicidal ideation, but with alternate mental health problems, 13% were screened for suicidal ideation. With the goal of consolidating existing guidelines for suicide prevention in primary care, we constructed a database of the evidence-based management strategies. To accomplish this, we conducted a literature review to gather articles on best practice in suicide prevention, then put together a two-page document detailing the appropriate management of suicidality in primary care clinics, including an algorithmic approach. Using these guidelines, we were able to compare and contrast the current approaches to suicidality at CLSC Metro to the evidence-based guidelines. Further we were able to formulate input on how to improve screening and management of suicidality at CLSC Metro in light of our comparison analysis.

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622 New Pillars for a New Vision: Renovating the Patient's Medical Home

Arlen Keen*; Artem Safarov

The Patient's Medical Home is the CFPC's vision of the future of family medicine in Canada. Evolving since its launch in 2011, the Patient's Medical Home (PMH) has been undergoing some substantial renovation in the past year. Since its inception, the PMH has rested on a foundation of ten pillars that describe the areas of focus that help family practices fulfill the principles of the vision. Through extensive consultation as part of an effort to refresh the PMH, these pillars were reviewed and updated to make them more relevant to the current demands, more applicable to practice, and more in tune with the ongoing development of the PMH. Review the poster to get an at-a-glance understanding of how the vision is changing to make sure Canada's family practices continue to serve their communities.

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623 Frail to Fit: Outcomes of a Northern Ontario Fall Prevention Program

Lorraine Sharp*, MD; Anthony Fiacconi, BScPT; Tsha Carroll, MScPT; Erin Mulroney

Context: Falling is a common and complex issue for older adults, but mounting evidence demonstrates exercise as a main component in effective prevention. It is recommended that primary care practitioners screen older adults for fall risk and make appropriate referrals. Despite this, the number of fallers remains high. **Objective:** To determine the effectiveness of integrating an evidence-based strength and balance fall prevention program into a clinical setting. **Design:** A single centre, quasi-experimental, before and after study. **Setting:** Algoma Geriatric Clinic in a Northern Ontario Hospital. **Participants:** Eligibility criteria for program entry included any current Algoma Geriatric Clinic patients that are community-dwelling older adults with no more than mild cognitive impairment (MMSE ≥ 24), are cleared for exercise by a physician/NP, and determined to be at a high risk for falling (N=35). **Intervention:** Study participants attended the clinic twice weekly for a duration of twelve weeks. Patients participated in two physical therapist led group exercise sessions, with strength and balance components, and one fall related education session each week. Follow ups were scheduled for 3 and 6 months post-program completion. **Primary Outcomes:** Changes in physical ability from baseline to post-program testing. Strength and balance was assessed using Timed-Up and Go (TUG), left and right Hand Grip Strength, 30 Second Chair Rise, 2 Minute Walk Test, and Berg Balance Scale (BBS). Secondary outcomes included changes in self-reported falls and the Activities-specific Balance Confidence (ABC) Scale. **Results:** Paired t tests on participant metrics demonstrated significant (P < .01) differences between before-and-after results on the following measurements: TUG, 30 Second Chair Rise, 2 Minute Walk Test, BBS, and right Hand Grip Strength. There was no significant difference in the left Hand Grip Strength or ABC scores. **Conclusion:** Improvements in participant strength and balance indicated a successful evidence-based fall prevention program within this clinical setting.

Medical Student

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624 Developing Relational Continuity of Care Measures for Use in an Academic Family Practice

Nabeel Quasimuddin*; Karine Gautier; Elizabeth Muggah, MD, MPH, CCFP, FCFP

Objective: To develop a validated measure for relational continuity of care (COC) using the Electronic Medical Record (EMR). **Design:** We report here the first part of the quality improvement study which extracts baseline data on relational COC. **Setting:** A large academic Family Practice in Ottawa, Canada with two sites and approximately 17,000 patients. Family Medicine resident(s) are assigned a faculty supervisor and to that supervisor's patients. **Participants:** We assessed all patient visits to family physicians or nurse practitioners between January 2014 to December 2017. **Main Outcome Measures:** Two measures of COC were calculated using appointment data within Telus PS Suite EMR. The Usual Provider Continuity index (UPC) represents the number of encounters a patient has with their usual care provider and their resident team in a time period over the total number of encounters a patient has over that time period. The Provider Continuity Index (PCI) is a measure we developed that represents the number of encounters a provider and their resident team has with patients from their panel over the total number of encounters a provider and their resident team has over a time period. UPC represents COC from the patient's perspective while PCI measures COC from the provider's perspective. **Results:** Over 2017 there were 42 097 visits to providers. The mean UPC for 2017 was 0.78 with a range of 0.64 to 0.85 across providers. UPC was positively associated with increasing age. The mean PCI was 0.77 (range 0.61 to 0.93). The mean PCI was higher when residents were excluded (0.88). **Conclusion:** Relational COC can be assessed using EMR data to understand the patient and provider experience of continuity. Our academic clinic achieves COC compared with what is seen in literature. Moving forward we will explore the variance of COC across providers and implement strategies to address gaps.

Resident

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625 Does Gender of Resident Affect Number of Pap Smears Performed During Residency? Work in progress

David Ademidun*, MBChB, BScH; Jordan Sugie, MD, BSc; Heather Braybrook, MD, BSc;
Karoline Hoy, MD, BASc; Helene Baldwin, MD, BSc; Jacob Matusinec, MD, Karen Hall-Barber, MD, CCFP

Context: Competently performing Pap Smears is essential to have as a family doctor and residency is important for acquiring this skill. The volume of Pap Smears performed during residency could affect a resident's competence and confidence in this skill. **Objective:** Determine if there is a difference in Family Medicine (FM) residents' volume, perceived confidence and competence of performing Pap Smears based on resident gender. **Design:** Using the electronic medical record OSCAR, data was extracted from a total of 993 charts from the 2015-2016 cohort where Pap Smears were billed and similarly for 758 charts from the 2016-2017 cohort. The number of Pap smears completed by residents of male and female gender in each clinic was tabulated. A survey was distributed to Queen's FM residents. A component of the survey focused on inquiring about confidence and competence at performing a Pap Smear. **Participants:** A survey was distributed to Queen's University FM residents. **Main Outcome Measures:** Volume of Pap Smears performed by resident gender and clinic area at Queen's FM and whether this has an effect on perceived confidence and competence at performing Pap Smears. **Results:** The volume of Pap Smears for female FM residents is greater than the volume of Pap Smears for male FM residents. We are still collecting data to determine if there is any correlation between Pap Smear volume and perceived confidence and competence between the two groups. A total of 524 and 234 Pap Smears were performed by female and male residents, respectively in the 2016-2017 cohort (2.2-fold difference) and a total of 694 and 299 Pap Smears were performed by female and male residents, respectively in the 2015-2016 cohort (2.3-fold difference). **Conclusion:** The volume of Pap Smears performed by female FM residents is greater than the volume of Pap Smears for male FM residents.

626 McMaster Regional Faculty Teaching Certificate: A pilot project in faculty development

Catherine Tong*, MD, CCFP (EM); Anjali Kundi, MD, CCFP; Anne Wong, MD, PhD, FRCPC;
Amanda Bell, MD, CCFP, FCFP; Cathy Morris, MD, MHSc, FRCPC

Many institutions across North America are challenged to deliver faculty development to community-based faculty who practice at varying distances from the university, face increasing clinical productivity demands, and demonstrate diverse training needs. Despite these constraints, medical schools must ensure the quality of training by providing ongoing faculty development for community-based teachers. Many regional campuses across North America are keen to develop new programs tailored to the needs of community faculty members. However, very few institutions have an established program dedicated for this purpose. At the Waterloo and Niagara Regional Campuses of the Michael G. DeGroot School of Medicine, McMaster University, over 1000 part-time clinical faculty members deliver the vast majority of undergraduate and postgraduate curriculum. They contribute voluntarily and may not prioritize academic promotion. As a result, the usual university-based incentives may not be as effective. Needs assessment demonstrates that faculty members presently have unmet needs for faculty development despite a wide selection of faculty development programs offered at McMaster. In partnership with the Program for Faculty Development at McMaster, the regional campuses are rolling out a novel program for faculty development. We have adopted the structure of the McMaster University Faculty of Health Sciences Academic Pathways program and tailored it to the unique needs of community faculty members. Through this pilot project, we hope to make gains in faculty engagement and educational outcome.

627 Global Health Fellowships: A multidisciplinary survey of programs

Ann Evensen, MD, FAAFP; Sean Duffy, MD; Russell Dawe*, MD, MDiv, CCFP; Andrea Pike, MSc;
Brett D. Nelson, MD, MPH, DTM&H

Objective: To describe the current global health fellowship programs throughout Canada and the United States. **Design:** A cross-sectional online survey. **Setting:** Global health is increasing in popularity among medical learners, providing an opportunity for program directors to create innovative programs that train medical graduates to work in under-resourced settings. Nelson, et al. (2012), conducted a scan of academic global health programs throughout the United States and ultimately surveyed 80 programs to create an online database. In the current research, we have sought to update and expand upon this work. **Participants:** We surveyed 80 global health fellowship program directors. **Inclusion criteria:** Canadian or US programs offering fellowship level training in global health; from any medical discipline provided it included some clinical component (domestic or international). Programs were identified through online search of program websites, literature search, and snowballing (fellowship directors were asked to identify other fellowships). **Main Outcome Measures:** 32 survey questions assessing global health fellowship training practices in Canada and the United States. **Results:** 54 (68%) program representatives responded. 50 primary care, speciality and interdisciplinary fellowships were identified. 84% are 12-24 months in length and 92% follow completion of a residency. Mean annual fellowship positions offered are 1.9 per program. Many programs were new with 26% reporting no graduates to date. The top two challenges programs face are lack of funding and lack of qualified applicants. **Conclusion:** This study describes current approaches to global health medical education on the fellowship level.

628 CANadian CAnagliflozin REgistry: Prospective, observational study of Canagliflozin treatment in type 2 diabetes

Alan Bell*, MD, FCFP; Vincent Woo, MD; Maureen Clement, MD; Fernando Camacho, PhD;
Natasha Georgijev, MD, MSc; Jennifer Rose, PhD; Wally Rapattoni, B.Pharm, MSc; Harpreet Bajaj, MD, MPH

Objectives: The CANadian CAnagliflozin REgistry (CanCARE) assessed the effectiveness and safety outcomes of the enrolled cohort of 527 subjects (mean age 60.7 years, mean baseline A1c 8.3%) over 12 months. **Design:** CanCARE is a prospective, observational, 12-month cohort study. **Setting:** This study took place in clinical practices across Canada. **Participants:** SGLT2 inhibitor-naïve adult T2DM patients were enrolled with HbA1c ≥7% on a stable anti-hyperglycemic agent regimen at baseline and eGFR ≥ 60 mL/min/1.73m2, who were initiated on CANA as part of their usual treatment. **Intervention:** CANA 100mg or 300mg. **Findings:** Mean A1c reduction was -1.06 ± 1.12 (-0.96 for CANA 100mg, -1.20 for CANA 300mg). 84.9%, 57.9% and 33% of subjects experienced >0%, ≥3%, ≥5% weight loss, respectively. Overall, 38.8% of subjects achieved A1c <7.0%, while 41% achieved the composite endpoint of A1c reduction ≥ 0.5%, body weight loss ≥ 3%. 17.9% subjects discontinued CANA. Safety data showed 37.4% subjects had ≥ 1 Adverse Event (AE), 3.5% had serious

AEs, 14.5% had AEs special interest: GMI (9.5%), polyuria (3.7%), UTI (1.5%), severe hypoglycemia (0.9%) and volume-related AE (0.7%). No reports to date of diabetic ketoacidosis or amputations. **Conclusion:** CANA showed sustained and clinically meaningful improvement in cardiometabolic parameters in the real-world setting in Canada, confirming findings from Clinical Phase 3 trials.

Resident

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629 Osteoporosis Screening and Appropriate Treatment in Primary Care

Rebecca Jeffery*, MD, MSc; Lopita Banerjee

Rationale: Osteoporosis is a disease of aging and has a high burden of illness, mortality and cost associated with it. Screening and treating cases as per guidelines can help reduce the morbidity and mortality associated with this disease. **Objective:** To determine the appropriate screening of patients for osteoporosis, and implementation of treatment in found patients. **Design:** Chart review. **Setting:** Multiple primary care offices in the Peel Region of Ontario. **Participants:** Women and men ages 50 years and older with identified risk factors found through a review of charts in included offices. **Main Outcome Measure:** Proportion of patients appropriately screened for osteoporosis and subsequently treated appropriately based on FRAX and CAROC risk assessments. **Results:** Not yet completed. **Conclusions:** This project highlights the screening rates for osteoporosis in a sample of primary care offices and assesses whether proper treatments have been implemented based on risk scores.

Medical Student

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630 Canadian Family Medicine Residency Global Health Education Survey

Divyanshi Jalan*; Helene Morakis*; Jennifer Carpenter, MD, FRCPC (Emerg), CCFP, MSc (CHE);
Neil Arya, MD, CCFP, FCFP; William Cherniak, MD, MPH, CCFP, ABFM

Objective: This study aims to explore the breadth and organization of Global Health education in Canadian family medicine residency programs. **Setting:** Bilingual Online Survey. **Participants:** Family medicine residency Program Directors (or an appointed Global Health representative) of the 17 Canadian medical schools. **Main Outcome Measures:** What is the breadth of global health activities (GHAs) in each program? Where do programs obtain funding for GHAs? In which regions and countries do family medicine residents have global health placements? What are future directions for GHAs? **Findings:** The survey had a 100% response rate. Of 17 Canadian family medicine residency programs, 16 offer one or more GHAs. In order of decreasing availability across programs, the GHAs offered are: periodic lectures/seminars, domestic rotations, international rotations, longitudinal clinical experiences, research or scholarly projects, organized courses or other activities (e.g. remote/indigenous medicine stream, online modules, certificate program). A severe limitation to programming and resident participation in GHAs is funding: only 6 schools receive dedicated funding for their GHAs and most international rotations are not fully funded. The majority of international rotations are in low and middle income countries. Canadian schools have formed partnerships with schools in 19 other countries by participating in their medical education and organizing bilateral resident exchanges. 11 programs are looking to increase the scope of GHAs offered, and several address the need for increasing clinical activities with indigenous populations. **Conclusion:** These findings provide a snapshot of the current state of global health education in Canadian family medicine residency programs. We believe they will help guide global health education development across Canada for family medicine, as well as provide perspectives on future workforce/capacity development, in particular around rural and underserved regions within Canada. Future research should focus on recent graduates' satisfaction with global health education and relevance to their current practice.

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631 Wither the Office Plant: Growing plant-based foods inside the family practice office

Robert OConnor*, MD

There has been recent momentum towards a more plant-based, whole food diet to both prevent and manage obesity and other chronic diseases. One of the single best things that family physicians can do for their patients is to encourage a lifestyle of healthy food choices. The experiment describes the impact of modifying the family practice office to have a waiting room full of potted fruits and vegetables, and an exterior landscape of fruit orchards and greenhouses. Methodology is via semi-structured interviews with patients of a closed family medicine practice. Results detail the likelihood of patients bringing up the topic of healthy food during their appointments, willingness to undergo a healthy eating support program, and growing fruits and vegetables of their own.

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632 Newfoundland and Labrador Family Physician Profile

Carson Marcoux*, MD; Christopher Patey, MD, CCFP

Background: While family medicine still values generalist and comprehensive care, many family physicians (FPs) today are including one or more areas of special interest as integrated parts of their practices. Little is known about the scopes of practice of Newfoundland and Labrador (NL) FPs and what special interest areas exist in NL. There is a definite need for an up-to-date and comprehensive database of NL FPs to explore how FPs provide care in NL. **Objectives:** The objectives of this project are to profile the NL FP and create and maintain a physician database. **Design:** Cross-sectional survey. **Setting:** Newfoundland and Labrador. **Participants:** All practicing FPs across NL were eligible to participate in our survey. **Intervention:** Surveys were circulated to FPs in paper format and online via e-mail through partnership with the College of Family Physicians of Canada-NL. A total of 168 physicians electively and non-anonymously completed the survey (29% response rate). **Results:** There is a diversity of special interest areas of practicing FPs in NL. The majority of FPs who completed the survey indicated that they have special areas of interest in their practices (57%). Emergency Medicine, Care of the Elderly, and Palliative Care were the most common special interest areas among the survey respondents. Conclusion: Our results provide valuable insight into the current practices of NL FPs and show that there is a diversity of special interest areas in NL. It is our ultimate goal to explore how FPs help cater to the evolving patient population, what impact FPs who provide "specialized care" have on access to care in NL, and to help with student and resident placement in the future.

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633 Resident Recommended Study Resources for the Canadian Certification Examination in Family Medicine

Paul Dhillon*, MBBCh MSc-DM DTM&H(Lon) FRGS; Simon Moore, MD, CCFP

In the current academic family medicine environment in Canada there is no definitive peer-reviewed recommendations of study resources that have been helpful in guiding residents and practice-eligible candidates towards high value and high yield study resources. At each of The Review Course in Family Medicine courses (Vancouver, Calgary, Toronto, Montreal, Halifax) in 2018, a survey was distributed to all participants (n = 400+) that contained a list of all study resources currently available in print, online, as apps, and in a number of different digital formats. Residents and practice eligible candidates rated the resources that they had utilized in exam preparation and the results of their rankings are presented here for the first time in order to allow writers of the Canadian Certification Examination in Family Medicine a peer-reviewed list of resources and rankings of their value.

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634 How Medical Contracts Are Used in Chronic Condition Management: A scoping review

Erin Gallagher*, MD, CCFP (PC); Elizabeth Alvarez, MD, MPH, PhD, CMCBT

Introduction: Prevalence of chronic conditions continues to rise in North America. Despite the lack of evidence supporting their use, patient contracts are commonly used by medical professionals to manage such conditions. To date, review literature on patient contracts has been limited to randomized controlled trials, specific purposes and limited populations. The purpose of this study is to describe ‘for what’ and ‘how’ medical contracts are being used for the management of chronic medical conditions. **Methods:** In order to capture and describe the breadth of knowledge around medical contracts in the literature, a scoping review was conducted. This inclusive approach allowed for analytic reinterpretation of research activity, gaps in the literature to be identified and further avenues of inquiry to be opened. Database searches included Medline, EMBASE, AMED, PsycINFO, Cochrane, CINAHL and Nursing & Allied Health. **Results:** A total of 7,528 articles resulted from the original search. Seventy-six articles were included in the final review. Multiple study-types were represented with limited follow-up durations. Extensive variety was seen for contract target population, clinical setting and co-interventions. Purposes for initiating contracts included: 1) behavior change and skill development, including goal development and problem solving; 2) altering beliefs and knowledge, including motivation and perceived self-efficacy; 3) improving interpersonal relationships and role clarification; 4) improving the quality and process of chronic care; and 5) altering objective and subjective health indices. In relationship to how contracts are used, their development, application of behavioral theory, inclusion of patient input, training for their use and implementation processes were inconsistently described. **Conclusion:** More research is required to determine if contracts are capable of accomplishing their intended purposes. Questions remain regarding their rationale, development and implementation.

Friday, November 16 / Vendredi 16 novembre

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701 Screening for Adverse Childhood Experiences in a Family Practice Clinic

William J. Watson*, MD, FCFP; Seema Bhandarkar, NP; Katie Sussman, MSW; Ashley King, MSW

There is a compelling body of evidence that suggests that the impact of childhood trauma, adverse childhood experiences (ACE's), can have negative health consequences in adult life, both physical and mental.(Felliti, 1998). ACEs which include stressful childhood experiences such as abuse, neglect, witnessing domestic violence or growing up with alcohol/substance abuse, mental illness, parental discord or crime in the home, are a common pathway to social, emotional and cognitive, and even medical impairments in later life. These negative experiences can lead to unhealthy behaviors, school drop-out, depression, suicide, violence, disease, disability and premature mortality. In short, the ACEs are correlated with the social determinants of health which have a long term impact on health outcomes and health care utilization of our patients. (Glowa, 2016). Many physicians are unaware of the impact of ACEs , and what interventions might be available individuals with high ACE scores. Previous studies have developed the ACE survey which consists of 10 questions relating to childhood trauma.(see appendix) An ACE score of greater than 4score is associated with a significantly higher risk of health problems later in life, including obesity, smoking, depression, suicide attempts, illicit drug use, heart disease and cancer. The ACE score can help family physicians identify and facilitate conversations with their patients about adverse childhood experiences, and help provide 'trauma –informed care'. One study (Glowa, 2016) concluded: 'Incorporation of ACE screening during routine care is feasible and merits further study. ACE screening offers clinicians a more complete picture of important social determinants of health. Primary care–specific interventions that incorporate treatment of early life trauma are needed.' This abstract will describe some of the important aspects of the ACE survey and how it may be feasible for use in Family Practice as a method of screening for mental health problems.

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702 Addressing the Crisis: Using collaborative quality improvement to improve opioid use disorder care

Cole Stanley*, MD, CCFP; Laura Beamish, MSc; Jan Klimas, PhD; Danielle Cousineau, RN;
Rolando Barrios, MD, CCFP

Context: Since 2016, there have been over 2400 opioid-related overdose deaths in BC, with 600 occurring in Vancouver. Several targeted services were launched in response, but the number of overdose deaths continues to increase. Opioid use disorder (OUD) can be in sustained, long-term remission when individuals are retained in care and receive appropriate doses of oral opioid agonist therapy (oOAT). Provincial data shows only 55% of people receiving oOAT are on optimal doses. Further, six and 12-month retention rates are only 42% and 32% respectively. **Objective:** To apply structured quality improvement methodology to systematically close gaps in care for people living with OUD in Vancouver. **Design:** The Institute for Healthcare Improvement's Breakthrough Series Collaborative methodology. **Setting:** Vancouver Coastal Health (VCH) community primary care, mental health, substance use, and outreach services. **Participants:** Clients living with OUD who have accessed care at any of the participating VCH Community Health Centres (CHCs) or services (approx. 3000). **Intervention:** A 24-month Quality Improvement Collaborative. Participating CHCs use The Model for Improvement to guide system change and benefit from regular in-person coaching, qualitative and quantitative reporting, educational webinars, access to expert faculty, and quarterly in-person Learning Sessions. **Main Outcome Measures:** Access to oOAT, optimal oOAT dosing, oOAT retention, and a quality of life scores. **Results/Findings:** Preliminary process measures show teams have been highly successful in standardizing clinical data entry with a four-fold increase in the number of clients with an appropriate diagnostic code (650 to 3000). Preliminary outcome measures indicate access to oOAT is increasing and further outcome data is expected with ongoing standardized data entry. **Conclusion:** It is anticipated that this organized effort across primary care and other services in Vancouver will result in improved retention rates, more clients on optimal treatment doses, and improved quality of life for people living with OUD.

Resident

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703 Changing the Culture of UTI Management

Sahaana Rangarajan*, MD; Siavash Taheri-Shalmani*, MD; Lindsay Wong, PharmD; Zhanying Shi;
Gina Yip, MD, CCFP

Context: Although routinely ordered, urine cultures are not required for all patients presenting with lower urinary tract symptoms (LUTS). An EMR review conducted at Health For All (HFA) Family Health team in Markham Ontario revealed that 73% of urine cultures ordered by residents between December 1 2017 – December 31 2018 were not clinically indicated. **Design/Objective:** This quality improvement (QI) study was initiated at the HFA Family Health Team in Markham with the goal to reduce the proportion of unnecessary urine cultures ordered for suspected UTIs. **Participants:** Patients who had at least 1 urine culture ordered were evaluated for study eligibility. Patients were excluded from the study if they were male, pregnant or <18 years of age. 90 patients were included in the pre-intervention analysis (December 1 2016 – December 31 2017) and 15 patients in the post-intervention analysis (February 1st – March 28 2018). **Intervention:** Several PDSA cycles were completed over the course of this study. A literature review was conducted to define appropriate indications for ordering urine cultures in our target population. A resident survey revealed that 46.7% of residents were not aware of the indications to order a urine culture. Subsequently, a UTI management algorithm was developed and implemented in the EMR to help guide residents to order urine cultures only when indicated based on the Toronto Central LHIN guidelines. **Main Outcome:** Percentage of patients who had urine cultures ordered with no indication. **Results:** Following implementation of the UTI management algorithm there was a 73% reduction in the number of urine cultures ordered with no indication between February 1st – March 28 2018. **Conclusion:** Implementation of a UTI management algorithm in a family medicine teaching unit can increase safety and decrease costs by reducing the number of unnecessary urine cultures ordered for urinary related complaints.

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704 Using EMR Data, QI and Research to Improve Care for Complex Elders

Michelle Greiver*, MD, MSc, CCFP, FCFP; Simone Dahrouge, PhD, MSc; Patricia O'Brien, RN MScCH; Donna Manca, MD, MClSc, FCFP; Marie-Therese Lussier, MD, MSc, FCFP

Objective: To describe the elements of a large quality improvement (QI) and research collaboration to improve care for complex elderly patients. **Background:** Some elders are living with multiple chronic conditions and are taking many medications, some of which may not be beneficial. Single disease focused guidelines may not be helpful and can sometimes increase medication burden with limited benefit or even harm for patients. Complexity itself may make it difficult to understand how to improve care and may be frustrating for both physician and patient. We propose a new collaborative program to address this. **Target Population:** Complex elderly patients taking ten or more unique medications and followed in primary care practices. **Intervention:** A Structured Process Informed by Data, Evidence and Research (SPIDER). Practices applying SPIDER approach will 1) form inter-professional Learning Collaboratives, 2) review validated and comparable EMR data and 3) work with QI Coaches to identify areas of potential improvement, develop strategies, implement changes and evaluate the impact. The difference with SPIDER: SPIDER uses QI methods, including rapid Plan-Do-Study-Act cycles, and support from QI coaches as part of Learning Collaboratives. It also provides validated, comparable EMR data obtained from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). Finally, it leverages research methods in Practice Based Research Networks for measurement to compare information across practices. The collaborative efforts of clinicians, patients, QI experts and researchers is what provides SPIDER its power. SPIDER received $1Million CIHR funding in February 2018 and secured over $1.6 million from partners.

Medical Student

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705 Cognitive-Behavioural Therapy for Insomnia Tool in Primary Care: Addressing shortage of psychotherapy services

Susy Lam*, MSc; Ashley Zaretsky, MD, CCFP, MSc; Jay Nathanson, MD, MPH

Insomnia is a common issue among Canadians, with a nearly 40% prevalence of individuals who meet at least 1 symptom criteria of insomnia. In addition, insomnia negatively affects the patient at an individual level, through reduced quality of life and increased risk of depression - as well as at a systemic level, where insomnia impacts occupational productivity and poses an economic burden on society. Often, primary care physicians are the first point of contact that patients seek when they experience symptoms of insomnia. Cognitive behavioural therapy (CBT-i) is a gold-standard treatment for insomnia, proven to be more efficacious and sustainable over time for insomnia symptoms compared to medical therapy in patients with primary insomnia. Currently, the wait time to access OHIP-funded services in psychotherapy is in the order of months to years, leaving many patients faced to choose between waiting a long time for covered therapy, or paying out of pocket to immediately access private psychotherapy services. To address this issue, the Insomnia PowerPlan (SleepRx) was developed. It is a CBT-i derived information tool for physicians and patients to work together and address symptoms of insomnia. The tool contains themes of sleep restriction, sleep hygiene, medication de-prescribing for insomnia, as well as a focus on important elements of CBT, such as reframing cognitive distortions. This tool aims to facilitate the dialogue between physicians and their patients through developing a tailored plan to address their insomnia at home, using the SleepRx. Ultimately, the goal of this initiative is to: (1) help alleviate the symptom-burden that patients with insomnia experience, through intervening at the primary care level using SleepRx; and (2) create a quality-improvement program using the tool as a cornerstone to help patients access strategies for insomnia management early in their care, and (3) raise awareness for medication de-prescribing in insomnia.

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706 Uncommon Infections in Children Suggest Underlying Immunodeficiency

Aisha Shakoor*, MD; Ahmed El-Isa, MD; Elizabeth Kinsella; Ryan Halas, MD; Andrey Leonov, MD

Infective endocarditis (IE) results from bacterial or fungal infection and is associated with significant morbidity and mortality. Several known risk factors exist for endocarditis and 90% of pediatric cases have an underlying structural or congenital heart disease or prosthetic heart valve. Literature on IE in previously healthy children is relatively sparse, and the pathogenesis and underlying risk factors remain mostly unknown. Our patient was a 3-year-old male with a unique presentation of IE. His lack of structural and congenital risk factors for endocarditis prompted further workup and labs were consistent with insufficient immunoglobulin suggesting a primary immunodeficiency (PAD). PAD presents as heightened susceptibility to infections, commonly seen as recurrent pneumonia, meningitis, septic arthritis and otitis media. Pediatric patients commonly have infections, yet as many as in 1 in 2000 patients have PAD. Our case emphasizes the potential need for further investigation into PAD in a young patient with no known risk factors who develops an uncommon infection such as IE.

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707 Myths and Truths About the Immigration Medical Exam for Refugees

Della Faulkner*, PhD, RN

Immigration, Refugees and Citizenship Canada (IRCC) requires all refugees to undergo an overseas immigration medical exam as part of processing resettlement applications. An understanding of what medical screening is done and how the information is shared with stakeholders is important for helping family physicians to address the health needs of newly-arrived refugees. Family physicians are often refugees' first point of contact with the health-care system, and therefore, an instrumental resource to obtaining needed medical care. The poster will begin by debunking myths about the immigration medical exam and why it is conducted. Learners will explore the purpose of the medical examination, what treatment is provided pre-departure, and whether refugee applicants may be refused admission to Canada for medical reasons. The poster will also compare and contrast the medical history, physical examination and screening tests done as part of the immigration medical examination with evidence-based clinical guidelines for screening immigrants and refugees (Pottie, K. et al, 2011). This will address infectious disease, mental health, women's health, etc. The poster will describe how information collected through the immigration medical examination is shared with settlement providers, refugee sponsors and health professionals. Options for obtaining information will be identified and compared. Discussion will allow family physicians to reflect on their first-hand experiences in using IRCC medical information, including whether and to what extent the information has helped them to identify health needs among newly-arrived refugees and to refer refugees for needed medical services.

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708 Project ECHO Care of the Elderly

Lisa Sokoloff*, MS, CCC-SLP, Reg. CASLPO; James Chau, MD, CCFP, FCFP; Sid Feldman, MD, CCFP, FCFP; Andrea Moser, MD, CCFP, FCFP (COE); Diana Markova, MSc; Aysha Bandali, NP-PHC, MN, GNC(C); Faith Boutcher, RN, MSc; Shaen Gingrich, PT, MPT; Valerie Scarfone; Salma Shaikh, BMBS; Rosalind Sham, MD

Objective: To evaluate the efficacy of the ECHO Care of the Elderly program in increasing capacity of primary care providers to manage care of older adults. **Design:** Mixed-methods; program evaluation. **Setting:** The ECHO-COE education program is conducted virtually via videoconferencing. **Participants:** Participants were primary care providers across Ontario (n=30). **Intervention:** Project ECHO Care of the Elderly (ECHO-COE) was piloted over 10 weekly sessions with the goal of building capacity for primary care providers in the care of older adults. ECHO uses a "hub and spoke" model where specialists at the hub support primary care providers in the community (spokes). Each weekly session focused on a topic related to geriatric care, selected based on needs assessments. Sessions included a short didactic presentation by a medical expert and a case presentation by a spoke. Education and support was bidirectional; knowledge was shared from hub to spoke, spoke to hub and between spokes. Participants registered on a Community of Practice website for access to videos and slides of the didactic presentations and resources and tools mentioned in the sessions. Participants completed on-line pre and post knowledge and self-efficacy questionnaires, weekly satisfaction evaluations and live focus groups. The project was approved by the Research Ethics Boards 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:** Participant satisfaction, declarative learning (knowledge), self-competency, participant engagement during sessions. **Results/Findings:** This presentation will highlight quantitative and qualitative results, focusing on key outcomes and primary care providers' and hub members' experience including participant engagement during ECHO sessions, and recommendations. Primary care provider participants' satisfaction data as well as their pre-post ECHO declarative learning and self-efficacy data will be shared.

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709 Epigenetics, Estrogen Metabolism and the Risk of Breast Cancer

Jennifer Pearlman*, MD, CCFP, NCMP, FAARM, ABAARM, CFA

Insights into the role that estrogen plays in the transformation of normal breast tissue to ductal carcinoma indicate that there are direct, indirect and epigenetic effects. Permutations of genomic variations in the biosynthesis of estrogen and its biphasic detoxification combined with the epigenetic influence of environmental factors can shape risk of estrogen dependent disease such as breast cancer. This abstract presents the critical steps of estrogen biosynthesis and metabolism where established genomic variation and epigenetic effects have been shown to alter breast cancer risk and prognosis. The importance of this research holds vast implications on the ability to individualize patient care with risk assessment, screening and treatment recommendations matched to the unique health print of each patient. **Objective:** To describe the genomic variations and epigenetic factors that influence biphasic estrogen metabolism and alter breast cancer risk. **Methods:** A review of the basic science underlying the biphasic process of estrogen inactivation and detoxification and etiology by which estrogen may serve as an initiator of breast cancer. The genetic and epigenetic risks that alter estrogen metabolism and increase breast cancer risk are discussed. **Results:** Genetic variations exist at each critical step of estrogen biosynthesis and its biphasic detoxification. Further variability is introduced through epigenetic influence such as environmental exposure to xenoestrogens and endocrine disrupting chemicals. **Conclusions:** The ability to detect genetic predispositions and measure potentially harmful estrogen intermediate metabolites can provide insights to improve screening and disease management. With personalized breast cancer risk assessment based on estrogen epigenetics and metabolism, it is possible to more accurately detect individuals at high risk and offer more intensive screening or aggressive treatment.

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710 Withdrawn

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711 Un modèle novateur de clinique multidisciplinaire pour la prise en charge du TDAH

Maude Boucher*; Alexandre Charest, MD; Sylvie Bourassa, MD, CCMF; Amélie Charbonneau, inf. cli.; Josée Gagnon, IPSPL; France Poirier, BPh; Samuel Boudreault MD, CCMF; Pascale Breault, MD, CCMF, MSc; Jean-Sébastien Paquette, MD, CCMF, MSc.

Contexte: Le trouble de déficit de l'attention avec ou sans hyperactivité (TDAH) est le trouble neurodéveloppemental pédiatrique le plus rencontré en première ligne. Alors que l'utilisation des médicaments spécifiques à son traitement est en constante augmentation, une vaste littérature questionnant les meilleures pratiques reconnaît le caractère central d'une approche multidisciplinaire de cette problématique. Cependant, il n'existe aucun modèle de collaboration spécifiquement conçu pour répondre aux besoins des soins de première ligne. **Objectif:** À partir des plus récentes données probantes et d'une approche de collaboration interprofessionnelle, proposer un premier modèle de clinique multidisciplinaire dédiée à l'évaluation et à la prise en charge en première ligne de la clientèle pédiatrique chez laquelle un diagnostic de TDAH est soupçonné. **Type d'étude:** Étude descriptive basée sur une revue de la littérature et sur un processus itératif de validation de l'organisation de la collaboration interprofessionnelle. **Participants:** Médecins de famille, résidents en médecine familiale, infirmières et pharmacienne œuvrant au sein d'un groupe de médecine de famille universitaire. **Intervention:** Méthodologie en trois étapes : 1) Réalisation d'une revue narrative de la littérature et des principales lignes directrices sur l'évaluation et la prise en charge du TDAH chez l'enfant; 2) Élaboration d'un premier algorithme de prise en charge à partir des données de la littérature; 3) Révision de l'algorithme de prise en charge au moyen d'un processus itératif de validation effectué auprès d'une équipe multidisciplinaire pour formaliser le modèle d'organisation des soins qui soutiendra l'implantation subséquente d'une première clinique multidisciplinaire et standardisée sur le TDAH. **Résultats:** Développement d'un premier modèle de collaboration interprofessionnelle fondé sur les données probantes pour la prise en charge du TDAH en première ligne. **Conclusions:** Ce modèle novateur pourrait servir à d'autres initiatives semblables à l'échelle québécoise voire même canadienne.

Resident

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712 Impact and Correlates of Outside Use Within an Academic Family Health Organization (FHO)

Golden Gao*, MD; Jeffery Di Tomasso, MD; Ashley Chan Tai Kong, MD; Charlotte Dawson, MD; Antoinette Mihaylova, MD; Karen Hall-Barber, MD, CCFP, FCFP, MSc(HQ)

Context: Outside use (OU) is services provided to patients rostered to a particular family health organization (FHO) by family physicians outside the FHO. Physicians within a FHO receive an access bonus (AB) for limiting OU incurred by their rostered patients, which has significant financial and patient-care implications for FHOs. **Objective:** To measure the financial impact of OU on an academic FHO and to identify correlates of OU. **Design:** This cross-sectional study utilizes OU reports from the Ministry of Health and Long-Term Care (MoHLTC) to identify rostered patients who generate the most OU over a 6 month period. Through retrospective chart review, correlates of OU are identified. **Setting:** Academic FHO in a medium-sized city. **Participants:** OU reports of 12 family physicians were evaluated and charts of 10 patients with the most OU per physician (120 patients total) were reviewed. **Main Outcome Measures:** Financial cost ($) and correlates of OU. **Results:** Average monthly OU and AB per physician were $931 and $728 respectively. The 10 patients with most OU per physician accounted for 45% ($422) of the average monthly OU per physician. Bivariate correlation analysis demonstrated no statistically significant relationship between OU and patient demographics, active medical issues, or clinic attendance. Documentation of OU within patient charts was found for only 15% (18) of the 120 patients. **Conclusion:** OU has significant financial impact on an academic FHO. Patient de-rostering is a proposed strategy for mitigating this financial impact. In our study population, de-rostering the 10 patients with most OU per physician will reduce OU by 45% and increase AB by 58% per month per physician. OU cannot be readily predicted or identified through patient chart review. FHOs should use MoHLTC OU reports to evaluate the financial impact of OU and more research is needed to identify additional strategies to reduce OU.

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713 Definition of Frequent Attender of General Practice

Edoardo Cervoni*, MD

Background: Frequent attenders have been defined as patients who attend a health care facility repeatedly. However, the frequency of attendance has been variously defined and there is not a set definitional threshold. Taking into account the pressing workload in General Practice, there is an obvious need to identify more specifically frequent attenders (FAs) in order to formulate a tailored clinical and social management plan thereby enhancing safe clinical care, reduce the burden on healthcare system, and increase patient's satisfaction. **Methods:** In Primary Care setting we collected data on 9651 persons registered with 4 different named GPs. Frequent attendance was defined as the top 5% of enlisted patients. The data were then analysed according to sex and age band. The results were compared with those already available in literature. **Results:** Of all enlisted patients, 20% did not consult their GP during the study year. The top 5% of attendants, that is 399 patients, did visit their GP at the least 15 times in 1 year. Among them, there were significantly more females than males. In total, female FAs saw their GPs 27157 times, and male FAs 17032 times. The most frequent attendant female did consult her GP 51 times in 1 year, and the top male FA 37 times. The number of consultations per year appear to follow an exponential trend in both sexes. **Conclusions:** Our data appear to suggest that, above number of GP attendances per year is linked only in some extent to ageing and multi-morbidity and that a threshold of 15 GP visits per year may be used to identify those patients more likely to overuse primary and secondary care resources.

Resident

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714 The Global Economic Impact of Common Mental Disorders and Their Treatment

Shelly Chopra*, MD, MHA; Timothy Walters, MD; Aaron Sobkowicz, MD

Objective: The primary objective of this study was to assess the global economic impact—including the health, social and financial consequences—of common mental disorders (CMDs) and their treatment. **Design:** To achieve the intended objective, we a) performed a descriptive analysis of international survey and trial data examining the health, social, and financial burden of CMDs and their treatment, b) developed a visual framework to illustrate the range and interrelationship of CMD treatment outcomes, and c) modeled the quantitative impact of treating the CMD of depression on work participation. **Findings:** Data derived from the World Mental Health Survey on low, middle and high income countries demonstrated that CMDs result in significant mental and physical morbidity, premature mortality, caregiver burden, decline in social functioning, as well as financial costs associated with increased health care service use, unemployment and reduced productivity at work. Aggregate trial data supported that treatment can counteract some of these effects, with demonstrable improvements in quality of life, reduction in disability, less caregiver time, increased social participation, and fewer days lost to absenteeism and presenteeism. Our quantitative modelling analysis showed that treatment of depression results in a 6% increase in ability to work and a 27% increase in productivity— equivalent to 25 added days of work per year. **Conclusion:** The impact of CMDs such as anxiety and depression is far reaching, crossing domains of mental and physical health, social utility and financial well-being. Treatment of CMDs has a direct effect on a person’s health through a decrease in morbidity and mortality, as well as downstream benefits of increased household welfare, social contribution and productive employment.

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715 Withdrawn

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716 The Effect of Urban Density on Mental Health: A systematic review

Kyle Lee*, BM BS, CCFP; Pamela Kaufman, PhD

Background: Anxiety, depression, and schizophrenia appear to be more prevalent in urban environments. Suicide rates also appear to be higher in dense urban areas. The built environment has been proposed to influence mental health. As an increasing proportion of the world becomes urbanized, more research needs to be done to determine what environmental factors lead to poor mental health outcomes. **Objective:** A systematic review was conducted to determine the impact of the urban environment and its effect on various mental health outcomes in adults aged 18 or older living in Westernized societies. **Methods:** A systematic review of the literature was conducted in January 2018 for articles published within the last 10 years. Peer-reviewed articles written in English from Pubmed and Google/Google Scholar databases were included. The search strategy was based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) template. Only those studies based in Westernized societies were included. **Results:** A total of 389 studies were identified, and 349 studies were excluded based on our exclusion criteria. 8 final studies were included in our systematic review from 2008 onwards. The Newcastle-Ottawa Quality Assessment Scale was used to assess studies from our literature search. 5 of the 8 studies found a significantly positive association between urban density and poor mental health outcomes. Poor mental health outcomes were described as either antenatal and postnatal depression, symptoms of anxiety and depression, or rates of prescribed medications for mood disorders. Density was defined by variable methods. **Conclusion:** Overall, denser urban areas were associated with poor mental health outcomes. Future studies would benefit from using unified and standard validated tools to measure urban density and mental health outcomes.

Resident

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717 Use of Unsafe Teething Remedies in a Mid-size City: A survey

Farah Abdulsatar*, MD; Michael Miller, Ph.D; Sepideh Taheri, MBChB, FRCPCH

Various remedies are available for relieving teething symptoms in infants. Some remedies, such as amber necklaces, have no evidence of their efficacy, yet are being widely marketed and used. On the contrary, teething necklaces are unsafe, corroborated by recent reports of suffocation accidents and death. There is no published literature on the prevalence of teething remedies and what may determine parents' choices. The primary objective was to assess the prevalence of unsafe teething remedies, especially teething necklaces. The secondary objective was to determine any association between their use and (a) socioeconomic status (SES), and (b) maternal education. Children aged 12-18 months in a mid-sized Canadian city visiting their primary care providers for routine well-baby checks were included. Children aged 18 months and those with chronic medical conditions were excluded. Parents completed a survey about their child's teething symptoms and the remedies used to relieve them. Unsafe remedies were based on recommendations published by the Canadian Pediatric Society. They included oral-numbing gels, necklaces (Amber and Hazelwood), and liquid-containing teething rings. Out of 130 surveys, 123 were included for statistical analysis due to missing data. Mean (SD) infant age was 14.47 (2.56) months, and mean (SD) age at first tooth was 6.92 (2.00) months. Overall, 98% of families used teething remedies with 67% of them using unsafe remedies. Of these families, 27% used Amber and 5% used Hazelwood necklaces. 28% of families used more than one unsafe remedy. No significant correlations were found between unsafe remedy use and SES or maternal education. This study showed that a majority of parents are using unsafe teething remedies including Amber teething necklaces, despite recommendations against their use. Use of unsafe teething remedies transcends SES and education level. These findings support the need for a new approach to parental education about teething remedies.

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718 Assessing Opinions on Trauma-Informed Health Care in Primary Care: Work in progress

Seint Kokokyi*, MA; Bridget Klest, PhD

Context: Trauma informed care (TIC) refers to a patient-care model that involves understanding, recognizing and responding to trauma, while promoting safety, trustworthiness, empowerment, collaboration, strengths-based care, and cultural context when providing care for patients. Even though there have been studies examining the implementation of TIC in medical clinics, patients' and physicians' opinions of this concept have not been adequately investigated. **Objective:** To ask patients and primary care physicians how important TIC is to them and how frequently they receive or deliver services that are trauma-informed. **Setting:** Primary care across Canada. **Participants:** English-speaking adult patients (trauma survivors and non-trauma survivors) residing in Canada, and practicing primary care physicians in Canada, participated in this study. **Main Outcome Measures:** Patient participants were given a battery of questionnaires, which included information about their demographics, trauma history, mental health symptoms, and TIC survey (patient version). Physician participants were asked about demographic information, medical education and training, and TIC survey (physician version). **Results:** Physicians rated that they perceive providing aspects of TIC no more frequently than what patients rated they were receiving (t(133)=-1.49, p>0.05). There was no difference between patients and physicians in how important they view TIC (t(135)=-1.19, p>0.05). Patients ratings of TIC importance were higher than the perceived frequency of receiving it (t(128)=-2.56, p<0.05). **Conclusion:** Physicians and patients equally view TIC as important and there was no discrepancies between patients and physicians in beliefs about what constitutes adequate delivery of TIC. When taking a closer look at patient responses, while patients view TIC as important in their care, they do not report receiving it at a frequency commensurate with its importance. This implies that in order for patients and physicians to be on the same page about TIC, either patients must adjust expectations, physicians and systems must adjust care, or both.

Resident

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719 Advance Care Planning Discussions in the Family Office: A practice improvement project

Judith Kwok*, MD; Donna McLachlan, MD, CCFP

Context: Advance care planning (ACP) can help patients receive care congruent with their goals by giving them the opportunity to reflect on their values and to consider future medical treatment preferences. **Objective:** To incorporate ACP in the routine care of elderly family practice patients. **Setting:** Single GP office in Vancouver. **Participants:** Patients over the age of 70 years old who did not have an advance directive documented in their chart. **Design:** Structured in person interviews using the SPEAK tool (a mnemonic for Substitute Decision Maker, Preferences, Expressed Wishes, Advance Directive, Knowledge) were conducted and three iterative plan-do-study-act (PDSA) cycles were implemented. **Intervention:** A physician facilitated individual ACP discussions and assisted participants in appointing SDMs, completing advance directives, and/or No CPR Medical Order Forms. **Main Outcome Measures:** Formal (number of advance directives and/or No CPR medical order forms completed) and informal ACP uptake (discussion with physician). **Results:** A total of 72 patients over the age of 70 years old were identified on chart review. Of these, ten patients (14%) had an advance directive documented in their chart. Of the remaining 62 eligible patients, 23 were identified by the family physician as being appropriate for our study and 13 patients ultimately came into clinic for an ACP conversation. None of the participants have ever had a conversation with a physician about ACP. Five patients decided to sign a No CPR Medical Order form. Results from our three PDSA cycles demonstrated that all participants were willing to follow up on outstanding matters raised in our discussions (e.g., completing advance directive, appointing SDM, etc) and that updating the EMR with specific action items for those who required follow up helped to tailor subsequent visits according to individual needs. **Conclusion:** Family physician-led facilitated ACP is effective in increasing ACP discussions and completion of formal documents.

Resident

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720 Simulation Based Curriculum: A review of resident satisfaction and confidence

Chang Lu*, MD CM; Rajani Vairavanathan, MD, CCFP (EM)

Context: The simulation-based curriculum (SBC) was recently introduced to the family medicine program at Michael Garron Hospital to provide emergency medicine and procedural training. Despite this implementation, resident feedback has not been investigated and its remains unclear whether SBC has improved the quality of family medicine education. **Objective:** Therefore, the aim of our project was to evaluate resident satisfaction towards SBC training at St. Michael Garron Hospital. **Methods:** Literature review was conducted to improve questionnaire design through relevant MeSH terms of “Patient Simulation”, “Outcome Assessment”, “Educational Measurement”, and “Curriculum”. A self-reported questionnaire was administered to a total of 53 family medicine residents from 2015-2017 prior and after each SBC-session. Using a 5-point Likert scale, each resident was instructed to score their satisfaction and self-confidence with medical scenarios (ie. using the ACLS and PALS algorithms in a code situation) and performing procedures (ie. endotracheal intubation and cardioversion). Questionnaires were anonymized and analyzed using Excel. **Results:** A total of 81 questionnaires were collected from 53 residents, with an accrued 47% loss to follow-up. Our results show resident satisfaction and confidence increased post-SBC session. SBC improved resident satisfaction and confidence by 1.2 and 1.0, respectively. Highest increase of resident satisfaction was observed in “exposure to leading or managing resuscitations” in hospital and outpatient settings. Highest increase of resident confidence was observed in “using the PALs algorithm” and “using the NRP algorithm”. **Conclusion and Future Directions:** SBC at Michael Garron Hospital helped improve resident satisfaction and confidence. As a future direction, we recommend that the questionnaires to be administered before and after each session, add additional questions regarding communication and teamwork, and optimizing questionnaire layout to improve response rate.

Medical Student

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721 Ice Cream Rounds: Promoting wellness and resilience in clinical clerks: Work in progress

Kyall Rakoz*; Maddy Links; Paula Sneath; Emily Quick; Jorin Lukings, MD

Context: Ice Cream Rounds is a medical trainee wellness project, and the purpose is to provide participants with an opportunity to discuss the challenges of residency and receive support from their peers. **Objective:** To determine if Ice Cream Rounds can promote wellness and resilience, while reducing burnout, amongst learners at the clerkship level. **Design:** The project follows a quality improvement (QI) design, using Plan-Do-Study-Act (PDSA) cycles to ensure its success in achieving our primary goals. **Setting:** The program was implemented as an informal component of the clerkship curriculum and sessions took place at the St. Catharines General Hospital. **Participants:** Participants included first and second year clinical clerks from the Niagara Regional Campus of McMaster University. **Intervention:** Using existing similar residency-based programs as a guide, Ice Cream Rounds (ICR) was developed as a peer-support program for clinical clerks. Regular sessions were run to provide a safe space for clinical clerks to connect and discuss challenges faced within clerkship over ice cream. Following a QI framework, successive PDSA cycles were used with two primary goals in mind: a) Improve the ICR program to ensure that it meets the needs of clinical clerks and contributes to their wellness. b) If the program is proven beneficial, to lobby for the adoption of Ice Cream Rounds by all medical campuses of McMaster University. **Main Outcome Measures:** Self-reported indicators of wellness, resilience, and burnout via pre- and post-intervention surveys. **Findings:** In the post-intervention survey (n=17), 77% of participating respondents felt that ICR fostered collegiality and support amongst peers, and 66.7% felt that it offered a safe space to discuss challenges of clerkship. In addition, 77.8% would recommend ICR to their colleagues. **Conclusion:** While initial findings are positive, further data will be collected and future implications of this research to the medical education community will be discussed.

Medical Student

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722 We Ask Because We Care

Mackenzie Russell*; Yvonne Blonde, MD, CCFP; Erin Beckwell, MSW;
Julie Kryzanowski, MD, CCFP, FRCPC; Mark Lees, MD, CCFP, FCFP; Lara Murphy, MSc.

Context: It is well established that the social circumstances in which we are born, live, grow and work largely determine the health of our society. These circumstances are shaped by unequal distribution of power, income, goods and services resulting in inequitable health outcomes. Physicians are encouraged to know the social determinants of their patients and to address them in the clinical setting. **Objective:** To determine the feasibility of screening patients with a questionnaire about their social determinants of health, in an academic family medicine setting. **Setting:** West Winds Primary Health Centre, Department of Academic Family Medicine (DAFM) in Saskatoon was the site of collection for this pilot project. **Design:** All patients were asked to participate at reception and, if they consented, were given an evidence-based social determinants of health screening tool that had been standardized in and modified for the Saskatchewan Health Authority. Patients were also given a post-screening survey regarding patient perception of the process. **Results:** The pilot collected 538 screening tools over seven weeks of data collection. Response rates to screening questions exceeded 95% for 17 of 20 questions for completed screening tools. The rate of missing information was highest for Number of people supported by Household Income at 13.8%. However, the "Prefer Not to Answer" option was the highest for Annual Household Income at 11.7%. Patient perception was largely positive as most patients reported they were comfortable and felt the practice was important. **Conclusions:** The collection of sociodemographic data is feasible according to this pilot project, and yields important results that can affect the care of the tested patient population. Further research is required to determine if using this screening tool could lead to improved patient health outcomes. Keywords: Social Determinants of Health, Health Equity

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723 Double Ouch: Adverse events following pneumococcal polysaccharide 23-valent vaccine first and repeat doses

Andrew Rouble, MD, MSc; Michelle Murti*, MD, MPH, CCFP, FRCPC; Gillian Lim, MSc; Tara Harris, RN, MHSc; Shelley Deeks, MD, MHSc, FRCPC, FAFPHM

Pneumococcal polysaccharide 23-valent (PPV-23) vaccine is highly effective against invasive pneumococcal disease (IPD). The Canadian Immunization Guide recommends one dose of PPV-23 vaccine for persons 65+ years of age and younger persons at risk of IPD, with one booster dose for those at 'highest risk'. As this latter group includes common chronic diseases, a large number of people require two doses. Repeat doses are known to cause larger local reactions, sometimes resembling cellulitis. Our objectives were to i) summarize the literature on adverse events following immunization (AEFIs) for first and repeat doses of PPV-23 and ii) compare PPV-23 AEFIs reported through passive surveillance in Ontario with other jurisdictions.

Our literature synthesis of English-language sources on adverse events with PPV-23 from PubMed and key safety resources included 33 publications; of these, 17 addressed safety with revaccination and 2 addressed co-administration. The reported frequency of 'any injection site reaction' ranged from 14% to 76% after first dose in 16 studies. Revaccination was consistently reported as an independent risk factor for larger local reactions and medically-attended reactions. Some studies found more severe reactions when doses were less than 5 years apart. No studies reported serious adverse events after either first dose or revaccination. Cellulitis was infrequently reported (<0.1%), with some cases likely representing misdiagnosed non-infectious inflammation. Concomitant PPV-23 and influenza vaccination did not produce an additive effect for AEFIs. Our analysis of 2016 data on AEFIs reported in Ontario found 66 reported PPV-23 AEFIs with 237,535 distributed doses. This was the second highest reporting rate per 100,000 doses of publicly-funded vaccine distributed after HPV. In the United States and Australia, injection-site reactions were the most commonly reported PPV-23 AEFIs in 2016. Patients and providers should be aware of the frequency of local reactions after PPV-23, particularly on revaccination.

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724 Implementation of Point-of-Care Ultrasound Training for Family Medicine Residents

Patrick Wong, MD, CCFP (EM)

Point-of-care ultrasound (POCUS) is increasingly being integrated into clinical practice, as an adjunct to the patient history and physical examination, and into medical school curricula. Family doctors have the unique opportunity to integrate the use of POCUS in a variety of settings, and FM residents are uniquely positioned to be introduced to how this technology may be applied the future practice. This abstract describes an introductory POCUS training for first-year residents at an urban community teaching hospital over the past three years. The teaching seminar was integrated into the academic half-day schedule. The curriculum was based upon the Core Certification program of the Canadian Point of Care Ultrasound Society. Students received an introductory didactic lecture followed by four rotating stations in cardiac, aorta, abdominal, and obstetrical scanning. Trainees were asked in an evaluation as to whether this training had useful learning objectives, if the organization of the workshop was workshop, and whether the training was realistic to real-life patient presentations. Also, trainee comfort level pre- and post-session was assessed, in which residents were asked if they were comfortable, not comfortable, or unsure with POCUS. Over 40 trainees completed the workshop over the three years, with a total of 14 trainees in the 2017 session. All 14 students found that the workshop had useful learning objectives, effective organization, and realistic patient presentations. Four out of 14 stated that they were comfortable with the use of POCUS prior to the session, compared to 12/14 after the session. Two individuals noted that they were unsure. Areas of improvement included providing additional examples of variations of anatomy and pathology. We described implementation and evaluation of an introductory POCUS course for family medicine residents. Further study would involve using a standard testing instrument to assess knowledge and skills pre- and post-intervention.

Resident

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725 Tackling the 99 CCFP Topics Using Instructional Videocast Modules

Junghwan Kevin Dong*, MD; Russell Uppal, MD; Lesley Adcock, MD

For family medicine resident physicians training in Canada, the Canadian College of Family Physicians of Canada (CFPC) board exam is the final test on their long road in medical education. In order to ease the burden of the large number of topics and objectives that are required to become competent for the final examination, students seek numerous educational resources in preparation. However, there is a scarcity of multimedia resources available to aid family medicine residents preparing for their examinations. Although there have been recent podcasts and online resources for quick access to useful study material, these are only few and by no means complete. Moreover, there is a lack of video use (ex. videocasts) to enhance education on the 99 CFPC topics for family medicine residents. In other specialties, various studies have evaluated the use of podcasts and videocasts as principle and adjunctive education tools. These methods have been shown to not only be favoured by learners but also to improve objective knowledge scores. As a result, we created a videocast multimedia educational module in hopes to provide both easy and interactive access for learners to navigate through the objectives for the CFPC board examination. Our objective was to create and distribute the modules and evaluate the usefulness of their educational value. Total of 7 family medicine resident physicians participated in the evaluation. Qualitative and Quantitative Analysis demonstrated that subjects generally found the videocast to be useful to their learning. Additionally, recommendations for improvement for future research were collected. In conclusion, our research demonstrated that videocasts have a potential role as a supplementary study resource for the CFPC examination. Further research to create more modules and provide public access would further solidify the usefulness of this study tool.

Medical Student

726 Critical Care in the ED: Scope of practice in two large community hospitals

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Objective: To describe the types of critical care procedures performed in the emergency department and to identify the skills most pertinent and commonly performed to ED presentations in the context of the community setting. **Design, Settings & Participants:** This is a retrospective chart review of patients who presented to the ED that were 18 or older AND were registered in the ED AND were either transferred to the ICU directly, through the OR, or pronounced dead in the ED. Patient demographics, time of presentation and discharge, and invasive procedures done in the ED and first 24 hours of ICU admission were recorded. Records were obtained from Grand River Hospital (GRH) or St. Mary's General Hospital (SMGH), where the majority of emergency physicians are CCFP-EM trained. **Results & Outcomes:** Of the 400 charts reviewed at GRH and SMGH, 301 procedures were performed on 180 patients. Of the patients that required a critical care procedure in the first 24h, 86% (249/301) were performed in the ED; the remaining 17% (52/301) were performed in the ICU. 88% (64/74) of the endotracheal intubations, 64% (28/44) of the central venous lines, 31% (5/16) of the arterial lines were performed in the ED. 105 patients required the use of vasopressors in the first 24h, 90% (95/105) of which were started in the ED. All the intraosseous lines, chest tubes, lumbar punctures, and pericardiocentesis combined constituted only 8% of all procedures. **Conclusions:** This study identifies the frequency critical care interventions are performed in critically ill patients admitted to the ED. Some of these procedures were infrequent and may lead to an increased risk for skill deterioration. This demonstrates the importance of critical care procedures in the emergency department in addition to the need to develop solutions to ensure skill maintenance.

Resident

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727 Apoplexie hypophysaire compliquant une maladie de Cushing

Rim Omezzine Gniwa; Wafa Allaya*; Habib Sfar*

Il s'agit d'une patiente âgée de 59 ans, diabétique de type2, dyslipidémique, hospitalisée pour suspicion d'un syndrome de Cushing. Elle présentait à l'examen physique ; un IMC = 39 kg/m², une érythrose faciale avec distribution facio-tronculaire de la graisse et une amyotrophie. Sa cortisolémie n'était pas freinable sous freinage minute (49.5ng/ml), ni sous freinage faible (417ng/ml). L'ACTH était élevée à 119pg/ml et le reste de l'hypophysiogramme a montré une insuffisance gonadotrope. Au cours de son hospitalisation la patiente a brutalement présenté des céphalées intenses avec baisse de l'acuité visuelle et diplopie. L'IRM hypophysaire réalisée en urgence a trouvé un macroadénome de 20x21 mm intrasellaire comportant des zones de nécrose interne. Le diagnostic d'une maladie de Cushing avec apoplexie adénomatose a été retenu. La conduite a été de transférer la patiente au service de neurochirurgie où elle a été opérée par voie trans-sphénoïdale. L'évolution postopératoire a été marquée par la survenue d'une insuffisance corticotrope et thyréotrope nécessitant un traitement hormonal substitutif.

Resident

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728 Barriers to Pap Screening in Primary Care for Female-to-Male Transgender Patients

Megan Alton*, MD; Susan Phillips, MD, CCFP

The frequency of cervical cancer screening in female-to-male transgendered patients is significantly less than in cis-gendered female patients. Preliminary research has sought to review the utilization of sexual health services and cancer screening tools in patients who identify as transgender; however, there is limited research into what barriers exist in cervical cancer screening in a family medicine setting. This study is a literature review aimed at exploring discrepancies in cervical cancer screening amongst female-to-male transgendered patients and what obstacles exist for such patients when presenting to their primary care providers. Possible barriers include perceived stigma towards trans populations, patient discomfort with gynecological procedures, and lack of experience or training in provision of trans-specific health care in for primary health care providers. Identification of these factors will lead to enhanced knowledge on behalf of primary health care providers, with an aim to improve experiences and outcomes for cervical cancer screening in female-to-male transgendered patients.

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729 Melanoma: A population-based study in Simcoe County, Ontario, Canada

Mohammad Keshoofy, FRCS, FACS, MSc; Bhagwanpreet Kaur*, BSc, MSc.

Rates of melanoma have been steadily increasing since the 1980s and continue to rise. With the number of dermatologists remaining relatively constant, it is expected to be a significant burden on the health care system. It is important to have an accurate estimate patient demographic data and incidence of melanoma in the general settings of a dermatology clinic. A retrospective, cross-sectional study was performed on 742 charts from patients with a first time diagnosis of melanoma at the SimcoDerm Medical and Surgical Dermatology Centre, located in Barrie, ON. The objectives of this study were to gain information on melanoma tumour characteristics and population specific prevalences of melanoma in Simcoe County. Rates of ulceration, tumour site and subtype specific characteristics are in line with previous literature on melanoma. 28.1% of melanomas were on the back followed by 19.8% on arms and 18.7% on the face. Females were more likely to present with leg and arm melanomas, compared to males who commonly presented with tumours on their backs. Patients with lentigo maligna (LM) type melanoma presented at a significantly higher age compared to those of non-LM type (66.7 ±11.6 vs. 55.7± 15.4, $p<0.001$). Furthermore, there was found to be a notable unexplained discrepancy between expected number of melanomas based on SimcoDerm cases, and projection by Statistics Canada for Ontario. We have a significantly higher incidence of melanoma at SimcoDerm Medical and Surgical Dermatology Centre compared to the projected numbers for Ontario. Whether this is a result of underreporting in parts of the province and country or as a result of better detection based on screening methods, it is yet to be determined in future studies. Improved pathology reporting and routine dermatology screening procedures for at-risk patients would result in realistic projections of melanoma incidence and effectives cost-management strategies.

730 Group Medical Appointments: An innovative approach to chronic disease care-delivery

Carlos Yu*, MD, CCFP (EM), CTH, FCFP; Anita Iacono; Vivian Lo, MD, CCFP, CTH; Jeffrey Yu

We have experienced a major challenge in family practice: the current system was designed to handle acute manifestations of disease, resulting in a reactive approach to health problems as they present themselves. A more responsive approach is needed for the maintenance and prevention of chronic diseases and mental illness. Our clinic uses innovative group appointments to go beyond the traditional biomedical model, by promoting the integrative concept of wellness, with a special focus on health behaviour modification and mindfulness practice. We use group appointments in addition to one-on-one appointments, as a more efficient method of delivering a higher quality of care by harnessing the power of groups. The group appointment model has been scientifically tested for over ten years. When compared to traditional one-on-one appointments, group appointments produce potential benefits in regards to biometric indicators (such as blood pressure, A1c and LDL-C), complications from chronic conditions, and health-related quality of life. Physical health and mental health are strongly linked, and their cross-effects must be considered. We address this in our two main wellness groups: Wellness 1, which centers on healthy behaviour change in relation to diet and exercise, and Wellness 2, which centers on psychological well-being and mindfulness. In our groups, patients are given the opportunity to share their barriers to health and wellness, while the group brainstorms solutions. Patients support each other in health promoting endeavours. Our approach to group appointments includes the promotion of healthy aging. Our seniors are inspired to action, and encouraged to actively improve their personal health and wellness. Our groups consist of people of all ages. Elders of all cultures share with younger generations, teaching them the ways people traditionally kept healthy, happy and well. By sharing their insights, we believe our seniors benefit from a greater sense of purpose.

Medical Student

731 Improving Alternative Medical Education in Canadian Medical School Curriculum

Keerthana Kasi*; Tharaga Kugathasan; Ann Kalapurakal, MD; Niranjana Kasi

Within the past decade, as modern medicine has progressively expanded, our insight into the world of complementary and alternative medicine (CAM) has also broadened. Canadians, along with most of the modern world, have acquired a greater appreciation for medical practices outside the limitations of allopathic medicine. Physicians are often left incompetent about integrating medical treatment with observed CAM practices among the patients they treat, leading to patient non-compliance of medical management. A solution to improving physician-patient encounters in those who utilize CAM practices would be incorporating CAM education into the medical school curriculum. Research has shown 84% of physicians propose needing education about CAM in their training years to enhance communication within their patient interactions. Improving medical education by integrating CAM into the curriculum may also garner the interest of medical students, the future physicians of healthcare. Furthermore, in recognition of the cultural diversity among the patient population and the influence of traditional medical practice among different cultures, training physicians to be more sensitive towards alternative treatments increases physician-patient rapport furthering quality medical care and patient compliance. Methods: We propose to construct a Model to incorporate one mandatory week of Integrative medicine into the core curriculum. The curriculum, modeled after Chicago's Feinberg School of Medicine-Integrative Medicine workshop, would encompass didactics, experiential learning, clinical experiences, and patient cases. Students would also be given the option to further explore the field in their elective rotation months. Changes must be made now to educate young minds on the importance of CAM and the integration issues they may face in the future. Incorporating our Model of Complementary and Alternative Medicine focused clinical experience into our medical schools allows students to explore new interests and gain more knowledge about alternative medical practices.

Medical Student

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732 Does a Spaced Educational Intervention Encourage Case Completion in Residency? A preliminary comparison

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Context: Spaced education may encourage study behaviour in trainees. We found no studies of spaced education in the Family Medicine residency. **Objective:** Compare the degree of participation of residents from Université de Montréal (UdeM) and McGill in year one of an ongoing educational trial. **Setting:** UdeM and McGill Family Medicine residency programs. **Participants:** All first-year residents from UdeM and McGill in July 2017 were eligible. Consenting residents were offered a free copy of the Family Medicine Study Guide (the app), providing 75 clinical cases, beginning December 2017. **Intervention:** Spaced education, defined as self-learning through a mobile app that provides a weekly alert to a clinical case; followed by stimulated reflection on the answers residents provide to open-ended questions of knowledge about each case. We defined case completion as a yes/no response to the following question: Were you satisfied with your answers (for this case)? **Design:** Cluster randomized controlled trial. **Measures:** Consent rate among eligible residents. Proportion of residents who entered the study by inputting an ID number in the app (one-time sign-in). Number of these participants who did and did not complete at least one clinical case. **Results:** We consented 28% (44/160) of eligible residents at UdeM and 52% (50/97) at McGill. There was no difference between groups in age, gender or iPhone ownership. More McGill participants have signed in to use the application (48% versus 36%). At McGill, 50% of participating residents had not completed a single case in months one to 3. Similarly, the rate at UdeM was 49%. At the meeting, we will report the rate of case completion for each of the first nine months of the trial. **Conclusion:** At least one-third of participating residents from McGill and UdeM will use an app to prepare for their certification examination, in the first year of the family medicine residency.

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733 Improving Care for People With HIV: eConsult Manitoba: Work in progress

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Context: The Manitoba HIV Program (MHP) provides care to approximately 1300 people living with HIV (PLHIV) in Manitoba. MHP's main primary care site, Nine Circles, and specialty care services are centralized in Winnipeg. However, HIV has become a chronic manageable disease, and care is increasingly moving into the primary care setting. Our team has begun to implement and evaluate an electronic consultation service in Manitoba to address gaps in care for PLHIV and to improve access to specialty advice throughout Manitoba. **Objective:** To describe baseline wait times at MHP's primary care site and the early implementation of eConsult Manitoba. **Design:** Retrospective chart audit and quality improvement, technology adoption. **Setting and Participants:** Primary care providers (PCP) and specialty providers at participating clinics throughout Manitoba. **Intervention:** eConsult Manitoba is a secure web-based tool that allows PCPs to submit non-urgent, patient specific questions to a participating specialist. Specialists are requested to provide a response within seven days. eConsult Manitoba is modelled after Building Access to Specialists through Electronic Consultation (BASE™), established in Ontario's Champlain region in 2010. **Findings:** A baseline chart audit of 100 referrals sent between September and December 2014 was completed at Nine Circles. Median wait time for specialist advice was 111 days for non-urgent referrals. The most common specialties consulted were Gastroenterology, Hepatology, Ophthalmology and Psychiatry. eConsult Manitoba was launched at NCCHC on December 1, 2017. The volume of consults, services consulted and wait times for eConsult responses are being collected on an ongoing basis with data to be available at the time of FMF 2018. **Conclusions:** PLHIV and other Manitobans have long wait times for specialist advice. The implementation of eConsult Manitoba will improve access to care for PLHIV in Manitoba.