

# Program / Programme

10th Annual Family Medicine Research Day  
*10<sup>e</sup> Journée annuelle de recherche en  
médecine familiale*

WEDNESDAY November 12 *novembre* **MERCREDI**

Family Medicine  
**2014**  
en médecine familiale  
**QUÉBEC**



THE COLLEGE OF  
FAMILY PHYSICIANS  
OF CANADA



LE COLLÈGE DES  
MÉDECINS DE FAMILLE  
DU CANADA



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## On behalf of the Section of Researchers, welcome to Research Day at the Family Medicine Forum (FMF)!

We have an outstanding program for you to enjoy and look forward to your participation in the formal and informal program activities. This year's Planning Committee has taken advantage of the best that Quebec has to offer to make this our 10th Research Day the best yet.

Once again we are the beneficiaries of lots of hard work by the Research Day Planning Committee led by Richard Fleet. Rick has brought dynamic enthusiasm, innovation and a new perspective to the planning process. While his influence can be seen throughout the program, Research Day retains the solid foundation developed and refined over the last decade. Thank you to Rick, Wendy Norman, and Judith Belle Brown for the outstanding job you have done in planning this day. As always none of this would have happened without the commitment and dedication of our Section staff: Inese Grava-Gubins, Jamie Jensen, and Stephanie Fredo. Jamie has borne the lion's share of the execution of the plans for Research Day for many years now, putting in many hours of overtime. The College's Senior Research Advisor, Cheryl Levitt, has as always, been the magic glue that keeps us all on track.

We are very grateful to the many section members who reviewed abstracts, whose work has resulted in a robust and vibrant Research Day program. The rigorous review process developed for Research Day has resulted in an outstanding program.

You will notice changes to the program again this year. Building on our session with two CIHR Institute Directors last year, we are pleased to present "lightening" presentations from the Community Based Primary Health Care Teams. They are also part of the poster presentations providing the opportunity for others to engage with them and learn more about the 5-year programs of research.

Our Section of Researchers Council and Executive continue to work on the implementation of the ambitious Blueprint for Success. The importance of family medicine research for the future of our discipline and indeed the healthcare system cannot be overstated.

Finally, please join me to acknowledging Inese Grava-Gubins' 31 years of outstanding service to research at the CFPC. This is Inese's last Research Day as Director of Research at the CFPC. She will be retiring at the end of November.

I look forward to seeing you at the research sessions and events during FMF.

Sincerely,

Alan Katz, MBChB, CCFP, MSc, FCFP  
Chair, Section of Researchers



## Au nom de la Section des chercheurs, je vous souhaite la bienvenue à la Journée de la recherche, qui se tiendra dans le cadre du Forum en médecine familiale (FMF)!

Nous avons mis sur pied un excellent programme et avons bien hâte de participer avec vous aux activités formelles et informelles inscrites au programme. Cette année, le Comité de planification a profité de ce que Québec a de mieux à offrir afin de faire de cette 10<sup>e</sup> Journée de la recherche la meilleure qui soit.

Une fois de plus, nous avons tiré profit des heures de travail acharné du Comité de planification de la Journée de la recherche, sous la direction de Richard Fleet. Son enthousiasme, ses idées novatrices et une nouvelle perspective ont coloré le processus de planification. Même s'il a laissé son empreinte un peu partout dans le programme, la Journée de la recherche conserve sa base solide qui a évolué au cours de la dernière décennie. Nous remercions sincèrement Rick, Wendy Norman et Judith Belle Brown pour le travail extraordinaire accompli pour planifier cette journée. Comme toujours, cet événement ne serait pas possible sans l'engagement et le dévouement du personnel de notre Section : Inese Grava-Gubins, Jamie Jensen, et Stephanie Fredo. Depuis des années, Jamie se charge de la part de lion du travail de mise en œuvre des projets pour la Journée de la recherche, qui, soulignons-le, exige de nombreuses heures supplémentaires. Comme d'habitude, la conseillère principale en recherche du Collège, Cheryl Levitt, a fourni l'ingrédient magique qui nous a permis de garder le cap.

Nous remercions également les nombreux membres de la Section qui ont revu des résumés, ce qui nous a permis de concevoir un programme solide et intéressant. Notre processus d'évaluation rigoureux nous permet d'offrir un excellent programme.

Vous remarquerez que quelques changements ont été apportés au programme. En nous appuyant sur notre séance avec deux directeurs d'institut des IRSC de l'année dernière, nous avons prévu des présentations éclair de la part des équipes de soins primaires communautaires. Elles participeront également aux présentations d'affiches, ce qui permettra à tous de discuter avec ces personnes et d'en apprendre davantage sur les programmes de recherche de 5 ans.

Notre Conseil de la Section des chercheurs et nos dirigeants continuent de travailler à la mise en œuvre de notre Plan directeur ambitieux. L'importance de la recherche en médecine familiale pour l'avenir de notre discipline et pour l'ensemble du système de santé est essentielle.

Pour terminer, veuillez vous joindre à moi pour souligner les 31 années d'excellents services d'Inese Grava-Gubins au sein de la Section de la recherche du Collège. Il s'agira de la dernière Journée de la recherche d'Inese en tant que directrice du département au CMFC. Elle prendra sa retraite à la fin du mois de novembre.

Au plaisir de vous voir aux séances et aux activités que nous avons prévues pour le FMF.

Cordialement,

Alan Katz, MBChB, CCMF, MSc, FCMF  
Président, Section des chercheurs

## Welcome to Creativity and Innovation at Research Day 2014!

Welcome to this very special edition of Research Day!

In addition to celebrating the 10th Anniversary of Research Day, the Section of Researchers is on a mission to strengthen the link between research and family practice through creative and innovative thinking. Whether you are an established researcher, a research collaborator, a student, or a clinician with great ideas, you are in the right place to learn about this link. And, you are in for a historical research day!

Quebec is the birthplace of the world-renowned creative enterprise Cirque du Soleil. It is no surprise, then, that Research Day, with its theme of creativity and Innovation, begins with a plenary entitled "Getting into the mind of creative giants". Delivered by Pierre Petiot, Vice-president of Casting and Performance at Cirque du Soleil, and Patrice Aubertin, Director of Research and Teacher Training Program, National Circus School, and SSHRC Industrial Research Chair for Colleges in Circus Arts, it will help us answer important questions about a subject that lies at the core of our research endeavors: creativity.

Of course there is more; much more. You will enjoy numerous oral presentations and posters, which have been rigorously peer-reviewed by at least three independent researchers to ensure the delivery of only the highest quality research. These will include presentations by this year's Family Medicine Research Award recipients, presentation of the Top Four Oral Papers, and presentations by Canada's Community-Based Primary Healthcare Research Teams.

Once again, those oral and poster research abstracts that received the highest scores will be published in *Canadian Family Physician*. Congratulations if your abstract was accepted!

FMF's Research Stream will offer further discussions designed to highlight the relationship between research and family practice, including:

- **FMF Pearls:** this session will highlight the clinically important findings from the Top Four oral sessions originally presented on Research Day
- the **Dangerous Ideas Soapbox:** we invite colleagues from across Canada to present their most daring, creative, and even "dangerous" health care ideas
- **"Quebec innovations linking family medicine practice and research":** this session will highlight innovative research projects currently being carried out in Quebec.

On behalf of the FMF Research Committee of the Section of Researchers, we take great pleasure in welcoming you to Research Day, 2014, where we hope to fan the flames of your creative ideas!

Sincerely,

Richard Fleet MD, PhD, CCFP (EM)  
Chair, FMF Research Committee  
CFPC Section of Researchers



## Bienvenue dans l'univers créatif et innovateur de la Journée de la recherche 2014!

Bienvenue à cette édition spéciale de la Journée de la recherche!

En plus de célébrer le 10<sup>e</sup> anniversaire de la Journée de la recherche, la Section des chercheurs s'est donnée pour défi de renforcer la recherche et la médecine familiale par la créativité et l'innovation. Que vous soyez chercheur chevronné, collaborateur de recherche, étudiant ou clinicien aux idées audacieuses, vous êtes au

meilleur endroit pour en apprendre davantage sur ce lien. Et préparez-vous pour une journée historique!

C'est au Québec que le Cirque du Soleil, connu dans le monde entier pour sa créativité, a vu le jour. Il est donc logique que la Journée de la recherche, qui s'inscrit sous le thème de la créativité et de l'innovation, s'ouvre avec une plénière intitulée *Découvrir la pensée des géants de la créativité*. Grâce à la collaboration de Bernard Petiot, vice-président Casting et Performance au Cirque du Soleil, et de Patrice Aubertin, directeur de la recherche et de la formation en pédagogie à l'École nationale de cirque et titulaire de la Chaire de recherche industrielle dans les collèges du CRSH en arts du cirque, cette plénière nous aidera à saisir un important concept qui est au cœur même de nos activités de recherche : la créativité.

Et ce n'est qu'un début. Vous pourrez écouter une série de présentations – orales et d'affiches – rigoureusement examinées par des pairs (au moins trois chercheurs indépendants) dans le souci de présenter uniquement des recherches de la plus haute qualité. Ne manquez pas les présentations des lauréats du Prix de la recherche en médecine familiale 2014, les quatre meilleures présentations orales et les équipes de recherche sur les soins de santé primaires communautaires du Canada.

Encore une fois, les présentations orales et les résumés de recherche qui obtiendront la cote la plus élevée seront publiés dans *Le Médecin de famille canadien*. Nous vous félicitons si votre résumé a été sélectionné!

Le volet de la recherche du FMF propose d'autres discussions visant à faire ressortir la relation entre la recherche et la médecine familiale, notamment :

- **FMF Pearls :** cette séance souligne les conclusions d'importance clinique tirées des quatre meilleures séances présentées initialement pendant la Journée de la recherche
- **La Tribune aux idées dangereuses :** La Tribune aux idées dangereuses invite nos collègues des quatre coins du pays à présenter leurs idées les plus audacieuses en matière de soins de santé
- **« Des innovations québécoises tissent des liens entre l'exercice de médecine familiale et la recherche » :** Cette séance mettra en vedette les projets de recherche innovateurs actuellement en cours au Québec.

Au nom du Comité de recherche du FMF de la Section des chercheurs, je vous souhaite la bienvenue à la Journée de la recherche 2014, où nous espérons de tout cœur attiser vos idées créatrices!

Cordialement,

Richard Fleet MD, PhD, CCMF(MU)  
Président, Comité de recherche du FMF  
Section des chercheurs du CMFC



**10<sup>th</sup> Annual Family Medicine Research Day****10<sup>e</sup> Journée annuelle de recherche en médecine familiale**

07:30-08:30	FOYER 2000	BREAKFAST / PETIT DÉJEUNER		
08:30-08:45	2000C	WELCOME / BIENVENUE – 2000C		
08:45-09:45	2000C	PLENARY / PLÉNIÈRE – W77152 On Creativity and Innovation: Getting into the mind of creative giants		
09:45-10:00	2000C	Introduction to Posters / Introduction des affiches		
10:00-10:45	2000B	BREAK AND POSTER VIEWING / PAUSE ET VISITE DES AFFICHES		
10:45-11:45	2000C	Presentation by the Recipient of the CFPC Outstanding Family Medicine Research Article <i>Présentation par le récipiendaire du Prix du CMFC pour un article exceptionnel de recherche en médecine familiale</i>		
		Presentation by the Recipient of the CFP Best Original Research Article <i>Présentation par le récipiendaire du Prix du MFC pour le meilleur article de recherche originale</i>		
		Presentations by the Recipients of the Research Awards for Family Medicine Residents <i>Présentation par les récipiendaires des Prix de recherche pour les résidents en médecine familiale</i>		
11:45-12:15	2000C	LUNCH / DÎNER		
12:15-12:45	2000C	Section of Researchers Chair's Report / Rapport du président de la Section des chercheurs		
12:45-13:15		2014 Family Medicine Researcher of the Year Award Presentation <i>Remise du prix du Chercheur de l'année en médecine familiale pour 2014</i>		
13:15-13:20		Introduction to Oral Presentations / Introduction des présentations orales		
13:30-16:10	FREE STANDING PAPER (ORAL) PRESENTATIONS / PRÉSENTATIONS LIBRES (ORALES)			
		205A	205B	205C
13:30-13:40		W62732 Quels gestes cliniques les professionnels considèrent-ils comme de l'aide médicale à mourir?	W62685 An RCT of Supported Self-Care for Depressive Symptoms in Association With Chronic Physical Conditions	W63172 Development of a Clinical Decision Support Tool for the Primary Prevention of Cardiovascular Disease
13:45-13:55		W62632 Évaluation de l'implantation d'un système de soins en HTA dans les GMF de la Montérégie	W63402 Screening for Red Flags in Patients With MDD During Follow-up Visits in a Group Family Practice	CANCELLED
14:00-14:10		W62633 Effets sur les pratiques cliniques d'un système de soins en HTA dans les GMF de la Montérégie	W57404 The Rasouli Decision: Is the withdrawal of life-sustaining measures considered treatment?	W62122 Is the Recommended Use Requisition Acceptable for Bone Mineral Density Testing in Clinical Practice?
14:15-14:25		W63318 Types d'avortements pratiqués au Québec et dans le reste du Canada : Une étude nationale	W62620 A Screening Toolkit for Early Identification of Mental Health Issues in Seniors	W60157 Prognostic Value of Residential Hospice Admission Priority Tool Compared to the Palliative Prognostic Index
14:30-14:40		W63310 Qui pratique les avortements chirurgicaux au Québec et dans le reste du Canada? Une étude nationale	W63212 Discussing End-of-Life Issues in a New Model of Long-Term Care: A qualitative study	W62697 Addressing Medication Discrepancies at the Hospital to Community Transition Through a Community-Based Medication Reconciliation System
14:45-14:55		CANCELLED	W63303 What Medications Are Used for Medical Aid in Dying? A scoping review	W62640 Drug Samples Utilization in Family Medicine Teaching Units of the Québec-1 PBRN
15:00-15:15	BREAK / PAUSE			
15:15-15:25		W59727 Évaluation d'un atelier de formation sur l'utilisation du dossier médical électronique par les médecins de famille	W63401 Impact of the 2012 Ontario Cervical Screening Guidelines on Sexually Transmitted Infection Screening	W59451 Impact of a 3-Hour Workshop on Self-Perceived Abilities and Enjoyment of Dementia Care
15:30-15:40		W63204 Perception des médecins sur les facteurs d'adoption de la prescription électronique au Québec	W57104 Equity in Colorectal Cancer Screening: Factors impacting family physician preferences and behaviours	W63257 Defining a Typology of the Specialist: Primary care interface using administrative data
15:45-15:55		M62408 Gestion des échantillons de médicaments à l'Unité de médecine de famille Saint-François d'Assise	W60597 Family Physician Perception of the Usefulness of an Intervention to Improve Continuity of Cancer Care	W60794 Intimate Partner Violence: Assessment of family physicians' awareness, preparedness, and approaches
16:00-16:10				
16:00-17:00	2000C	W77460 Meet Canada's Community-Based Primary Health Care Research Teams!		

 Top 4 Oral Presentations / Les 4 meilleures présentations orales

The language of the session title indicates the language in which the session will be presented. For those sessions with simultaneous interpretation, this symbol will appear beside that title. 🎧  
 Les séances seront présentées dans la langue du titre mentionné. Le symbole des écouteurs indique que l'interprétation simultanée sera offerte. 🎧

**10:45-11:00 • W77453** Characteristics of Primary Care Practices Associated with High Quality of Care

**11:00-11:15 • W77454** Adoption of the Chronic Care Model to Improve HIV Care in a Marginalized, Largely Aboriginal Population

**11:15-11:30 • W77455** Antiviral Therapy for Genital Herpes in the Prevention of HIV Transmission

**11:30-11:45 • W77457** The Impact of Toronto Bicycle Lanes on Cyclist-Motor Vehicle Collisions

**12:45-13:15 • W77534** From Research to Practice: A trilogy

206A	206B	2101	2104AB
<b>W62705</b> Caring and Communicating in Critical Cases: A resource for rural physicians	<b>W67400</b> Implementation of the Expanded Chronic Care Model for the Management of Diabetes in a Community Clinic		
<b>W62645</b> Quality of Work Life of Rural Emergency Department Nurses and Physicians: A pilot study	<b>W60143</b> The Neighbourhood Effect of Immigration on an Urban Diabetic Population		
<b>W60567</b> Portrait of Rural Emergency Departments and Utilization of Emergency Management Guide in Québec	<b>W63286</b> Where Is Abortion Service Provided in Canada?: Results of a national survey		
<b>W60577</b> Rural Versus Urban In-Hospital Mortality Following Stroke in Canada	<b>W57353</b> Shifting Tides in the Emigration Pattern of Canadian Physicians to the United States		
<b>W60354</b> A Practice Audit Can Improve Primary Care Provider Knowledge, Attitudes, and Behaviours Towards Chronic Hepatitis B: Results of a nationwide study	<b>W62768</b> Effect of Intracervical Xylocaine Prior to Intrauterine System Insertion in Primary Care		
<b>W55579</b> Profession and Conflict of Interest of Contributors to Canadian Primary Care Guidelines	<b>W57610</b> Perspectives About Spirometry and Knowledge of Spirometric Diagnostic Criteria Among Primary Care Physicians		
<b>W63379</b> Impact of Patient's Online Access to Lab Results: Primary care utilization and patient experience	<b>W62835</b> Case Finding and Managing Chronic Obstructive Pulmonary Disease	<b>W57662</b> Interprofessional Learning Using Persons With Developmental Disability as Simulated Patients	<b>W63039</b> The McGill MSc Program in Family Medicine: Who are our students and where do they end up?
<b>W62699</b> How Do Patients Experience Periodic Health Exams?	<b>W59802</b> Addressing Childhood and Youth Obesity in the Primary Care Setting: Are we meeting the challenge?	<b>W63426</b> Clinical Supervisors' Perceived Training Needs to Deliver Elder Care and Teach It to Their Trainees	<b>W63424</b> Resident Perceptions of the Utility of a Formative Academic Benchmarking Examination
<b>W63231</b> How Prevalent Are "Meet and Greet" Screening Appointments for New Patients? Implications for Access Equity	<b>W63382</b> In the Loop: Primary care providers' role in newborn screening for cystic fibrosis	<b>W63199</b> What Procedural Skills Do Clerks Perform in Family Medicine Clerkships? A CERA Survey	<b>W58941</b> Timeliness of Encounter Note Review by Preceptors in Academic Family Medicine Teaching Clinics
	<b>W62771</b> Bereaved Parents Break the Silence of Stillbirth: A community-based participatory research project	<b>W62854</b> The Impact of Cultural Differences on Family Medicine Residency Education: Validating a new assessment instrument	<b>W56524</b> The "Nightmares" Course: An effective simulation-based acute care training method for family medicine residents

**10<sup>th</sup> ANNUAL FAMILY MEDICINE RESEARCH DAY**  
**10<sup>e</sup> JOURNÉE ANNUELLE DE LA RECHERCHE EN MÉDECINE FAMILIALE**

07:30-08:30	<b>Breakfast / Petit déjeuner</b> ROOM / SALLE : 2000 FOYER – QCCC / CCQ
08:30-08:45	<b>Welcome / Bienvenue</b> ROOM / SALLE : 2000C – QCCC / CCQ
W77152 08:45-09:45	<b>Section of Researchers Plenary / Plénière de la Section des chercheurs</b> <b>On Creativity and Innovation ... Getting into the mind of creative giants</b> <i>Bernard Petiot, Cirque du Soleil's Vice-President, Casting and Performance, and Patrice Aubertin, Director of Research and Teacher Training Program, National Circus School, and SSHRC Industrial Research Chair for Colleges in Circus Arts</i> ROOM / SALLE : 2000C – QCCC / CCQ
09:45-10:00	<b>Introduction to Posters / Introduction des affiches</b>
10:00-10:45	<b>Break and Poster Viewing / Pause et visite des affiches</b> ROOM / SALLE : 2000B – QCCC / CCQ
<b>Presentation by the Recipient of the CFPC Outstanding Family Medicine Research Article</b> <i>Présentation par le récipiendaire du Prix du CMFC pour un article exceptionnel de recherche en médecine familiale</i>	
W77453 10:45-11:00	<b>Characteristics of Primary Care Practices Associated With High Quality of Care</b> <i>Marie-Dominique Beaulieu, MD, MSc; Jeannie Haggerty, PhD; Pierre Tousignant, MD, MSc; Janet Barnsley, PhD; William Hogg, MD, MSc; Robert Geneau, PhD; Éveline Hudon, MD, MSc; Réjean Duplain, MD; Jean-Louis Denis, PhD; Lucie Bonin, MD, MSc; Claudio Del Grande, MSc; Natalya Dragieva, MSc</i> ROOM / SALLE : 2000C – QCCC / CCQ
<b>Presentation by the Recipient of the CFP Best Original Research Article</b> <i>Présentation par le récipiendaire du Prix du MFC pour le meilleur article de recherche originale</i>	
W77454 11:00-11:15	<b>Adoption of the Chronic Care Model to Improve HIV Care in a Marginalized, Largely Aboriginal Population</b> <i>David Tu, MD, CCFP; Patricia Belda, MSc, MD, CCFP; Doreen Littlejohn, RN; Jeanette Somlak Pedersen; Juan Valle-Rivera; Mark Tyndall, MD, ScD, FRCPC</i> ROOM / SALLE : 2000C – QCCC / CCQ
<b>Presentation by the Recipient(s) of the Research Awards for Family Medicine Residents</b> <i>Présentation par les récipiendaires des Prix de recherche pour les résidents en médecine familiale</i>	
W77455 11:15-11:30	<b>Antiviral Therapy for Genital Herpes in the Prevention of HIV Transmission</b> <i>Carrie Ching, MD, CCFP, Vancouver, BC; Lindsay Stokvis, MD, CCFP, Vancouver, BC</i> ROOM / SALLE : 2000C – QCCC / CCQ
W77457 11:30-11:45	<b>The Impact of Toronto Bicycle Lanes on Cyclist-Motor Vehicle Collisions</b> <i>Jennifer Loo, MD, CCFP, Toronto, ON; Deepit Bhatia; Sarah Richmond; Devon Williams; Ron Buliung; Andrew Howard; Chris Cavacuiti; Rick Glazier</i> ROOM / SALLE : 2000C – QCCC / CCQ
11:45-12:15 12:15-12:45	<b>Lunch / Dîner</b> <b>Section of Researchers Chair's Report / Rapport du président de la Section des chercheurs</b> ROOM / SALLE : 2000C – QCCC / CCQ
<b>2014 Family Medicine Researcher of the Year Award Presentation</b> <i>Remise du prix du Chercheur de l'année en médecine familiale pour 2014</i>	
W77534 12:45-13:15	<b>From Research to Practice: A trilogy</b> ROOM / SALLE : 2000C – QCCC / CCQ <i>Michel Labrecque, MD, PhD, CCM FCMF, Québec, QC</i>
13:15-13:20	<b>Introduction to Oral Presentations / Introduction aux présentations orales</b>

## Top 4 Oral Presentations / Les 4 meilleures présentations orales

- W62732** **Quels gestes cliniques les professionnels considèrent-ils comme de l'aide médicale à mourir?**  
**13:30-13:40** *Claude Arsenault, MD, CCMF, Sherbrooke, QC; Antoine Boivin, MD, PhD, Montréal, QC; Isabelle Marcoux, PhD, Ottawa, ON; Mélanie Toupin, MD, Montréal, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W62685** **An RCT of Supported Self-Care for Depressive Symptoms in Association With Chronic Physical Conditions**  
**13:30-13:40** *Mark Yaffe, MDCM, MCISc, CCFP, FCFP, Montreal, QC; Jane McCusker, PhD, Montreal, QC; Martin Cole, MD, FRCPC, Montreal, QC; Maida Sewitch, PhD, Montreal, QC; Tamara Sussman, PhD, Montreal, QC; Erin Strumpf, PhD, Montreal, QC; Antonio Ciampi, PhD, Montreal, QC; Eric Belzile, MSc, Montreal, QC*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W63172** **Development of a Clinical Decision Support Tool for the Primary Prevention of Cardiovascular Disease**  
**13:30-13:40** *Anton Rabien, MD, CCFP, Sooke, BC; Morgan Price, MD, PhD, CCFP, Victoria, BC*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W57662** **Interprofessional Learning Using Persons With Developmental Disability as Simulated Patients**  
**15:15-15:25** *Brian Hennen, MD, MA, CCFP, FCFP, FRCGP, Dartmouth, NS; Elizabeth Kay-Raining Bird, PhD, Halifax, NS; Paula Hutchinson, PhD, Halifax, NS; Anne Godden-Webster, MSc, Halifax, NS; Karen McNeil, MD, CCFP, FCFP, Halifax, NS; Sandra Witherbee, Halifax, NS; Judy Macdonald, PhD, Halifax, NS; Sarah Shea, MD, FRCPS, Halifax, NS; Andrea Rideout, MD, CCFP, FCFP, Halifax, NS; Dianne Mackenzie, MSc, Halifax, NS; Lisa Doucette, BScN, Yarmouth, NS; Bruce Holmes, Halifax, NS*  
**ROOM / SALLE : 2101 – QCCC / CCQ**

## Free Standing Paper (Oral) Presentations / Présentations libres (orales)

- W62705** **Caring and Communicating in Critical Cases: A resource for rural physicians**  
**13:30-13:40** *Antonia Johnson, MBA; Lindsey Campbell, MD; M. Firdaus M. Mydeen, MD, CCFP*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W67400** **Implementation of the Expanded Chronic Care Model for the Management of Diabetes in a Community Clinic**  
**13:30-13:40** *Juan Soto, MD, CCFP, Spruce Grove, AB; Cecile Pasino, Ph*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W62632** **Évaluation de l'implantation d'un système de soins en HTA dans les GMF de la Montérégie**  
**13:45-13:55** *Stéphane Groulx, MD, FCMF, Longueuil, QC; Jean Beaudry, MA Psy, Longueuil, QC; Yves Filion, DtP, MBA, Montréal, QC; Julie Dufort, MD, MSc, FRCPC, Longueuil, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W63402** **Screening for Red Flags in Patients With MDD During Follow-up Visits in a Group Family Practice**  
**13:45-13:55** *Setorme Tsikata, MBChB, MSc, CCFP, Edmonton, AB; Justice Asomaning, PhD, Edmonton, AB; Zahra Fatehi-Hassanabad, MD, PhD, Edmonton, AB*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W62645** **Quality of Work Life of Rural Emergency Department Nurses and Physicians: A pilot study**  
**13:45-13:55** *Isabelle Bragard, PhD, Belgique; Gilles Dupuis, PhD, Montréal, QC; Patrick Archambault, MD, MSc, FRCPC, CSPQ, Lévis, QC; France Légaré, MD, PhD, CCFP, Québec, QC; Jean-Marc Chauny, MD, CSPQ, MSc, Montréal, QC; Jean-Frédéric Lévesque, MD, PhD, NSW, Australia; Mathieu Ouimet, PhD, Québec, QC; Julien Poitras, MD, CSPQ, Lévis, QC; Richard Fleet, MD, PhD, CCMF(MU), Lévis, QC*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W60143** **The Neighbourhood Effect of Immigration on an Urban Diabetic Population**  
**13:45-13:55** *Alain Vanasse, MD, PhD, Sherbrooke, QC; Maria Gabriela Orzanco, PhD, Montréal, QC; Patrick Bergeron, PhD, Sherbrooke, QC; Alan Cohen, PhD, Sherbrooke, QC; Théophile Niyonsenga, PhD, Adelaide, Australia; Denis Leroux, PhD, Trois-Rivières, QC; Lyne Cloutier, PhD, Trois-Rivières, QC; Shabnam Asghari, MD, PhD, St. John's, NL; Josiane Courteau, PhD, Sherbrooke, QC*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W62633** **Effets sur les pratiques cliniques d'un système de soins en HTA dans les GMF de la Montérégie**  
**14:00-14:10** *Stéphane Groulx, MD, FCMF, Longueuil, QC; Jean Beaudry, MA Psy, Longueuil, QC; Yves Filion, DtP, MBA, Montréal, QC; Julie Dufort, MD, MSc, FRCPC, Longueuil, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W57404** **The Rasouli Decision: Is the withdrawal of life-sustaining measures considered treatment?**  
**14:00-14:10** *Yatri Patel, MD, Masters of Studies in Law(c); Robert Solomon, LLB, LLM*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W62122** **Is the Recommended Use Requisition Acceptable for Bone Mineral Density Testing in Clinical Practice?**  
**14:00-14:10** *Rokeni (Sumi) Anantharajah, MD, Toronto, ON; Susana Huang, MD, Toronto, ON; Susan Jaglal, PhD, Toronto, ON; Sarah Munce, PhD, Toronto, ON; Sonya Allin, PhD, Toronto, ON; Tarik Bereket, MA, Toronto, ON; Debra A. Butt, MD, MSc, CCFP, FCFP, Toronto, ON*  
**ROOM / SALLE : 205C – QCCC / CCQ**

- W60567**  
**14:00-14:10**  
**Portrait of Rural Emergency Departments and Utilization of Emergency Management Guide in Québec**  
*Richard Fleet, MD, PhD, CCFP (EM), Lévis, QC; Patrick Archambault, MD, MSc, FRCPC(c), CSPQ, Lévis, QC; France Légaré, MD, PhD, CCFP, Québec, QC; Jean-Marc Chauny, MD, CSPQ, MSc, Montréal, QC; Jean-Frédéric Lévesque, MD, PhD, New South Wales, Australia; Mathieu Ouimet, PhD, Québec, QC; Gilles Dupuis, PhD, Montréal, QC; Jeannie Haggerty, PhD, Montréal, QC; Julien Poitras, MD, CSPQ, Lévis, QC; Alain Tanguay, MD, Lévis, QC; Geneviève Simard-Racine, MD, Amqui, QC; Josée Gauthier, MSc, Rimouski, QC*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W63286**  
**14:00-14:10**  
**Where Is Abortion Service Provided in Canada?: Results of a national survey**  
*Wendy V. Norman, MD, MHSc, Vancouver, BC; Edith Guilbert, MD, MSc, Québec, QC; Christopher Okpaleke, MBBSc, MPH(c), Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, IL; Maureen Paul MD, MPH, Boston, Mass; Katharine O'Connell White, MD, MPH, Tufts University School of Medicine*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63318**  
**14:15-14:25**  
**Types d'avortements pratiqués au Québec et dans le reste du Canada : Une étude nationale**  
*Edith Guilbert, MD, MSc, Québec, QC; Heidi E. Jones, PhD, MPH, NY; Christopher Okpaleke, MBBSc, MPH (cand.) Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, Ill; Maureen Paul, MD, MPH, Boston, MA; Katharine O'Connell White, MD, MPH, Springfield, MA; Wendy V. Norman, MD, MHSc, CCFP, FCFP, Vancouver, BC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W62620**  
**14:15-14:25**  
**A Screening Toolkit for Early Identification of Mental Health Issues in Seniors**  
*Bonnie Dobbs, PhD, Edmonton, AB; Diane McNeil, PhD, Edmonton, AB; Anita Saini, MC, Edmonton, AB*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W60157**  
**14:15-14:25**  
**Prognostic Value of Residential Hospice Admission Priority Tool Compared to the Palliative Prognostic Index**  
*Leslie Morrison, MD, Barrie, ON; Kelly Hubbard, RN, BScN, CHPCN(C), Barrie, ON; Linda Johnston, RN, Barrie, ON; Erin Ueffing, HBHSc, MHSc; Brian Morris, MD, CCFP, Barrie, ON; Anwar Parbtani, PhD, MD, CCFP, Barrie, ON*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W60577**  
**14:15-14:25**  
**Rural Versus Urban In-Hospital Mortality Following Stroke in Canada**  
*Richard Fleet, MD, PhD, CCMF(MU), Lévis, QC; Sylvain Bussièrès, PhD, Québec, QC; Fatoumata-Korika Toukara, MSc, Québec, QC; Gilles Dupuis, PhD, Montréal, QC; Patrick Archambault, MD, MSc, FRCPC, CSPO, Lévis, QC; Julien Poitras, MD, CSPQ, Lévis, QC*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W57353**  
**14:15-14:25**  
**Shifting Tides in the Emigration Pattern of Canadian Physicians to the United States**  
*Thomas Freeman, MD, CCFP,FCFP; Stephen Petterson, PhD; Andrew Bazemore, MD; Sean Finnegan, MS*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63310**  
**14:30-14:40**  
**Qui pratique les avortements chirurgicaux au Québec et dans le reste du Canada? Une étude nationale**  
*Edith Guilbert, MD, MSc, Québec, QC; Heidi E. Jones, PhD, MPH, NY, USA; Christopher Okpaleke, MBBSc, MPH (cand.), Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, Ill; Maureen Paul, MD, MPH, Boston, MA; Katharine O'Connell White, MD, MPH, Springfield, MA; Wendy Norman, MD, MHSc, CCFP, FCFP, Vancouver, BC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W63212**  
**14:30-14:40**  
**Discussing End-of-Life Issues in a New Model of Long-Term Care: A qualitative study**  
*Raphaëlle Thériault, MD, CCFP, Halifax, NS; Emily Gard Marshall, PhD, Halifax, NS; Fred Burge, MD, FCFP, MSc, Halifax, NS; Barry Clarke, MD, CCFP, COE, Halifax, NS*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W62697**  
**14:30-14:40**  
**Addressing Medication Discrepancies at the Hospital to Community Transition Through a Community-Based Medication Reconciliation System**  
*Allan L. Bailey, MD, CCFP, Edmonton, AB; Kris McKeown, PhD, Spruce Grove, AB; Grace Moe, MSc, PCMH-CCE, Spruce Grove, AB*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W60354**  
**14:30-14:40**  
**A Practice Audit Can Improve Primary Care Provider Knowledge, Attitudes, and Behaviours Towards Chronic Hepatitis B: Results of a nationwide study**  
*Hemant Shah, MD, MScCH, HPTE, Toronto, ON; Jean Palmart, Advisory Physicians, BC*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W62768**  
**14:30-14:40**  
**Effect of Intracervical Xylocaine Prior to Intrauterine System Insertion in Primary Care**  
*Ainsley Moore, MD, MSc, CFPC; Cara Sterling, HBSc, MD; Kayla Vale, MD*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63303**  
**14:45-14:55**  
**What Medications Are Used for Medical Aid in Dying? A scoping review**  
*Antoine Boivin, MD, PhD, Montréal, QC; Yi-Sheng Chao, PhD, Postdoctoral student, Longueuil, QC; Genevieve Garnon, PhD(c), Longueuil, QC; Isabelle Marcoux, PhD, Ottawa, ON*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W62640**  
**14:45-14:55**  
**Drug Samples Utilization in Family Medicine Teaching Units of the Québec-1 PBRN**  
*Marie-Thérèse Lussier, MD, CCFP, FCFP, Montréal, QC; Michel Labrecque, MD, PhD, CCFP, FCFP, Québec, QC; Andrea Lessard, MD, MSc, CCFP, Chicoutimi, QC; Pierre Pluye, MD, PhD, Montréal, QC; Roland Grad, MD, MSc, CCFP, Montréal, QC; Caroline Rhéaume, MD, PhD, FFPC, Québec, QC; Fatoumata Binta Diallo, PhD, Laval, QC; Tarek Bouhali, PhD, Chicoutimi, QC; Justin Gagnon, MA, Laval, QC; Edith Omon, MD, Montréal, QC*  
**ROOM / SALLE : 205C – QCCC / CCQ**



- W55579**      **Profession and Conflict of Interest of Contributors to Canadian Primary Care Guidelines**  
**14:45-14:55**      *G. Michael Allan, MD, CCFP; Michael R. Kolber, MD, CCFP, MSc; Christina Korownyk, MD, CCFP; Roni Kraut; Aven Crawshaw; Ben Vandermeer*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W57610**      **Perspectives About Spirometry and Knowledge of Spirometric Diagnostic Criteria Among Primary Care Physicians**  
**14:45-14:55**      *Anthony D’Urzo, MD, MSc, BPHE, CCFP, FCFP, Toronto, ON; Prateek Sehgal, MD(c), Toronto, ON*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W59727**      **Évaluation d’un atelier de formation sur l’utilisation du dossier médical électronique par les médecins de famille**  
**15:15-15:25**      *Marie-Pierre Gagnon, PhD, Québec, QC; Jean-Paul Fortin, MD, CSPQ, MPH, MBA, Québec, QC; Réjean Roy, MSc, Montréal, QC; Liette D’Amours, BA, Montréal, QC; Marie Desmartis, MA, Québec, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W63401**      **Impact of the 2012 Ontario Cervical Screening Guidelines on Sexually Transmitted Infection Screening**  
**15:15-15:25**      *Tali Bogler, MD, Toronto, ON; Allison Farber, MD, Toronto, ON; Sheila Wijayasinghe, MD, CCFP, Toronto, ON; Richard Glazier, MD, MPH, CCFP, Toronto, ON; Charlie Guiang, MD, CCFP, Toronto, ON*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W59451**      **Impact of a 3-Hour Workshop on Self-Perceived Abilities and Enjoyment of Dementia Care**  
**15:15-15:25**      *Linda Lee, MD, MClSc(FM), CCFP, FCFP, Kitchener, ON; Loretta Hillier, MA, London, ON; Wayne Weston, MD, CCFP, FCFP, London, ON*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W63379**      **Impact of Patient’s Online Access to Lab Results: Primary care utilization and patient experience**  
**15:15-15:25**      *Chad A. Leaver, BA, MSc, MBA(c); Simon Hagens, MBA*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W62835**      **Case Finding and Managing Chronic Obstructive Pulmonary Disease**  
**15:15-15:25**      *Cathy Faulds, MD, CCFP, FCFP, ABPHM, London, ON; Emily Stoll, BSc, London, ON; Adriana Pietrzak, BMSc, London, ON*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63039**      **The McGill MSc Program in Family Medicine: Who are our students and where do they end up?**  
**15:15-15:25**      *Jamie DeMore, MA, Montreal, QC; Gillian Bartlett, PhD, Montreal, QC; Alexandra Dimmer, MSc (cand.), Montreal, QC; Alexandra Fletcher, MSc (cand.), Montreal, QC; Roland Grad, MD, CM, CCFP, MSc, Montreal, QC; Peter Nugus, PhD, Montreal, QC; Pierre Pluye, MD, PhD, Montreal, QC; Charo Rodríguez, MD, PhD; Jon Salsberg, MA, PhD (cand.); Pierre-Paul Tellier, MD, CM, CCFP; Isabelle Vedel, MD, PhD; Mark Ware, MBBS, CCFP, FCFP, MSc; Mark Yaffe, BA, MDCM, CCFP, MClSc, Montreal, QC*  
**ROOM / SALLE : 2104AB – QCCC / CCQ**
- W63204**      **Perception des médecins sur les facteurs d’adoption de la prescription électronique au Québec**  
**15:30-15:40**      *Julie Payne-Gagnon, MA, Québec, QC; Marie-Pierre Gagnon, PhD, Québec, QC; Claude Sicotte, PhD, Montréal, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W57104**      **Equity in Colorectal Cancer Screening: Factors impacting family physician preferences and behaviours**  
**15:30-15:40**      *Sandy Buchman, MD, CCFP, FCFP; Richard Glazier, MD, CCFP, FCFP, MPH; Linda Rozmovits, DPhil*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W63257**      **Defining a Typology of the Specialist: Primary care interface using administrative data**  
**15:30-15:40**      *Claire Kendall, MD, MSc, Ottawa, ON; Jaime Younger, PhD, Ottawa, ON; Monica Taljaard, PhD, Ottawa, ON; William Hogg, BSc(Hon), MSc, MClSc, MD CM, CCFP, FCFP, Ottawa, ON; Richard H. Glazier, MD, MPH, Toronto, ON; Douglas G. Manuel, MD, MSc, FRCPC, Ottawa, ON*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W62699**      **How Do Patients Experience Periodic Health Exams?**  
**15:30-15:40**      *Aileen Roman, MD, Montréal, QC; Daniella Guindi, MD, Montréal, QC; Svetlana Puzhko, MD, MSc, Montréal, QC; Mark Yaffe, MD CM, MClSc, CCFP, FCFP, Montréal, QC*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W59802**      **Addressing Childhood and Youth Obesity in the Primary Care Setting: Are we meeting the challenge?**  
**15:30-15:40**      *Matthew Orava, MD, MSc, BScH; Anwar Parbtani, PhD, MD, CCFP, Barrie, ON*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63426**      **Clinical Supervisors’ Perceived Training Needs to Deliver Elder Care and Teach It to Their Trainees**  
**1530-1540**      *Anik Giguere, PhD, Quebec, QC; Françoise Proust, PhD, Quebec, QC; Philippe Karazivan, MD, MAEd, Montreal, QC; Bernard Martineau, MD, MA, DPES, Sherbrooke, QC; Charo Rodriguez, MD, PhD, Montreal, QC; Marie Meudec, PhD, Quebec, QC; Michèle Morin, MD, Quebec, QC; France Légaré, MD, PhD, Quebec, QC; Paule Lebel, MD, Montreal, QC*  
**ROOM / SALLE : 2101 – QCCC / CCQ**
- W63424**      **Resident Perceptions of the Utility of a Formative Academic Benchmarking Examination**  
**15:30-15:40**      *John Chmelicek, MD, CCFP, FAFAP, FAWM, Edmonton, AB; Denise Campbell-Scherer, MD, PhD, CCFP, Edmonton, AB; Tanya Barber, MA, Edmonton, AB; Shelley Ross, PhD, Edmonton, AB*  
**ROOM / SALLE : 2104AB – QCCC / CCQ**

- M62408 15:45-15:55** **Gestion des échantillons de médicaments à l'Unité de médecine de famille Saint-François d'Assise**  
*Chislaine Tre, MSc, PhD, Québec, QC; Ulrich Ifoko, MD, CCMF, Montréal, QC; Marie-Ève Robert; Michel Labrecque, MD, CCMF, FCMF, Québec, QC*  
**ROOM / SALLE : 205A – QCCC / CCQ**
- W60597 15:45-15:55** **Family Physician Perception of the Usefulness of an Intervention to Improve Continuity of Cancer Care**  
*Michele Aubin, MD, PhD, FCFP, CCFP; Québec, QC; Lucie Vézina, MA, Québec, QC; René Verreault, MD, PhD, FCFP, CCFP, Québec, QC; Lise Fillion, RN, PhD, Québec, QC; Éveline Hudon, MD, MA, Montréal, QC; Sébastien Simard, PhD, Québec, QC; André Tourigny, MD, MPH, Québec, QC; Serge Dumont, PhD, Québec, QC; Serge Daneault, MD, MA, Montréal, QC; Yves Lacasse, MD, FRCPC, MSc, Québec, QC; Audrey Samson, MA, Québec, QC*  
**ROOM / SALLE : 205B – QCCC / CCQ**
- W60794 15:45-15:55** **Intimate Partner Violence: Assessment of family physicians' awareness, preparedness, and approaches**  
*C. Gall, BMSc (Hons), MD; J. Shaw, BSc (Hons), MSc, MD; E. Kiss, MD, CCFP; R. Raiciu, BA (Hons), MSc; A. Parbtani, PhD, MD, CCFP*  
**ROOM / SALLE : 205C – QCCC / CCQ**
- W63231 15:45-15:55** **How Prevalent Are "Meet and Greet" Screening Appointments for New Patients? Implications for Access Equity**  
*Emily Gard Marshall, PhD, Halifax, NS; Beverley Lawson, MSc, Halifax, NS; Judy Chisholm, BN, MN, Halifax, NS; Richard Gibson, MD, Halifax, NS; Nirupa Varatharasan, MSc, Halifax, NS; Frederick Burge, MD, MSc, FCFP*  
**ROOM / SALLE : 206A – QCCC / CCQ**
- W63382 15:45-15:55** **In the Loop: Primary care providers' role in newborn screening for cystic fibrosis**  
*June C. Carroll, MD, CCFP, Toronto, ON; Robin Z. Hayeems, PhD, Toronto, ON; Fiona A. Miller, PhD, Toronto, ON; Carolyn J. Barg, MSc, Toronto, ON; Yvonne Bombard, PhD, Toronto, ON; Peter Durie, MD, Toronto, ON; Pranesh Chakraborty, MD, Ottawa, ON; Beth K. Potter, PhD, Toronto, ON; Jessica P. Bytautas, BA, Toronto, ON; Karen Tam, ScM, Toronto, ON; Louise Taylor, NP, Toronto, ON; Elizabeth Kerr, PhD, Toronto, ON; Christine Davies, ScM, Ottawa, ON; Jennifer Milburn, MHA, Ottawa, ON; Katherine Keenan, BSc, Toronto, ON; Felix Ratjen, MD, Toronto, ON; Astrid Guttman, MD, Toronto, ON*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W63199 15:45-15:55** **What Procedural Skills Do Clerks Perform in Family Medicine Clerkships? A CERA Survey**  
*Martina Kelly, MBBCh, MA, CCFP, Calgary, AB; Lara Nixon, MD, CCFP, FCFP, Calgary, AB; Kelly Everard, PhD, Saint Louis, MI; Alec Chessman, MD, SC*  
**ROOM / SALLE : 2101 – QCCC / CCQ**
- W58941 15:45-15:55** **Timeliness of Encounter Note Review by Preceptors in Academic Family Medicine Teaching Clinics**  
*Carol Styles, RN, BN, MPH; Maria Krahn, BSc(Hon)*  
**ROOM / SALLE : 2104AB – QCCC / CCQ**
- W62771 16:00-16:10** **Bereaved Parents Break the Silence of Stillbirth: A community-based participatory research project**  
*Lynn Farrales, MSc, MD, CCFP, Vancouver, BC; Jennifer Douglas, PhD, Vancouver, BC; Jaime Ascher, BSc, Vancouver, BC; John Nanson, MEd, Vancouver, BC; May Farrales, PhD(cand.), Vancouver, BC; Andrea McComb, EdD(cand.), Vancouver, BC; Michael Klein, MD, FAAP, CCFP, FCPS, Vancouver, BC; Shafik Dharamsi, PhD, Vancouver, BC; Christine Jonas-Simpson, RN, PhD, Toronto, ON; Joanne Cacciatore, PhD, LMSW FT, Phoenix, AZ*  
**ROOM / SALLE : 206B – QCCC / CCQ**
- W62854 16:00-16:10** **The Impact of Cultural Differences on Family Medicine Residency Education: Validating a new assessment instrument**  
*Douglas Archibald, PhD, Ottawa, ON; Alison Eyre, MD, CCFP, Ottawa, ON; Dorota Szczepanik, MD, CCFP, Ottawa, ON; Lionel Laroche, PhD, Markham, ON; Simone Dahrouge, PhD, Ottawa, ON; Timothy Wood, PhD, Ottawa, ON; Memoona Hasnain, MD, MPHE, PhD, Chicago, IL; Daniel Longo, SnD, Richmond, VA*  
**ROOM / SALLE : 2101 – QCCC / CCQ**
- W56524 16:00-16:10** **The "Nightmares" Course: An effective simulation-based acute care training method for family medicine residents**  
*Filip Gilic, CCFP(EM); Ian Sempowski, CCFP(EM); Ana Blagojevic, MD, MSc; Karen Schultz, MD, CCFP*  
**ROOM / SALLE : 2104AB – QCCC / CCQ**

- W77460 16:00-17:00** **Meet Canada's Community-Based Primary Health Care Research Teams!**  
**ROOM / SALLE : 2000C – QCCC / CCQ**

In 2012 CIHR funded 12 interdisciplinary primary healthcare research teams. This Community-based Primary Health Care (CBPHC) Signature Initiative supports highly innovative approaches to improving the delivery of high-quality community-based primary health care to Canadians. This "Lightning Round" session will allow each team 3 minutes and one slide to introduce their approach and progress. All teams will also have a poster available in a special section of the poster area, to provide further details and a chance for you to discuss these innovative and exciting leading-edge research projects with team members!

**Top 4 Oral Presentations / Les 4 meilleures présentations orales****W62732 Quels gestes cliniques les professionnels considèrent-ils comme de l'aide médicale à mourir?**

**13:30-13:40** Claude Arsenault, MD, CCMF, Sherbrooke, QC; Antoine Boivin, MD, PhD, Montréal, QC;  
Isabelle Marcoux, PhD, Ottawa, ON; Mélanie Toupin, MD, Montréal, QC  
**ROOM / SALLE : 205A**

**Contexte :** Le projet de loi 52 soumis à l'Assemblée nationale du Québec propose de légaliser l'aide médicale à mourir. Aucune étude n'a évalué quels gestes cliniques concrets sont interprétés comme de l'aide médicale à mourir par les professionnels de la santé. **Objectif :** Explorer la compréhension au plan clinique de l'aide médicale à mourir par les professionnels de la santé. **Type d'étude :** Questionnaire auto-administré. **Participants :** Médecins et infirmières recrutés lors d'activités de formation continue. **Mesure :** Six scénarios cliniques ont décrit différents gestes cliniques posés par un professionnel à une personne en fin de vie, incluant le refus de traitement, l'utilisation d'opiacés ajustés au soulagement des symptômes et la prescription ou l'injection d'un médicament mortel avec ou sans la demande du patient. Le répondant devait statuer s'il considère chacun de ces gestes comme étant ou non une aide médicale à mourir. **Résultats :** Des 308 questionnaires distribués, 271 ont été complétés (taux de réponse de 88 %). Sur les 271 participants, 200 sont des infirmières et 71 des médecins. Le pourcentage de répondants qui croient que le scénario correspond à de l'aide médicale à mourir va comme suit : 1) refus de traitement, 64 %; 2) utilisation d'opiacés ajustés au soulagement des symptômes, 39 %; 3) utilisation d'opiacés au-delà de ce qui est nécessaire pour le soulagement des symptômes, 79 %; 4) prescription d'un barbiturique oral administré par le patient, 69 %; 5) injection d'un bloqueur neuromusculaire et d'un barbiturique à la demande du patient, 76 %; 6) injection d'un bloqueur neuromusculaire et d'un barbiturique à la demande d'un proche pour un patient inapte, 74 %. **Conclusion :** Il existe une grande variation dans l'interprétation de ce qu'est l'aide médicale à mourir. Une majorité de professionnels croient que des gestes déjà légaux (refus de traitement) et des gestes n'étant pas visés par le projet de loi 52 (injection d'un médicament mortel à une personne inapte) constituent de l'aide médicale à mourir. Il est nécessaire de clarifier quels gestes cliniques concrets sont visés par les propositions de changements législatifs.

**Top 4 Oral Presentations / Les 4 meilleures présentations orales****W62685 An RCT of Supported Self-Care for Depressive Symptoms in Association With Chronic Physical Conditions**

**13:30-13:40** Mark Yaffe, MDCM, MCISc, CCFP, FCFP, Montreal, QC; Jane McCusker, PhD, Montreal, QC;  
Martin Cole, MD, FRCPC, Montreal, QC; Maida Sewitch, PhD, Montreal, QC; Tamara Sussman, PhD, Montreal, QC;  
Erin Strumpf, PhD, Montreal, QC; Antonio Ciampi, PhD, Montreal, QC; Eric Belzile, MSc, Montreal, QC  
**ROOM / SALLE : 205B**

**Contexte:** Self-care interventions may be effective in managing chronic illness; however, depression can decrease adherence to such self-care. It is not clear whether outcomes for supported depression self-care differ from unsupported interventions. **Objective:** To examine depression outcomes in association with co-morbid physical conditions when supported depression self-care is compared with non-supported self-care. **Design:** Randomized controlled trial. **Participants:** Patients in family physician practices, 40 years and older, English or French speaking, with chronic physical illness or pain of 6 months or greater, and with depressive symptoms using the PHQ-9 depression screening tool. Patients were randomized to the intervention (supported) or control (unsupported) group. **Intervention:** All participants were given a self-care tool-kit comprised of an antidepressant skills workbook; a depression management DVD; mood monitoring sheets; a relaxation CD; and information on medication misuse, emotional eating, community resources, relevant Internet sites, and information for family and friends. The control group utilized tools ad lib, while the intervention group received weekly, trained lay coach telephone support for 3 months and then once per month for another 3 months. **Outcome measures:** The primary outcome was PHQ-9 depression assessment at 6 months by an independent research assistant. **Results:** Of 1046 patients referred from 18 practices, 399 were eligible, and 223 consented and were randomized. 172 (77%) completed the 6 month trial. Intervention participants received a mean of 9.1 coach telephone calls, with mean duration of 11.2 minutes. At 3 months the mean PHQ-9 score was significantly lower in the intervention group compared to controls; however, at 6 months there was no significant difference between scores of the 2 groups. Secondary analyses suggested that, compared to those with mild and severe symptoms, those with moderate symptom severity were most likely to benefit from the intervention. **Conclusion:** The overall non-significant effect of the intervention on the primary outcome may be due to dilution of an effect by inclusion of patients with mild and severe symptoms. Coaching improves the severity of depressive symptoms at 3 months, but this effect is not sustained at 6 months.

**Top 4 Oral Presentations / Les 4 meilleures présentations orales****W63172 Development of a Clinical Decision Support Tool for the Primary Prevention of Cardiovascular Disease**

**13:30-13:40** Anton Rabien, MD, CCFP, Sooke, BC; Morgan Price, MD, PhD, CCFP, Victoria, BC  
**ROOM / SALLE : 205C**

**Contexte:** Cardiovascular disease is the most prevalent chronic medical condition in Canada. A strategy of managing cardiovascular disease risk based on routinely performing personalized risk estimates and progressively targeting interventions towards risk factors can reduce morbidity and mortality. One barrier to the widespread adoption of such a risk stratification strategy in clinical practice is the lack of an easy-to-use tool that provides risk-based recommendations and encourages shared decision-making. **Objective:** To develop a patient-centred, clinical decision support tool for the primary prevention of cardiovascular disease that encourages evidence-based decision making. **Design:** Systematic review. **Instrument:** The clinical practice guideline database of the Canadian Medical Association was reviewed for guidelines focused on the primary prevention of cardiovascular disease in adult populations. Review of the guidelines led to a search of PubMed for multivariable risk algorithms (key words Framingham heart study) and a search of the Cochrane database for meta-analyses of recommended interventions (key words cardiovascular disease and prevention; if meta-analyses unavailable, PubMed was searched for randomized controlled trials). **Results:** We created a web-based application that provides personalized multivariable risk estimates of developing coronary heart disease and stroke over the next ten years based on age, sex, smoking status, family history of early coronary heart disease, systolic blood pressure, use of anti-hypertensive medication, and lipid profile. The application also presents personalized, risk-based recommendations for lifestyle modification and pharmaceutical intervention from five Canadian guidelines for the prevention of cardiovascular disease, in addition to modified risk estimates of developing cardiovascular disease over the next ten years for selected interventions (smoking cessation, treatment of blood pressure with various agents and to various targets, treatment with cholesterol lowering agents, and treatment with anti-platelet medication) and risk estimates of developing treatment-related adverse events. Outcomes are presented both graphically and numerically, as absolute risks with accompanying numbers-needed-to-treat estimates and optional confidence intervals (<http://www.cardiovascularcalculator.radarhill.net/>). **Conclusion:** We have developed an interactive, web-based clinical decision support tool that can conveniently assess coronary heart disease and stroke risk and provide personalized, guideline-based recommendations with evidence-based risk reduction estimates for various lifestyle and pharmaceutical interventions.

**W62705 Caring and Communicating in Critical Cases: A resource for rural physicians**13:30-13:40 *Antonia Johnson, MBA; Lindsey Campbell, MD; M. Firdaus M. Mydeen, MD, CCFP***ROOM / SALLE : 206A**

**Context:** ATLS protocols are key to the optimal evaluation and management of trauma patients, and a designated trauma team leader improves protocol compliance. However, practitioners' knowledge of trauma protocols decline significantly after ATLS course completion. This poses a constant challenge to physicians who especially do not face such scenarios frequently. This challenge is magnified in rural hospitals where there are fewer resources for critical cases, and must also communicate with a distant tertiary or definitive care centre. We designed a one-page form and wall poster that outlines ABCDE assessment protocols sequentially and concisely, emphasizing communication within the trauma team and with others. Specifically, the form prompts the team to assign responsibilities and use pictures to document findings, besides having a checklist approach. This form and poster could empower rural physicians and hospital staff to improve their management of critical cases. Proper use of this form would ensure that the care team follows trauma protocols and can communicate succinctly with each other and with distant hospitals regarding patient status and the team's interventions. **Objective:** To determine the ability of the trauma form and poster to improve communication, approach, and organization, besides documentation of critical cases in rural settings. **Participants:** 51 administrators, paramedics, nurses, students, residents, and physicians with experience in rural medicine. **Outcome measures:** a rating scale ranging from "Not at all likely" to "Very likely" to improve each of communication, approach and organization, and documentation of critical cases in rural settings. **Findings:** Most participants thought the form would be useful in improving communication, organization, and documentation. Regardless of profession, a large majority of participants thought the form would be useful or very useful in improving all of the above. Our results also showed that nurses were more ambivalent about the form's utility in these areas than other professions. **Conclusion:** This form is very likely to be useful in the assessment and management of critical cases in rural emergency rooms. We intend to further our research by obtaining feedback on the form's content and layout as it is used in rural Alberta emergency rooms.

**W67400 Implementation of the Expanded Chronic Care Model for the Management of Diabetes in a Community Clinic**

13:30-13:40

*Juan Soto, MD, CCFP, Spruce Grove, AB; Cecile Pasino, PhD***ROOM / SALLE : 206B**

This study was conducted to compare the management of diabetes type II using the elements of the expanded chronic care model (CDC patients) vs conventional treatment (non-CDC patients) by Parkland Medical Clinic in Spruce Grove, Alberta. A descriptive study was employed with 100 randomly chosen patients out of 689 known diabetics. A chart review was done to determine the patient's profile, which include age, gender, date of last visit, blood pressure, body mass index (BMI), HbA1C, and LDL. Data was processed to measure significant differences comparing the management of type II diabetes between CDC and non-CDC patients. Frequency distribution, percentages, and averages weighted mean were done to answer specifically the significant differences on the type of care provided. CDC patients showed a significant difference in terms of target values for LDL (60% vs 44%) and blood pressure (70% vs 40%) when compared with non-CDC patients. Opposite results for Hb A1c targets (48 % vs 56%) and obesity rates (92 % vs 82%) reflect the complexity of patients followed by the CDC team. **Conclusion:** In terms of management support, clinical care, delivery of concern and care, community support, and efficient care, particularly in those at higher risk of cardiovascular disease, we concluded that CDC patients were well provided with the type of care and management that is needed in this population.

**W62632 Évaluation de l'implantation d'un système de soins en HTA dans les GMF de la Montérégie**

13:45-13:55

*Stéphane Groulx, MD, FCMF, Longueuil, QC; Jean Beaudry, MA Psy, Longueuil, QC; Yves Filion, DtP, MBA, Montréal, QC; Julie Dufort, MD, MSc, FRCPC, Longueuil, QC***ROOM / SALLE : 205A**

**Contexte :** Malgré des progrès récents dans le contrôle de l'hypertension (HTA) au Canada, le dépistage et la prise en charge de ce facteur de risque cardiovasculaire crucial demeurent sous optimaux. Les groupes de médecine de famille (GMF) sont de nouvelles organisations de soins de première ligne au Québec dans lesquelles les cliniciens (médecins et infirmières) collaborent pour améliorer l'accessibilité, la qualité et la continuité des soins offerts à une population définie. Afin d'aider les cliniciens à faire face aux multiples défis de l'HTA, la direction de santé publique de la Montérégie a conçu et implanté depuis 2007 un système de soins en six étapes inspiré des programmes états-unien Put Prevention Into Practice et STEP-UP, dont la promotion et le soutien sont assurés au niveau local par une infirmière-conseil en prévention clinique (ICPC). **Objectifs :** 1) Documenter la réalisation des six étapes du système; 2) Identifier les facteurs favorables et les contraintes à l'implantation; 3) Apprécier la perception par les cliniciens de la qualité, de l'efficacité et de l'efficience des soins suite à l'implantation, ses effets sur la collaboration interprofessionnelle, ainsi que la satisfaction à l'égard de la démarche. **Plan :** Participants et instrument : étude de cas de cinq GMF, utilisant des entrevues semi-structurées avec les ICPC (n=5), les médecins (n=5) et les infirmières (n=5) des GMF, ainsi qu'un questionnaire pré-entrevue. **Constatations :** On observe une implantation partielle et variable des étapes, tâches et activités (moyenne 54 %), ainsi que des outils proposés (moyenne 15 %). Selon les participants interrogés, l'intervention a permis dans certains cas de consolider la collaboration interprofessionnelle, ainsi que d'améliorer l'efficacité, l'efficience et la qualité des soins. La satisfaction concernant le processus est élevée. L'évaluation des effets du système de soins sur les pratiques cliniques fait l'objet d'une présentation complémentaire. **Conclusion :** Cette étude permet aux parties prenantes aux niveaux provincial, régional et local : 1) d'apprécier les forces et limites de la systématisation, comme stratégie d'intégration des pratiques cliniques préventives pour lutter contre les maladies chroniques; 2) d'identifier les conditions favorables à l'implantation. Elle aidera plus directement les milieux cliniques à améliorer leur système de soins en HTA et à en implanter des nouveaux.

**W63402 Screening for Red Flags in Patients With MDD During Follow-up Visits in a Group Family Practice**

13:45-13:55

*Setorme Tsikata, MBChB, MSc, CCFP, Edmonton, AB; Justice Asomaning, PhD, Edmonton, AB; Zahra Fatehi-Hassanabad, MD, PhD, Edmonton, AB***ROOM / SALLE : 205B**

**Context:** Major Depressive Disorder (MDD) is a serious condition affecting 8% of Canadians. Suicidal ideation and the risk of completing suicide are highest among patients whose symptoms are not well controlled. Simple screening questions about mood, suicidal and homicidal ideation, as well as observation of affect can help make a quick determination of red flags for adverse events. **Objective:** To determine what proportion of patients with MDD are screened for the risk of suicide and homicide, as well as inquiry of mood and observation of affect during follow-up visits. **Design:** Cross-sectional review of the electronic medical records of patients in a group family practice in Alberta. **Target population:** All patients with a documented ICD-9 code diagnosis of MDD who followed up for antidepressant renewal between January 1st and March 30, 2013. **Results:** Total number of patients in the practice was 45597, with a 0.8% prevalence of depression. Of the patients with depression who presented at follow-up visits to renew their prescriptions, more than 64%, 90%, and 50% were not screened for suicidal ideation, homicidal ideation, and mood, respectively. Clinic, gender, and age group were not significantly ( $p > 0.05$ ) associated with



screening for homicidal ideation and mood in patients with MDD. Similarly, clinic and gender were not significantly ( $p > 0.05$ ) associated with screening for suicidal ideation. Age group, on the other hand, was significantly ( $p < 0.05$ ) associated with screening for suicidal ideation in patients with MDD, with age groups 18-29, 30-39, 40-40, 50-59 and  $>50$  being 5, 7, 15, 23, and 20 times, respectively, less likely to be screened for suicidal ideation compared with the  $<18$  age group. **Conclusion:** An overwhelming majority of patients are not screened for the risk of adverse events using the measures studied such as mood, suicidal ideation, homicidal ideation, and observation of affect. Patients aged  $<18$  are significantly more likely to be screened for suicidal ideation. Patients with debilitating complications of depression such as suicidal and homicidal ideation may be missed if this practice pattern continues.

#### W62645 Quality of Work Life of Rural Emergency Department Nurses and Physicians: A pilot study

13:45-13:55

*Bragard, PhD, Belgique; Gilles Dupuis, PhD, Montréal, QC; Patrick Archambault, MD, MSc, FRCPC(c), CSPQ, Lévis, QC; France Légaré, MD, PhD, CCFP, Québec, QC; Jean-Marc Chauny, MD, CSPQ, MSc, Montréal, QC; Jean-Frédéric Lévesque, MD, PhD, NSW, Australia; Mathieu Ouimet, PhD, Québec, QC; Julien Poitras, MD, CSPQ, Lévis, Québec; Richard Fleet, MD, PhD, CCFP (EM), Québec, Québec*

ROOM / SALLE : 206A

**Context:** The challenges of providing emergency care in rural areas may contribute to professional stress and negatively impact recruitment and retention. Little is known about recruitment and retention factors (RRF) and quality of work life (QWL) in rural emergency departments (EDs). We sought to assess the feasibility of an evaluation of RRF and QWL in two rural EDs in order to plan a larger study in Quebec.

**Methods:** We selected a convenient sample of two rural EDs participating in the planned larger trial. The first ED (29 nurses and physicians) receives about 10,000 patients per year and the second (35 nurses and physicians) about 30,000 patients per year. They were invited by e-mail to complete two online surveys: a 39-item questionnaire measuring RRF and the Quality of Work Life Systemic Inventory (QWLSI; 34 items). For QWLSI, scores below the 25th percentile indicate problematic areas. We computed descriptive statistics. **Results:** Twenty of the 64 eligible workers (only 3 physicians) completed the questionnaires (31% response rate). The mean age was 42 years ( $SD = 11.6$ ). Most workers had more than 6 years of work experience (85%). Two physicians were trained family doctors and one had completed a certification in emergency medicine. Regarding RRF, 45% of workers were “not at all” to “a little” satisfied about their access to training. However, almost all workers were “moderately” to “very” satisfied about technical resources (90%), pre-hospital and inter-hospital transfers services (95%), relationships with co-workers (95%), relationships with managers (85%), and balance between personal and professional commitment (95%). About 90% of the workers also reported that several characteristics of the working environment (aesthetic qualities, good weather, tranquility, advantageous cost of living) had a positive impact on their quality of life. The global QWL score was at the 50th percentile. However, competitiveness, physical workload, relations with employees, policy in case of leave for family reasons, and support facilities were below the 25th percentile. **Conclusion:** Feasibility of evaluating QWL and RRF in rural EDs appears challenging. There is an urgent need to find new strategies to increase response rate in view of a larger trial.

#### W60143 The Neighbourhood Effect of Immigration on an Urban Diabetic Population

13:45-13:55

*Alain Vanasse, MD, PhD, Sherbrooke, QC; Maria Gabriela Orzanco, PhD, Montréal, QC; Patrick Bergeron, PhD, Sherbrooke, QC; Alan Cohen, PhD, Sherbrooke, QC;*

*Théophile Niyonsenga, PhD, Adelaide, Australia; Denis Leroux, PhD, Trois-Rivières, QC;*

*Lynne Cloutier, PhD, Trois-Rivières, QC; Shabnam Asghari, MD, PhD, St. John's, NL; Josiane Courteau, PhD, Sherbrooke, QC*

ROOM / SALLE : 206B

**Context:** Studies have shown that neighbourhoods may influence the health and behaviours of populations. The health of immigrants is an important research in Canada not only because the immigrant population represented 21% of its population in 2011, but because immigrants have different health status and behaviours than native-born Canadians. **Objective:** To explore if, in a cohort of diabetic patients living in the Montreal metropolitan area, patients' outcomes and accessibility to care vary with the immigration and socioeconomic attributes of their neighbourhoods. **Design:** This is a population-based retrospective cohort study. **Target population:** The study cohort includes 111,556 patients 30 years and older and living in Montreal diagnosed with diabetes between 2004 and 2007, without previous cardiovascular disease (CVD). **Outcome measures:** Variables were all-cause hospitalization and death; CVD events; mental health problems; frequent use of emergency care ( $\geq 4$  claims), family medicine care ( $\geq 22$  claims), specialists care ( $\geq 4$  claims); and use of antidiabetic drugs. **Methods:** Using principal components analysis applied to census variables for 6,006 small regions in the metropolitan Montreal area, we calculated scores for immigration, material deprivation, and social deprivation of each region. We used multi-level logistic regression controlling for age, sex, comorbidities, and living in the city core to assess the effect of neighbourhood characteristics (immigration and socioeconomic deprivation) on the probability that individuals living in the neighbourhoods experience these outcomes. **Results:** The cohort cumulated 6,453 deaths, 35,928 hospitalizations, and 6,064 CVD events. Patients living in neighbourhoods with high immigration were less likely to experience outcome events but more likely to seek emergency care and specialist care. Socially wealthy neighbourhoods with high immigration show fewer mental health problems. Finally, materially deprived neighbourhoods with high immigration had the highest utilization rate of antidiabetic drugs. **Conclusion:** For a metropolitan diabetic population, outcomes and health care inequalities are related to immigration and socioeconomic attributes of their neighbourhoods.

#### W62633 Effets sur les pratiques cliniques d'un système de soins en HTA dans les GMF de la Montérégie

14:00-14:10

*Stéphane Groulx, MD, FCMF, Longueuil, QC; Jean Beaudry, MA Psy, Longueuil, QC; Yves Filion, Dtp, MBA, Montréal, QC; Julie Dufort, MD, MSc, FRCPC, Longueuil, QC*

ROOM / SALLE : 205A

**Contexte :** Malgré des progrès récents dans le contrôle de l'hypertension (HTA) au Canada, le dépistage et la prise en charge de ce facteur de risque cardiovasculaire crucial demeurent sous optimaux. Les groupes de médecine de famille (GMF) sont de nouvelles organisations de soins de première ligne au Québec dans lesquelles les cliniciens (médecins et infirmières) collaborent pour améliorer l'accessibilité, la qualité et la continuité des soins offerts à une population définie. Afin d'aider les cliniciens à faire face aux multiples défis de l'HTA, la direction de santé publique de la Montérégie a conçu et implanté depuis 2007 un système de soins « clé en main » en six étapes inspiré des programmes états-uniens Put Prevention Into Practice et STEP-UP, dont la promotion et le soutien sont assurés au niveau local par une infirmière-conseil en prévention clinique (ICPC). **Objectifs :** Comparer la conformité des pratiques de deux GMF exposés au système et de deux GMF témoins avec les recommandations du Programme éducatif canadien sur l'hypertension (PECH). **Plan :** Devis quasi expérimental post intervention avec groupe témoin. **Participants :** Échantillon aléatoire de patients hypertendus et non hypertendus ayant consulté au cours de la dernière année dans les GMF expérimentaux et témoins ( $n=243$ ). Sources de données et mesures : Enquête téléphonique auprès des patients, suivie d'un audit de leurs dossiers médicaux, portant sur les pratiques cliniques préventives en HTA. **Résultats et Discussion :** Malgré l'implantation partielle du système de soins (voir présentation complémentaire) et le fait que seulement un tiers des hypertendus sélectionnés ont rencontré l'infirmière, les GMF expérimentaux démontrent des pratiques cliniques plus conformes aux recommandations du PECH ( $p<0,05$ ), pour plusieurs pratiques de dépistage, de diagnostic et d'évaluation du risque cardiovasculaire. Aucune différence n'a été

notée concernant les pratiques de counselling ou l'atteinte des cibles de TA à la dernière mesure. **Conclusion :** Un système de soins soutenu par une ICPC a permis d'améliorer certaines pratiques préventives en HTA dans les GMF. Les données révèlent toutefois des lacunes dans les soins dispensés. Elles mettent en lumière l'importance du rôle de l'infirmière et du dossier médical électronique dans l'optimisation des soins de première ligne.

#### W57404 The Rasouli Decision: Is the withdrawal of life-sustaining measures considered treatment?

14:00-14:10 Yatri Patel, MD, Masters of Studies in Law (cand.); Robert Solomon, LLB, LLM

ROOM / SALLE : 205B

**Context:** In the case of Hassan Rasouli, the Supreme Court of Canada determined that the withdrawal of life-sustaining therapy is a form of treatment. This decision prevents physicians from withdrawing life-sustaining measures without obtaining explicit informed consent from patients' substitute decision makers (SDMs). The Consent and Capacity Board (CCB) is a legislative tribunal that mediates healthcare disputes in Ontario. **Objective:** We sought to examine the legal principles of consent for incapacitated patients, the organization and mandate of the CCB, and assess its decisions in disputes revolving around withdrawal of life-sustaining therapy. **Design:** Doctrinal (Primary) Legal Research – examination of case law, home statutes of the CCB, and parliamentary proceedings. **Target population:** All patients, SDMs, and physicians involved in cases of unilateral authority in the withdrawal of life-sustaining treatment. **Instrument:** Databases – LexisNexis Quicklaw, Westlaw Canada, CanLII for CCB cases. **Results:** The common law of consent in withdrawing life-sustaining therapies from incapable patients in Canada is inconclusive. The Healthcare Consent Act (HCCA) further confuses the statutory definition of "treatment." Each CCB tribunal is comprised of a lawyer, community member, and a psychiatrist to serve as a medical expert. Between 2003 and 2012, thirty end-of-life cases were heard by the CCB. The CCB's decision often agreed with the physicians in withdrawing life-sustaining therapy; however, 25% of cases were appealed in court. We developed a comprehensive protocol for these disputes that address the need for amendment to the HCCA to redefine whether treatment can include futile life-sustaining measures. **Conclusion:** In its current state, the CCB lacks the mandate and medical expertise to adequately adjudicate end-of-life disputes. Since more end-of-life disputes are being heard by the CCB, the tribunal must include physicians who are experienced in the care of critically-ill patients. This can only be achieved by an amendment to the HCCA redefining treatment at the end of life. These changes will balance the medical, legal, and ethical challenges of providing appropriate and compassionate medical care while respecting patients' wishes and allowing them to die with dignity.

#### W62122 Is the Recommended Use Requisition Acceptable for Bone Mineral Density Testing in Clinical Practice?

14:00-14:10 Rokeni (Sumi) Anantharajah, MD, Toronto, ON; Susana Huang, MD, Toronto, ON; Susan Jaglal, PhD, Toronto, ON; Sarah Munce, PhD, Toronto, ON; Sonya Allin, PhD, Toronto, ON; Tarik Bereket, MA, Toronto, ON;

Debra A. Butt, MD, MSc, CCFP, FCFP, Toronto, ON

ROOM / SALLE : 205C

**Context:** Improving bone mineral density (BMD) referral practices has been a priority of the Ontario Osteoporosis Strategy. To this purpose, a Recommended Use Requisition (RUR) was developed as a standardized requisition for BMD referral in the primary care setting. **Objective:** To understand the acceptability of the RUR in practice and identify the facilitators and barriers to its use. **Design:** Qualitative descriptive study of one-on-one interviews with family physicians before and after using the RUR. **Participants:** Eighteen family physicians, 7 family medicine residents, and 1 nurse practitioner from 3 municipalities and 11 clinics in Ontario. **Intervention:** Participants were given 3 requisitions to use over a 2-month period. All participants were interviewed before using the RUR (N=26). Those who had received at least one report generated using the RUR were interviewed after using the RUR (N=15). **Outcome measures:** Themes were identified from the participant responses and were ranked by frequency of mention. **Findings:** The majority of participants expressed positive first impressions of the RUR before use (n=23) and after use (n=14). Subthemes were positive impressions with respect to both the content and format of the RUR. After using the RUR, the majority of participants (n=14) responded that completing the RUR was practical within the day-to-day clinic practice. Electronic availability was the most commonly cited facilitator (n=9). Half of the family physicians cited intrinsic limitations of the study as barriers such as the uncertain endorsement of the RUR, forgetting to use it, or not having enough copies of the requisition. Half of the family physicians identified barriers relating to the feasibility of using the RUR, including not being available electronically, creating more paper clutter in the office and the perceived length of the RUR. After using the RUR, two-thirds of the participants preferred to use the RUR over the existing BMD requisition forms. **Conclusion:** Use of the RUR was positively received by the majority of primary care practitioners in the study. The RUR has the potential for improving and standardizing the communication of known risk factors for osteoporosis between family physicians and specialists in osteoporosis management.

#### W60567 Portrait of Rural Emergency Departments and Utilisation of Emergency Management Guide in Quebec

14:00-14:10 Richard Fleet, MD, PhD, CCFP (EM), Lévis, QC; Patrick Archambault, MD, MSc, FRCP(c), CSPQ, Lévis, QC;

France Légaré, MD, PhD, CCFP, Québec, QC; Jean-Marc Chauny, MD, CSPQ, MSc, Montréal, QC;

Jean-Frédéric Lévesque, MD, PhD, New South Wales, Australia; Mathieu Ouimet, PhD, Québec, QC;

Gilles Dupuis, PhD, Montréal, QC; Jeannie Haggerty, PhD, Montréal, QC; Julien Poitras, MD, CSPQ, Lévis, QC;

Alain Tanguay, MD, Lévis, QC; Geneviève Simard-Racine, MD, Amqui, QC; Josée Gauthier, MSc, Rimouski, QC

ROOM / SALLE : 206A

**Context:** Rural emergency departments (EDs) are important safety nets for the 20% of Canadians who reside there. Surprisingly, information on these EDs is scarce. Pilot data suggests important interprovincial differences in access to services in rural EDs. Quebec appears to provide more comprehensive access that may be attributed to policy/guidelines (Quebec ED management guide [QEDMG]). This hypothesis requires further study. **Methods:** We selected EDs offering 24/7 medical coverage, having hospitalization beds, and located in "rural or small towns". We collected data using phone, paper, and online surveys with rural ED/hospital staff. Data was also collected from Quebec Ministry of Health databases. We computed descriptive statistics. **Results:** Among Quebec's 26 EDs, 23 consented to participate (88.5%). These EDs are located in communities with a median population of 5940 (IQR: 2401 to 7914). The median annual ED census was 19594 (Interquartile range (IQR): 14971 to 21433). The proportion of patient-visits according to triage level was 0.5%, 2.2%, 19.6%, 35.6%, and 42.1% for level 1 to 5, respectively. Most commonly, ED physicians were recent graduates with less than 5 years of experience (31%). Seven percent had residency training/certification in emergency medicine. Forty percent of shifts were covered by "full time" ED physicians, 14% by locums. Access to the following 24/7 services was: X ray/lab 100%, CT scanner 74%; ICU 78%; psychiatrist 48%; obstetrician/gynecologist 35%; surgeon 78%; pediatrician 13%; orthopedist 17%; and anesthesiologist 65%. Forty two percent of EDs are more than 300 km away from a level 1 trauma centre and 58% from level 2 trauma centres, and only 33% of these EDs had air transport access. Roughly, 290 (SD 88) interfacility transfers were required per year per ED. Forty percent of participants reported having limited knowledge of the QEDMG and 77% reported never or only sometimes using the QEDMG. **Conclusion:** Quebec rural EDs are staffed by relatively new graduates working as solo physicians in well-resourced, moderately busy EDs. These EDs are distant from trauma centres and have limited access to air transport. QEDMG may have contributed to this model of service attribution favouring more local services versus interfacility transport.

**W63286 Where Is Abortion Service Provided in Canada?: Results of a national survey****14:00-14:10**

Wendy V. Norman, MD, MHSc, Vancouver, BC; Edith Guilbert, MD, MSc, Québec, QC;  
 Christopher Okpaleke, MBBS, MPH (cand.), Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, Ill;  
 Maureen Paul, MD, MPH, Boston, Mass; Katharine O'Connell White, MD, MPH, Tufts University School of Medicine  
**ROOM / SALLE : 206B**

**Context:** The distribution, techniques, and experiences of abortion providers in Canada are poorly understood. **Objective:** To survey a comprehensive sample of abortion facilities within Canada, aiming to understand Canadian abortion services and distribution. **Design:** National cross-sectional self-completion survey among abortion facilities. **Participants:** We used public sources and professional networks to identify abortion facilities in all Canadian jurisdictions. **Instrument:** We adapted a previously published instrument to be relevant for the Canadian context. English and French surveys were distributed by mail and e-mail, with Dillman reminder techniques, from July through November 2013. **Outcome measures:** We collected data on location and volume of abortions provided, on techniques, provider and facility characteristics, and experience with stigma and harassment. We report here on distribution of services. **Results:** We identified 94 facilities providing abortion, of which 49% are in Quebec, a province where 23.1% of Canadians reside. Response rate was 83% (78/94), including 89% (41/46) from Quebec. At least one facility in every province and territory responded, excepting Prince Edward Island, where we were unable to identify any abortion provision. Responding facilities by region represented 4/4 from Atlantic, 9/16 from Ontario, 6/8 from the Prairies, 15/16 from BC, and 3/4 from the Territories. Among respondents, 47 were ambulatory clinics or doctor's offices, and 34 provided abortion within a hospital, including 7 reporting use of both settings. Respondents reported provision of 75,650 abortions in 2012, including 4% as medical abortions. The majority of reporting facilities (51.4%), including 65% of those in Quebec, provided fewer than 500 abortions/year, with only 20.3% of facilities (8%, Quebec) providing over 2000 abortions/year. **Discussion:** Our results are limited by a low response among Ontario facilities. However, the 83% of identified facilities responding performed 90.4% of the number of abortions (83,708) reported for 2012 by the Canadian Institute for Health Information. **Conclusion:** Access to abortion in Canada varies by region with nearly half of all services located in Quebec. Medical abortion is rarely accessed in Canada. These findings reflect disparity between federal and provincial health policies and service delivery compared to population distribution and service requirements. 1415-1425

**W63318 Types d'avortements pratiqués au Québec et dans le reste du Canada : Une étude nationale****14:15-14:25**

Edith Guilbert, MD, MSc, Québec, QC; Heidi E. Jones, PhD, MPH, NY; Christopher Okpaleke, MBBS, MPH (cand.), Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, Ill; Maureen Paul, MD, MPH, Boston, MA;  
 Katharine O'Connell White, MD, MPH, Springfield, MA; Wendy V. Norman, MD, MHSc, CCFP, FCFP, Vancouver, BC  
**ROOM / SALLE : 205A**

**Contexte :** Des données américaines et internationales indiquent qu'une proportion significative des avortements sont faits par voie médicamenteuse dans le monde. Le Canada est l'un des seuls pays à ne pas avoir accès à la mifépristone, le médicament indiqué pour faire de tels avortements. **Objectif :** Estimer la prévalence d'avortements médicamenteux et chirurgicaux pratiqués au Québec et au Canada en 2012. **Méthodes :** Sondage transversal d'envergure nationale. **Participants :** Utilisation de sources publiques et de réseaux professionnels pour identifier les cliniques d'avortement partout au Canada. **Instrument de collecte :** Adaptation au contexte canadien d'un questionnaire préalablement publié. Envoi de versions anglophone et francophone du questionnaire par voies postale et électronique, de juillet à novembre 2013, en utilisant la technique de Dillman. Mesures : Lieu des cliniques, techniques d'avortement, caractéristiques des professionnels. **Résultats :** Parmi 94 cliniques d'avortement répertoriées au Canada, 78 (83 %) ont participé au sondage. Selon les responsables des cliniques sondées, les avortements chirurgicaux du 1er trimestre représentent 90,1 % de tous les avortements rapportés au Canada (68 154/75 650) : 92,6 % de tous les avortements rapportés au Québec (22 319/24 106) et 83,3 % de ceux du reste du Canada. Les avortements chirurgicaux du 2e trimestre constituent 5,9 % (4 468/75 650) de tous les avortements au Canada : 6,4 % de tous les avortements du Québec (1 541/24 106) et 5,7 % de ceux du reste du Canada. Les avortements médicamenteux (AM) sont principalement pratiqués ailleurs au Canada qu'au Québec (5,1 % versus 0,3 %) ; seulement trois cliniques au Canada (pratiquant <1 % de tous les AM) offrent ce service au-delà de 7 semaines de gestation. Le régime thérapeutique le plus fréquemment utilisé pour les AM est une combinaison de méthotrexate et misoprostol. Les AM du 2e trimestre représentent 0,4 % de tous les avortements au Canada : 0,8 % de tous les avortements du Québec comparativement à 0,3 % de ceux du reste du Canada. **Conclusion :** La procédure d'avortement principalement utilisée, tant au Québec que dans le reste du Canada, est d'ordre chirurgical, et ce, principalement pour des avortements du 1er trimestre. La mifépristone n'est pas encore disponible au Canada; cela peut expliquer l'accès réduit à l'avortement médicamenteux au Canada, en particulier au Québec.

**W62620 A Screening Toolkit for Early Identification of Mental Health Issues in Seniors****14:15-14:25**

Bonnie Dobbs, PhD, Edmonton, AB; Diane McNeil, PhD, Edmonton, AB; Anita Saini, MC, Edmonton, AB  
**ROOM / SALLE : 205B**

**Context:** Historically, identification rates of mental health disorders in seniors presenting in primary care settings are low. There have been repeated calls for standardized screening of mental health disorders for seniors, with the goal of enhancing detection and more timely intervention. **Objective:** The objective of this grant-funded project was to develop a standardized, user-friendly screening toolkit for the early identification of mental health disorders in seniors for use in both rural and urban primary care settings. **Design:** Systematic literature review methodology was used for screening tool selection; 7 electronic databases searched for studies assessing the predictive properties of screening tools for anxiety, dementia, depression, psychoses, and substance (alcohol) use disorder in seniors. To be eligible, studies had to fit specific criteria. **Participants:** An Expert Panel, consisting of 3 academics with expertise in systematic review methodology and mental health disorders in seniors, provided input on the psychometric "soundness" of the screening tools selected from the systematic reviews. Twenty-four primary healthcare professionals provided input on the feasibility of use of the selected tools in the primary care setting during Consensus Group meetings. **Outcome measures:** For the systematic reviews, only studies that assessed the predictive properties, used a gold standard as an outcome measure, targeted the population of interest, and met other established criteria were included. Screening tools selected from the systematic reviews were presented to the Expert Panel and Consensus Groups for feedback. **Results:** Six studies met the inclusionary criteria for anxiety, 43 for dementia, 17 for depression, 0 for psychoses, and 4 for alcohol abuse. The Expert Panel validated the choice of the screening tools identified across 4 of the 5 disorders. Overall, the Consensus Group ratings on accuracy and suitability of use in the primary care setting were favourable. Eight screening tools were selected for inclusion in the toolkit. **Conclusion:** Mental illness remains largely under-diagnosed in those aged 65 and older. The availability of a standardized, user-friendly toolkit for early identification of mental illness in seniors allows for earlier identification, which in turn can inform treatment and result in improved outcomes for seniors.



**W60157 Prognostic Value of Residential Hospice Admission Priority Tool Compared to the Palliative Prognostic Index**

**14:15-14:25** Leslie Morrison, MD, Barrie, ON; Kelly Hubbard, RN, BScN, CHPCN(C), Barrie, ON; Linda Johnston, RN, Barrie, ON; Erin Ueffing, HBHSc, MHSc; Brian Morris, MD, CCFP, Barrie, ON; Anwar Parbtani, PhD, MD, CCFP, Barrie, ON  
**ROOM / SALLE : 205C**

**Context:** Limited residential hospice resources necessitate judicious admission prioritization for palliative patients. The commonly used Palliative Prognostic Index (PPI) correlates well with median days to death for a group of patients but is a weak predictor of life expectancy for an individual patient. In hope of achieving a better prognostic indication, the Hospice Simcoe in Barrie utilizes a tool (Residential Hospice Admission Priority Tool [RHAPT]) that includes PPI, components of the Edmonton Symptom Assessment System (ESAS) that measures the physical (ESAS-phys) and psychological (ESAS-psych) burden of illness, and the patient's care environment (CE). However, to date RHAPT's validity has not been tested. **Objectives:** To assess correlations of RHAPT and PPI versus time to death (TTD) from triage, ESAS-phys, ESAS-psych, and the patient's CE. **Methods:** A retrospective chart review of palliative cancer patients admitted to Hospice Simcoe over a 3-year period (2010 to 2013) was conducted. Charts lacking data required to obtain RHAPT, PPI, ESAS-phys, ESAS-Psych, CE, or TTD scores were excluded. Statistics: Data was non-normally distributed, and was hence assessed using the Spearman Rank Correlation. **Results:** A total of 272 charts (137 females; 135 males) of palliative cancer patients were assessed. Mean age was 72 ± 14 (mean ± sd). Mean TTD from triage was 32 ± 42; (median: 17 days). Mean PPI score was 3 ± 1. Mean RHAPT score was 10 ± 3. RHAPT showed a good correlation with PPI (r=0.47; p<0.001). Both tools failed to show significant correlation with individual patients' TTD; however, range of scores for both tools showed strong linear relationships with the group's median TTD (PPI: r=0.85; and RHAPT r=0.90; p <0.001). RHAPT showed much stronger correlation with the burden of illness (vs ESAS-phys: r=0.73; vs ESAS-psych: r=0.80, p<0.001), and the CE scores (r=0.44; p<0.001), compared to PPI (vs ESAS-phys: r=0.31; p<0.01; and vs ESAS psych: r=0.32; p<0.01). PPI did not correlate with the CE scores. **Conclusion:** RHAPT and PPI triage scores were poor predictors of individual patient's life expectancy but RHAPT revealed a slightly better predictive value (p<0.06). Compared to PPI, RHAPT showed much more robust correlation with the burden of illness parameters.

**W60577 Rural Versus Urban In-Hospital Mortality Following Stroke in Canada**

**14:15-14:25** Richard Fleet, MD, PhD, CCFP (EM), Lévis, QC; Sylvain Bussières, PhD, Québec, QC; Fatoumata-Korika Tounkara, MSc, Québec, QC; Gilles Dupuis, PhD, Montréal, QC; Patrick Archambault, MD, MSc, FRCPC, CSPQ, Lévis, QC; Julien Poitras, MD, CSPQ, Lévis, QC  
**ROOM / SALLE : 206A**

**Context:** The Heart and Stroke Foundation of Canada recommends early identification and treatment of suspected stroke patients with a critical decision point being the performance and interpretation of a CT scanner within 45 minutes of arrival in the emergency departments (EDs). With most rural EDs located outside time frames for recommended stroke care, we hypothesized that mortality following stroke would be greater in rural versus urban tertiary hospitals. **Methods:** We used data from the Canadian Institute for Health Information (CIHI) website. Adjusted 30-day in hospital mortality following stroke was computed from 2007 to 2011 for all acute care hospitals in Canada, excluding Quebec. We selected hospitals located in rural small towns providing 24/7 emergency physician coverage with hospitalization beds. Urban tertiary centers were principally academic, designated Level 1 and 2 trauma centres. We compared provincial mean 30-day adjusted stroke mortality rates between rural and urban hospitals. **Results:** There were 290 rural and 24 urban hospitals meeting our criteria. In total, 10% of rural hospitals had local 24/7 access to a CT scanner and 19 % had in-hospital ICU, in contrast to 100% of urban centres. CIHI data was available for 44 % of those hospitals we considered to be rural and 96% of urban. For every province and every year, the 30-day adjusted stroke mortality was significantly higher in rural than urban hospitals. Nationally, rural versus urban hospital mean 30-day stroke mortality (rate per 100) was for 2007: 21.01 (CI 95%: 20.66–21.36) and 16.92 (CI 95%: 16.28–17.56); 2008: 17.78 (CI 95%: 17.01–18.54) and 16.18 (CI 95%: 15.05–17.30); 2009: 19.42 (CI 95%: 18.74–20.09) and 16.03 (CI 95%: 14.98–17.07); 2010: 18.01 (CI 95%: 16.68–19.34) and 14.95 (CI 95%: 13.96–15.95); 2011: 20.17 (CI 95%: 19.28–21.06), and 14.96 (CI 95%: 13.83–16.09). Despite unstable values in certain rural centres, the stability of combined yearly rural data, non-overlapping CIs suggest strong trends in findings. **Conclusion:** Overall 30-day adjusted stroke mortality was, with few exceptions, higher in rural than urban tertiary hospitals in Canada. Results must be interpreted in the context of limited CIHI website-reported data for rural hospitals and absence of data from Quebec.

**W57353 Shifting Tides in the Emigration Pattern of Canadian Physicians to the United States**

**14:15-14:25** Thomas Freeman, MD, CCFP, FCFP; Stephen Petterson, PhD; Andrew Bazemore, MD; Sean Finnegan, MS  
**ROOM / SALLE : 206B**

**Context:** A 2007 analysis revealed that the equivalent of two graduating classes of average sized Canadian medical schools were emigrating to the US. There have been great changes in the medical landscape of both countries and, with potential physician shortages looming, a review was undertaken. **Objective:** To describe the emigration pattern of Canadian medical graduates to the US over the past fifty years and the factors that may influence this. **Design:** A cross-sectional analysis of the AMA Masterfile to identify and locate any graduates of Canadian medical schools currently providing direct patient care in the US. **Results/Findings:** Graduates from Canadian medical schools emigrated to the US in record numbers beginning in 1990 and ending abruptly in 1995. Review of CaRMS data found an associated decline in Canadian applicants to the NRMP over this time period. Further, of those Canadian graduates who completed post-graduate training in the US, a declining proportion chose to remain there following completion of their training. Over the past decade the number of Canadian medical graduates practicing in the US has declined by 11% and are not currently being replaced. **Discussion:** The emigration of Canadian physicians to the US is influenced by both 'push' (factors in Canada that predispose physicians to leave) and 'pull' (factors in the US that make it an attractive place to practice) factors. Shortages of family physicians on both sides of the border are projected making 'push' and 'pull' factors highly dynamic. **Conclusion:** Medical human resource planning requires a long-term view that takes into account 'push' and 'pull' factors.

**W63310 Qui pratique les avortements chirurgicaux au Québec et dans le reste du Canada? Une étude nationale**

**14:30-14:40** Edith Guilbert, MD, MSc, Québec, QC; Heidi E. Jones, PhD, MPH, NY, USA; Christopher Okpaleke, MBBSc, MPH (cand.), Vancouver, BC; E. Steven Lichtenberg, MD, MPH, Chicago, Ill; Maureen Paul, MD, MPH, Boston, MA; Katharine O'Connell White, MD, MPH, Springfield, MA; Wendy Norman, MD, MHSc, CCFP, FCFP, Vancouver, BC  
**ROOM / SALLE : 205A**

**Contexte :** Des données ont montré une variabilité dans la pratique des avortements chirurgicaux aux États-Unis. Au Québec et au Canada, aucune donnée n'a jamais été rapportée sur ce sujet. **Objectif :** Questionner les professionnels d'un échantillon représentatif de cliniques d'avortement au Canada, pour mieux comprendre leur pratique de l'avortement chirurgical. **Méthodes :** Sondage transversal d'envergure nationale. **Participants :** Utilisation de sources publiques et de réseaux professionnels pour identifier les cliniques d'avortement partout au Canada. **Instrument de collecte :** Adaptation au contexte canadien d'un questionnaire préalablement publié. Envoi de versions anglophone et



francophone du questionnaire par voies postale et électronique, de juillet à novembre 2013, en utilisant la technique de Dillman. Mesures : lieu des cliniques, techniques d'avortement, caractéristiques des professionnels. **Résultats :** Parmi 94 cliniques d'avortement répertoriées au Canada, 78 (83 %) ont participé au sondage. Comme rapportée par les responsables des cliniques, l'information pré-avortement au Québec est donnée par des infirmières autorisées (82,5 %) ou des conseillères agréées/travailleuses sociales (15 %). Dans le reste du Canada, cette tâche est assumée par des infirmières autorisées (32,4 %), des conseillères agréées/travailleuses sociales (25,5 %) ou des médecins (23,5 %). Ce sont les infirmières (77,5 %) et les médecins (12,5 %) qui obtiennent le consentement de la femme au Québec, tandis que dans le reste du Canada, ce sont surtout les médecins (52,9 %) et les des conseillères agréées/travailleuses sociales (26,5 %) qui le font. L'échographie pré-avortement est faite dans 95 % et 97 % des cas, au Québec et dans le reste du Canada, respectivement. Au Québec, ce sont les médecins (61,1 %) et les infirmières (22,2 %) qui font ces échographies, tandis que dans le reste du Canada, ce sont les médecins (43,3 %) et des techniciens agréés (33,3 %). La plupart des avortements chirurgicaux sont obtenus sous bloc cervical avec sédation-analgésie consciente (1er trimestre : 77,8 %; 2e trimestre : 84,4 %) sans différence régionale. **Conclusion :** Des variations existent au Canada sur la façon dont les avortements chirurgicaux sont pratiqués, probablement en lien avec la formation et la disponibilité des professionnels de la santé. La connaissance de ces variations a des implications sur l'élargissement de l'accessibilité des services d'avortement au Canada.

### W63212 **Discussing End-of-Life Issues in a New Model of Long-Term Care: A qualitative study**

**14:30-14:40** *Raphaëlle Thériault, MD, CCFP, Halifax, NS; Emily Gard Marshall, PhD, Halifax, NS; Fred Burge, MD, FCFP, MSc, Halifax, NS; Barry Clarke, MD, CCFP, COE, Halifax, NS*  
**ROOM / SALLE : 205B**

**Context:** In Halifax, Nova Scotia, a new model of long-term care (LTC) has been implemented called "Care by Design," which includes an assigned family physician per LTC floor/unit with 24/7 on-call physician coverage, standard completion of a comprehensive geriatric assessment tool for each resident, and access to extended care paramedics (ECPs) for coordinated delivery of emergency acute care on-site. **Objective:** To understand the experiences of key stakeholders (physicians, nurses, extended care paramedics, LTC facility administrators, care aids, residents, and family members) via focus groups and in-depth interviews related to end of life in long-term care. **Design:** This qualitative inquiry used thematic coding of the focus group and in-depth semi-structured interview transcripts. **Participants:** 11 focus groups with 75 participants and in-depth interviews with 37 participants from key stakeholder groups were conducted. **Results:** Aspects of Care by Design found to be helpful in end-of-life included continuity of care; interprofessional collaboration; and resources such as a palliative care team, a palliative care room, and specific standardized palliative orders. The implementation of coordinated interprofessional care, including the accessibility 24/7, continuity, and expertise of care by design physicians and ECP was found to improve end-of-life care greatly according to multiple stakeholder perspectives. Emerging themes included dying in place, not dying alone, the process of recognizing dying, and addressing end of life. Areas for improvement were also explored. **Discussion:** End-of-life is a common occurrence in LTC. It is a process that can be experienced by patients, families and health care providers in a variety of ways. Through this study, it was found that there are multiple factors that can improve this experience for everyone involved. With a standardized implementation of these elements, it is hoped that end-of-life care could be improved in multiple LTC facilities. **Conclusion:** This study provides valuable insights into end-of-life care from multiple stakeholder perspectives. Coordinated interprofessional care teams (i. e., family physicians and ECP), who are accessible to LTC and offer continuity in care have improved end-of-life experiences. Implications for policy include a standardized palliative care team and room, more educational sessions for families regarding end-of-life, and continuing improvements with interprofessional communication and collaboration.

### W62697 **Addressing Medication Discrepancies at the Hospital to Community Transition Through a Community-Based Medication Reconciliation System**

**14:30-14:40** *Allan L. Bailey, MD, CCFP, Edmonton, AB; Kris McKeown, PhD, Spruce Grove, AB; Grace Moe, MSc, PCMH-CCE, Spruce Grove, AB*  
**ROOM / SALLE : 205C**

**Context:** Developing strategies to address medication errors occurring after hospital discharge may reduce patient harm. **Objective:** The objective of the Westview Physician Collaborative Community-based Medication Reconciliation System (CMR) was to identify, ameliorate, and reduce medication errors occurring after hospital discharge. **Design:** A pharmacist-led home visit occurring within 72 hours of hospital discharge identified and addressed medication errors and medication categories associated with these errors. **Participants:** Seventy-seven patients admitted to WestView Health Centre in Stony Plain, Alberta between November 1, 2008 and June 30, 2010 were recruited for study participation. The study recruited patients who were 18 years of age or older and who were prescribed at least one medication at hospital discharge. Patients who were cognitively impaired, younger than 18 years of age, residents of continuing care facilities, non-residents of the Edmonton metropolitan area, having language barriers, or First Nations persons (provincial home care data is not available for First Nations patients) were excluded from study participation. **Intervention:** A pharmacist-led home intervention was conducted within 72 hours after hospital discharge to identify and address medication errors encountered in the patients' home. **Outcome measures:** the pharmacist identified patient level and system level occurrences associated with medication errors during the home visit. Medication categories associated with medication errors during the home visit were also identified. **Results:** Fifty-two percent of patients who received the pharmacist-led home visit were associated with at least one medication error. A lack of patient knowledge regarding how to take a medication(s) was the most frequently noted patient level occurrence associated with medication errors. At the system level, incomplete, inaccurate, or illegible discharge instructions were most frequently associated with medication errors. The most frequent intervention undertaken by pharmacists to address medication errors entailed discussing medication errors with the patients' family physician. Finally, more frequently prescribed medications at hospital discharge were significantly correlated with medications associated with errors encountered during the home visit. **Conclusion:** The CMR successfully identified patient and system level occurrences associated with medication errors. Interventions were subsequently initiated to address these errors. Finally, medication categories more likely associated with medication errors were successfully identified.

### W60354 **A Practice Audit Can Improve Primary Care Provider Knowledge, Attitudes, and Behaviours Towards Chronic Hepatitis B: Results of a nationwide study**

**14:30-14:40** *Hemant Shah, MD, MScCH, HPTE, Toronto, ON; Jean Palmart, Advisory Physicians, BC*  
**ROOM / SALLE : 206A**

**Context:** Knowledge levels amongst primary care providers (PCPs) about Hepatitis B (CHB) are low[1]. Practice audits can improve outcomes in other diseases but are not studied in viral hepatitis[2]. **Objective:** We conducted an evaluation of the impact of a practice audit and individualized feedback on PCPs knowledge, behaviours, and attitudes regarding CHB. **Design:** A chart review characterizing CHB patients according to guidelines was performed[3]. A qualitative interview and quantitative survey was administered at the time of site initiation (wave 1), immediately after delivery of audit feedback (wave 2), and 6 months post-feedback (wave 3). We evaluated several CHB care domains spanning vaccination to treatment. Descriptive statistics and grounded theory analysis were performed. **Participants:** The study was conducted

at 14 Canadian clinics, with 17 PCPs. **Results:** 43,675 patient charts were audited. The analysis of adherence to Canadian CHB guidelines by these primary care providers demonstrates it is poor and have been reported elsewhere. Qualitative analysis demonstrated that PCPs became more likely to offer vaccinations and screen for CHB, implemented systems to identify at-risk patients, and sent fewer specialist referrals. PCPs declared patient care was improved and therapy was initiated sooner if needed due to more appropriate referral. Perceived knowledge levels remained low regarding cirrhosis recognition and management, but increased in all CHB-specific domains (table 1). A 15-point knowledge quiz score did not change between waves 1 to 3 (range 8.9-9.2). **Conclusion:** A practice audit followed by individual provider feedback can result in impressive attitudinal and behavioural changes regarding CHB, and incremental knowledge improvement. Practice audits are a useful tool to improve the quality of primary care for CHB, and possibly patient outcomes. **References:** 1. Sam JJ et al. (2011) Hepatitis B learning needs assessment of family medicine trainees in Canada: results of a nationwide survey. *Can J Gastroenterol* 25: 127-134. 2. Ivers N et al. (2012) Audit and feedback: effects on professional practice and healthcare outcomes. *Cochrane Database Syst Rev* 6: CD000259. 3. Sherman M et al. (2007) Management of chronic hepatitis B: consensus guidelines. *Can J Gastroenterol* 21 Suppl C: 25C-34C.

### W62768 Effect of Intracervical Xylocaine Prior to Intrauterine System Insertion in Primary Care

14:30-14:40 Ainsley Moore, MD, MSc, CFPC; Cara Sterling, HBSc, MD; Kayla Vale, MD

ROOM / SALLE : 206B

**Context:** There is evidence that intracervical injection of local anesthetic reduces pain at various stages during intrauterine system (IUS) insertion, although this is not routine practice in primary care, and moreover has not been evaluated in the primary care setting. **Objective:** The objective of this study was to examine the effects of intracervical anesthetic (Xylocaine) prior to IUS placement on patients' perception of pain and physicians' perception of ease of insertion within a primary care setting. **Design:** We used a prospective observational study design. **Participants:** All women seeking an IUS at Stonechurch Family Health Centre from April 2013 to February 2014. A total of 65 patients completed the study. **Intervention:** Patients reported their level of pain using a numeric rating score (0 = no pain, 100 = worst pain imaginable) at three points during the insertion: prior to procedure, at tenaculum placement, and during IUS insertion. Physicians reported ease of insertion using a numeric rating scale (0 = easy, 100 = extremely difficult). **Outcome measures:** 1) Difference in pain rating scores with intracervical xylocaine use compared with no xylocaine. 2) Difference in ease of insertion rating scores with intracervical xylocaine use compared to no xylocaine. **Results:** Patients receiving intracervical xylocaine reported significant reduction in pain at the time of tenaculum placement ( $p=0.0024$ ) but not during IUS insertion ( $p=0.77402$ ). Provider-reported ease of insertion was not significantly reduced with xylocaine use ( $p=0.5404$ ). **Conclusion:** The results of this study indicate that providing intracervical anesthetic significantly reduces patients' perceived pain during tenaculum placement but not during IUS insertion, nor does it influence providers' ease of insertion. While the additional step of providing intracervical anesthetic may prolong the procedure, there may be significant benefit to patient comfort during the procedure, and thus should be considered during IUS insertion in the primary care setting. 1445-1455

### W63303 What Medications Are Used for Medical Aid in Dying? A scoping review

14:45-14:55 Antoine Boivin, MD, PhD, Montreal, QC; Yi-Sheng Chao, PhD, Postdoctoral student, Longueuil, QC;

Genevieve Garnon, PhD (cand.), Longueuil, QC; Isabelle Marcoux, PhD, Pr, Ottawa, ON

ROOM / SALLE : 205B

**Context:** Legislation proposals are being debated at the provincial and federal levels to authorize the intentional use of lethal drugs by physicians upon the request of terminally ill patients. Considerable uncertainty exist as to the practical consequences of such legislation on clinical practice, as well as on the actual acts that physicians would be asked to perform. This issue is important for family physicians, as they provide most of end-of-life care in Canada. **Objective:** Review what evidence is available on the drugs used for physician-assisted death. **Methods:** We conducted a scoping review of the empirical literature on the intentional use of lethal drugs by physicians. MEDLINE, EMBASE, CINAHL, and Google Scholar searches were supplemented by expert consultation and hand-searching of reference lists using the terms "euthanasia," "assisted suicide," "medical aid in dying," "physician assisted death," and "end-of-life decisions." Two research assistants extracted data on study methods, the type of drugs used, assessment of their lethal potential, and the policy context where studies were performed. **Results:** We identified 333 empirical studies on the intentional use of lethal drugs by physicians conducted in 19 countries, including jurisdictions where such practices are legal and where they are prohibited. Twenty studies included data on the type of drugs used with the intention to cause patients' death. In all studied countries, the most frequent drugs used by physicians are opioids and sedatives used above what is needed for pain and symptom control. In the Netherlands, medications recommended in human euthanasia and assisted suicide protocols (barbiturates with or without neuromuscular blockers) are used in approximately 30% of cases. Up to 76% of drugs used by physicians with the intention to cause patients' death have low lethal potential. **Conclusion:** Opioids and sedatives used above what is needed for pain and symptom control are the most frequent drugs used by physicians with the intention to cause patients' death. The majority of drugs used by physicians have a low potential to actually cause patients' death, and can have other indications for symptom management.

### W62640 Drug Samples Utilization in Family Medicine Teaching Units of the Québec-1 PBRN

14:45-14:55 Marie-Thérèse Lussier, MD, CCFP, FCFP, Montréal, QC; Michel Labrecque, MD, PhD, CCFP, FCFP, Québec, QC;

Andrea Lessard, MD, MSc, CCFP, Chicoutimi, QC; Pierre Pluye, MD, PhD, Montréal, QC;

Roland Grad, MD, MSc, CCFP, Montréal, QC; Caroline Rhéaume, MD, PhD, FFPC, Québec, QC;

Fatoumata Binta Diallo, PhD, Laval, QC; Tarek Bouhali, PhD, Chicoutimi, QC; Justin Gagnon, MA, Laval, QC;

Edith Omon, MD, Montréal, QC

ROOM / SALLE : 205C

**Context:** Drug samples may present benefits for patients, but they can also pose health risks to them, influence healthcare providers' (HCPs') prescribing behaviour, and contribute to an increase in healthcare costs by promoting the prescription of newly patented drugs. **Objective:** To describe the use and management of drug samples in family medicine teaching units (FMTUs) in the province of Québec. **Design:** Descriptive cross-sectional study. **Participants:** HCPs either managing or handing out drug samples in 42 FMTUs. **Instruments:** Two self-administered surveys were completed by drug sample managers ( $n=49$ ) and drug sample dispensers ( $n=859$ ). **Results:** Of the 42 FMTUs, 33 keep drug samples, with 23 providing a common storage space for them. Access to this storage cabinet is unsupervised in 30% of FMTUs. A nurse or pharmacist manages the drug samples in 17 of the 33 FMTUs; more than half the FMTUs (21/33) report having a written local or regional policy on drug samples, yet only a quarter of respondents know about its existence. A majority of respondents (67.6%) use drug samples in their practices. Half (51.1%) of them provide samples to patients at least occasionally, even if it is not their first choice drug. The three most frequently reported reasons for giving a drug sample are: monetary (84.5%), to check tolerability (68.2%), or to provide rapid pain relief (50.9%). Documenting use of a sample in the patient's chart and referring patients to the community pharmacist is an infrequent practice (36% of respondents). **Discussion:** This Québec-1 network study is the first involving the four university PBRNs of the province. Despite existing written policies, drug sample management and use appears to be suboptimal in FMTUs in Québec. Non-continuity in pharmaceutical care for patients is of concern. The potential influence on the prescribing behaviours of all FM graduates in Québec appears significant. **Conclusion:** These results will inform a province-wide knowledge transfer activity through the collaboration of our group with the

Collège des médecins du Québec. The next step involves producing provincial practice guidelines for the optimal management and use of drug samples in community clinics.

### W55579 Profession and Conflict of Interest of Contributors to Canadian Primary Care Guidelines

14:45-14:55

*G. Michael Allan, MD, CCFP; Michael R. Kolber, MD, CCFP, MSc; Christina Korownyk, MD, CCFP; Roni Kraut; Aven Crawshaw; Ben Vandermeer*

ROOM / SALLE : 206A

**Context:** Guidelines have been accused of heavy reliance on expert opinion with little grounding in the complexity of primary care but no research examines this. **Objective:** Determine the profession of guideline contributors, variables that influence participation of contributors, and the presence of conflict of interest. **Design:** Qualitative Descriptive Analysis. **Participants:** Canadian primary care guidelines (and their contributors) identified from the Canadian Medical Association website. Three family doctors independently assessed guidelines for relevance to family physician practice. **Intervention/Instrument:** Two independent data extractors reviewed each guideline and searched for profession using predefined process. **Outcome measures:** Profession of guideline participants (author or committee member), conflict of interest (availability in CPG and for authors when available), funding of guideline, and location of authors. **Results:** The original list included 296 guidelines but 65 were duplicates and 35 had little relevance to family medicine. Many of the remaining 196 were subsections of larger guidelines, leaving 119 unique guidelines. Conflict of interest was not available anywhere in the guideline for 82 of the 119 (69%). Of the 196 guidelines (and subsections), 20 did not provide contributor information. There were 2495 contributors (authors and committee members) on the remaining 176 guidelines: 423 (17%) family physicians, 1343 (54%) specialists, 139 (6%) nurses, 75 (3%) pharmacists, 269 (11%) other clinicians, 203 (8%) non-clinicians, and 37 (2%) unknown. National guidelines engaged 14% family physicians and 58% specialists, while provincial guidelines used 31% family physicians and 37% specialists. Industry-funded guidelines used 8% family physicians and 69% specialists, while non-industry funded guidelines used 20% family physicians and 50% specialists. When conflict of interest was reported it was most common in specialist (49%), pharmacists (30%), family physicians (28%), and remaining groups 10% or less. **Conclusion:** Among contributors to Canadian primary care guidelines, specialists outnumber all other healthcare providers combined and are over three times more common than family physicians. National (versus provincial) guidelines and those with industry funding have more specialists and fewer family doctors. Conflict of interest is provided in the minority of guidelines but among those, specialists were more likely to report a conflict of interest than any other profession.

### W57610 Perspectives About Spirometry and Knowledge of Spirometric Diagnostic Criteria Among Primary Care Physicians

14:45-14:55

*Anthony D'Urzo, MD, MSc, BPHE, CCFP, FCFP, Toronto, ON; Prateek Sehgal, MD (cand.), Toronto, ON*

ROOM / SALLE : 206B

**Background:** Spirometry use in the management of patients with asthma and COPD has been indicated by clinical care guidelines. However, it remains relatively underutilized by family physicians. **Aims:** To gather information on family physician (FP) perspectives on spirometry use and spirometry diagnostic criteria (SDC) for asthma and COPD. **Methods:** Data were gathered among 88 FPs attending standardized workshops in Canada between 2011 and 2013. Workshops consisted of several components: 1) 10 questions regarding perspectives on spirometry with 4 SDC questions, 2) Didactic session on spirometry interpretation and SDC, and 3) The same 4 questions on SDC to assess the impact of the training session. Statistical analyses were performed to evaluate FP spirometry perspectives as well as the effect of a training session on SDC knowledge. Data were obtained in real time and anonymously using remote data capture devices; a strategy that would minimize response bias related to data gathered by paper mail or online surveys. This information may provide important insight for promoting both optimal management strategies and directions for future research in asthma and COPD diagnosis. **Results:** 61% of FPs were "not very"/"not at all" comfortable with spirometry test administration. Only 9% of FPs were "very"/"extremely confident" in spirometry test interpretation. These variables were not strongly correlated to physician knowledge of SDC ( $p=0.363$ ). While the majority of physicians indicated that they found spirometry useful in clinical practice, 75% of physicians reported that they did not have same-day access to spirometry testing. Prior to component 2, more respondents answered question 7, related to asthma diagnostic criteria (69%), correctly compared with question 8, related to COPD diagnostic criteria (51%), [ $X^2 = 4.78, p=0.029$ ]. Physician knowledge of SDC improved significantly following the training session using 2 metrics: 1) number of physicians who answered at least  $\frac{3}{4}$  of the questions correctly ( $p=0.022$ ) and 2) mean number of correct answers ( $p=0.008$ ). **Conclusion:** FPs appear to be uncomfortable in performing spirometry tests, lack confidence in spirometry interpretation, and demonstrated knowledge gaps relating to awareness of SDC for asthma and COPD. Our findings highlight a need to promote greater access to same-day spirometry and awareness of spirometry interpretation strategies, including diagnostic criteria for both asthma and COPD among primary care physicians.

### W59727 Évaluation d'un atelier de formation sur l'utilisation du dossier médical électronique par les médecins de famille

15:15-15:25

*Marie-Pierre Gagnon, PhD, Québec, QC; Jean-Paul Fortin, MD, CSPQ, MPH, MBA, Québec, QC; Réjean Roy, MSc, Montréal, QC; Liette D'Amours, BA, Montréal, QC; Marie Desmartis, MA, Québec, QC*

ROOM / SALLE : 205A

**Contexte :** Afin de favoriser l'acquisition et l'utilisation du dossier médical électronique (DMÉ) par les médecins de famille, des ateliers de formation ont été développés dans le cadre du Programme québécois d'adoption des dossiers médicaux électroniques. Le premier de ces ateliers avait pour but de familiariser les médecins aux approches choisies et aux outils qui s'étaient avérés gagnants au sein des cliniques ayant déjà implanté le DMÉ. Il incluait l'avis d'experts, le témoignage de collègues utilisateurs du DMÉ et une intervention de courtage de connaissances. **Objectif :** Évaluer l'impact d'un atelier de familiarisation au DMÉ, conçu pour les médecins de famille, sur leur intention d'adopter le DMÉ dans leur pratique. **Plan :** Questionnaire avant/après. **Participants :** Médecins de famille ayant participé au premier atelier de la FMOQ, tenu à six reprises entre le 5 février et le 18 juin 2013. **Interventions/instrument et mesure des Résultats :** Un court questionnaire basé sur la théorie du comportement planifié était rempli par les participants avant, après, et 6 semaines après l'atelier. Ce questionnaire mesurait l'intention des participants d'utiliser le DMÉ ainsi que les croyances associées à cette intention. **Résultats :** Au total, 88 personnes ont complété au moins un questionnaire, 57 ont répondu aux questionnaires pré- et post-atelier, et 33 ont rempli le questionnaire aux trois temps de mesure. Avant l'atelier, 80 % avaient l'intention d'acquiescer un DMÉ durant la prochaine année. Après l'atelier, 89 % avaient cette intention et 91 %, six semaines après. L'attitude face à l'utilisation du DMÉ restait stable dans le temps, alors que la perception de contrôle s'améliorait légèrement, et que la norme sociale perçue et la perception de facteurs facilitant l'utilisation s'améliorait davantage. Ni le genre ni le sexe n'étaient associés à l'intention. **Conclusion :** Cette évaluation montre que les ateliers ont eu une influence sur l'intention des médecins d'utiliser un DMÉ. Les facteurs qui expliquent l'intention d'adopter le DMÉ peuvent varier dans le temps, mais les aspects interpersonnels et organisationnels semblent les plus importants. Toutefois, l'acquisition de connaissances ne suffit pas à changer les pratiques entourant l'utilisation des DMÉ. Il importe de rejoindre les futurs utilisateurs dans leur milieu.



**W63401 Impact of the 2012 Ontario Cervical Screening Guidelines on Sexually Transmitted Infection Screening**

15:15-15:25 Tali Bogler, MD, Toronto, ON; Allison Farber, MD, Toronto, ON; Sheila Wijayasinghe, MD, CCFP, Toronto, ON; Richard Glazier, MD, MPH, CCFP, Toronto, ON; Charlie Guiang, MD, CCFP, Toronto, ON

ROOM / SALLE : 205B

**Context:** In May 2012, Cancer Care Ontario released new cervical cancer screening guidelines, which recommended screening sexually active women starting at age 21 and every 3 years thereafter. The previous 2005 guidelines recommended screening within 3 years of onset of sexual activity, and annually thereafter until 3 consecutive negative results. Historically, primary care visits for Papanicolaou testing have provided family physicians with an opportunity to explore patients' sexual health, including sexually transmitted infection (STI) screening. **Objective:** To investigate the impact of the updated cervical cancer screening guidelines on rates of STI screening in primary care. **Design:** Retrospective chart review. **Participants:** Females aged 19-25 who had at least one visit with a physician at 5 academic family practice units during a 12-month period before (May 2011 to May 2012) or after (November 2012 to November 2013) the updated guidelines. We excluded women who were symptomatic at the time of screening, pregnant, or who required yearly or individualized screening intervals (e.g., HIV-positive, immunocompromised, or abnormal Pap results). **Instrument:** Based on a random sample of patients, 200 women were included in the study. Pap tests and STI screens were recorded from the electronic medical record for those patients seen during the 12 month period before or after the new guidelines. The second time period started 6 months after the release of the new guidelines to allow for uptake into practice. **Outcome measures:** The primary outcome measures were chlamydia and/or gonorrhea screening and results, collected either by urine or swabs, during the first or second time period. **Results:** During the first time period, 42/100 women had Pap smears and 40/100 underwent STI screening. In the second time period, 17/100 women had Pap smears and 20/100 women received STI screening. The odds of undergoing STI screening in the second time period compared with the first time period, was 0.5 (95% confidence interval, 0.27-0.92,  $p = 0.003$ ). **Conclusion:** Implementation of the 2012 cervical cancer screening guidelines was associated with lower rates of STI screening in the primary care setting. Primary care physicians should screen at-risk women for STIs at any clinical encounter and consider moving towards screening using urine-based testing.

**W59451 Impact of a 3-Hour Workshop on Self-Perceived Abilities and Enjoyment of Dementia Care**

15:15-15:25 Linda Lee, MD, MCISc(FM), CCFP, FCFP, Kitchener, ON; Loretta Hillier, MA, London, ON; Wayne Weston, MD, CCFP, FCFP, London, ON

ROOM / SALLE : 205C

**Context:** Dementia, with its complex medical, psychological, and behavioural sequelae, is challenging to manage in primary care, often resulting in perceptions of this area of practice as problematic. A comprehensive 3-hour continuing medical education (CME) workshop has been developed to improve primary care clinicians' knowledge and skills in dementia care. **Objective:** To explore the impact of a CME workshop on dementia care on self-perceived abilities in dementia care and enjoyment derived from caring for patients with cognitive impairment. **Design:** Three months following the workshop, participants completed a survey to assess self-perceived changes in knowledge of dementia care, quality of care provided, and level of enjoyment with dementia care as a result of this workshop. **Participants:** 163 clinicians (80 physicians, 11 nurse practitioners) participated in eight dementia workshops; 91 follow-up surveys were completed. **Intervention:** A three-hour dementia care workshop focusing on the use of a structured clinical reasoning approach to assessment and management, including topics of delirium, depression, differentiation between normal aging, mild cognitive impairment and dementia, clinical differentiation of types of dementia, and drug and non-drug management. **Outcome measures:** 5-point rating scales were used to assess the changes in knowledge of assessment and management of cognitive impairment and level of enjoyment derived from working with patients with dementia (less now to more now) and provision of quality (much improved to much worsened). **Results:** Compared with prior to this workshop, the majority of participants reported they were now better able to assess (95%) and manage (96%) dementia and 87% reported that the quality of dementia care they provide has improved (68% "improved"; 19% "much improved"). Similarly, in comparison to prior to this workshop, 75% reported that dementia care was now more enjoyable. There were no significant differences in ratings between physicians and nurse practitioners. **Conclusion:** This dementia care CME initiative resulted in self-perceived improvements in knowledge and provision of quality dementia care, as well as increased enjoyment in working with patients with dementia.

**W63379 Impact of Patient's Online Access to Lab Results: Primary care utilization and patient experience**

15:15-15:25 Chad A Leaver, BA, MSc, MBA (cand.); Simon Hagens, MBA

ROOM / SALLE : 206A

**Context:** In Canada, British Columbia is at the forefront of consumer digital health technologies such as providing patients with online access to their laboratory results; other initiatives across Canada are gaining momentum. No current evidence exists in the Canadian context on the impact of patient access to lab results. **Objective:** To assess how patient access to lab results impacts utilization of primary care services and patient experience. **Design:** A mixed methodology that included telephone interviews with a small convenience sample of 20 physicians in British Columbia, Canada, and an online survey of residents who had had a lab test conducted in the past 12 months. The cohort of patients who viewed their lab result(s) online was recruited through a provider of online test results, and the comparison cohort (patients who did not view results online) through a general population research panel. The survey instrument included measures for health service utilization before and after learning lab results, comprehension, anxiety, empowerment, and overall satisfaction. Data were analyzed using descriptive statistics and logistic regression, and thematic analysis on the qualitative data. **Results:** A total of 2,047 surveys were completed by BC residents who viewed lab results online in the past year, and 1,245 residents completed the comparison cohort survey (18% vs. 45% response rates, respectively). Online access was significantly associated ( $p < .05$ ) with knowing the result of their most recent test, waiting only a few days for the result, and being less likely to contact their doctor while waiting. Reported rates of lab test-related anxiety were low for both groups, but service users who had frequent tests reported significantly lower post-test anxiety than their counterparts in the comparison group; this echoed physicians' comments that patients with chronic health conditions had the potential to benefit most from direct lab access services. **Conclusion:** Canadians are beginning to have electronic access to their health information. Online access to laboratory results is timelier, does not appear to contribute to contact burden with regular place of care, and supports patient self-management. Understanding the effects for patients and health system utilization may help shape emerging consumer health solutions.

**W62835 Case Finding and Managing Chronic Obstructive Pulmonary Disease**

15:15-15:25 Cathy Faulds, MD, CCFP, FCFP, ABPHM, London, ON; Emily Stoll, BSc, London, ON; Adriana Pietrzak, BMSc, London, ON

ROOM / SALLE : 206B

Although preventable and treatable, chronic obstructive pulmonary disease (COPD) remains the fourth leading cause of death in Canada and the only chronic disease with increasing mortality. The aim of the Faulds Medicine Professional Corporation (FMPC) was to improve outcomes for patients with COPD, while ensuring our care is patient-centered. To achieve this, FMPC created a program centred on evidence-based guidelines for case-finding and management of individuals with COPD. This program allows for improved patient outcomes through the utilization of physicians, allied health professionals, and community resources. The success of this program was measured



through a program evaluation design. FMPC began with case finding – using the Canadian Lung Health Test and spirometry – in all patients over age 40 with a smoking history, to achieve a roster of 62 patients. Customized EMR templates, alerts, and flowsheets were used in patients' charts, while a spreadsheet displayed all outcome, process, and balance measures for each patient. The data was reviewed monthly to ensure completeness of care and Quality Improvement and our measures were reported monthly to share best practices and statistics at the provincial level. Outcome measures to track the health of our COPD population included smoking status, spirometry values, MRC scores, and number and frequency of exacerbations. We also tracked process measures and balance measures – such as referrals, ER visits, and hospital admissions – to examine the effects the program had on system resources. Notable results include a 38% increase in roster size due to case finding and a shift in spirometry measurement, such that 98% of measurements are now obtained through office-based spirometry. The number of patients with no exacerbations since their last visit increased from 40% to 79%, while the number of patients with multiple exacerbations decreased from 10.64% to 6.38%. Approximately a third of patients have a decreased MRC grade. This program has been successful in improving patient outcomes and has resulted in system cost savings due to low numbers of COPD-related ER visits and hospital admissions, and reduced hospital-based PFT referrals. Key lessons from this program were the value of the utilization of a community-based team approach and evidence-based guidelines.

#### Top 4 Oral Presentations / Les 4 meilleures présentations orales

**W57662** **Inter-Professional Learning Using Persons With Developmental Disability as Simulated Patients**  
**1515-1525** *Brian Hennen, MD, MA, CCFP, FCFP, FRCGP, Dartmouth, NS; Elizabeth Kay-Raining Bird, PhD, Halifax, NS; Paula Hutchinson, PhD, Halifax, NS; Anne Godden-Webster, MSc, Halifax, NS; Karen McNeil, MD, CCFP, FCFP, Halifax, NS; Sandra Witherbee, Halifax, NS; Judy Macdonald, PhD, Halifax, NS; Sarah Shea, MD, FRCPS, Halifax, NS; Andrea Rideout, MD, CCFP, FCFP, Halifax, NS; Dianne Mackenzie, MSc, Halifax, NS; Lisa Doucette, BScN, Yarmouth, NS; Bruce Holmes, Halifax, NS*  
**ROOM / SALLE : 2101**

Inter-professional learning across the health and social professions is enhanced when based on clinical models. Persons with Developmental Disabilities offer one such model when trained as simulated patients. This presentation assesses the model's effectiveness. For two consecutive years, members of the Faculty of Medicine and Faculty of Health Professions at Dalhousie University have presented an inter-professional, elective mini-course for first- and second-year students. Its learning objectives are: to name and apply strategies for communicating with persons with developmental disabilities in order to understand their health priorities, to examine the decision-making and consent process for persons with developmental disabilities, and to state the importance of inter-professional communication and person-directed care with persons with developmental disabilities. Thirty-six (year one) and 46 students (year two) completed three 1.5 hour sessions in plenary and small group formats. Students from Physiotherapy, Medicine, Occupational Therapy, Nursing, Social Work, Recreation and Leisure, Nursing, Optometry Associate, and Audiology took part. Faculty came from the Schools of Human Communication Disorder, Occupational Therapy, Social Work, Physiotherapy, Health and Human Performance, and departments of Family Medicine and Pediatrics. Students' evaluation of the first-year course involved eleven statements for rating on a four-point scale (strongly disagree to strongly agree) and open-ended invitations to suggest improvements and generally comment. Statement examples: "the expectations of students were clear; the level of difficulty of the information was about right; as the result of this IPHE session, I feel more confident in my capacity to collaborate with other professions." The responses informed modifications in the second year of the program. Feedback from the simulated patients and family members indicated their preference for using as much of their own personal history as possible, satisfaction in contributing to teaching of health profession students, and enjoyment in acting assigned roles. This presentation summarizes the course's development and the experiences of its implementation. Participants considering inter-professional teaching may expect to be able to identify strengths and challenges of inter-professional curriculum development, the value of employing persons with developmental disabilities as simulated patients and the advantages of using their issues as a focus in applying inter-professional learning, and the administrative and planning challenges in delivering an inter-professional program.

**W63039** **The McGill M. Sc. Program in Family Medicine: Who are our students and where do they end up?**  
**15:15-15:25** *Jamie DeMore, MA, Montreal, QC; Gillian Bartlett, PhD, Montreal, QC; Alexandra Dimmer, MSc (cand.), Montreal, QC; Alexandra Fletcher, MSc (cand.), Montreal, QC; Roland Grad, MD, CM, CCFP, MSc, Montreal, QC; Peter Nugus, PhD, Montreal, QC; Pierre Pluye, MD, PhD, Montreal, QC; Charo Rodríguez, MD, PhD; Jon Salsberg, MA, PhD (cand.); Pierre-Paul Tellier, MD, CM, CCFP; Isabelle Vedel, MD, PhD; Mark Ware, MBBS, CCFP, FCFP, MSc; Mark Yaffe, BA, MDCM, CCFP, MCISc, Montreal, QC*  
**ROOM / SALLE : 2104AB**

**Context:** There has been a strong demand to increase research capacity in family medicine; however, concerns exist regarding the rigor and specificity of training available. To address these challenges, a graduate program in Family Medicine Research was developed at McGill University that includes courses in quantitative research methods, qualitative research methods, and mixed methods research, while also highlighting the importance of knowledge translation, community involvement, and participatory research. **Objective:** To investigate where our graduate students are coming from and what they do after they graduate. **Design:** Descriptive study. **Participants:** Database of 300 interested applicants and 33 enrolled M. Sc. students, of whom 14 students graduated in the last 5 years (graduation rate of 93.3%). **Intervention/Measures:** Information from our database for tracking student interest, enrolment, graduation rates, and post-graduation career paths. **Results:** The backgrounds of our graduate students are broad and varied (in descending order): undergraduate students with an interest in family medicine research 52% (17/33); international medical graduates (IMGs) 39% (13/33), third-year residents 6% (2/33), and other health professionals in primary care 3% (1/33). Upon obtaining their Master's, 43% (6/14) took positions as research managers, 21% (3/14) completed or are in the process of completing Canadian family medicine residency programs (i. e., IMGs), 21% (3/14) have enrolled in PhDs; and 15% (2/14) have entered medical school with the intent of becoming family medicine clinician researchers. To date, we have not attracted any practicing family physicians to our graduate program. **Discussion/Conclusion:** Our early data suggests we are preparing our graduates for a broad range of appropriate careers in family medicine. In order to attract practicing family physicians to our program, we have developed a part-time option and, to further address this issue, we believe it is necessary to also create online courses. A rigorous feedback system permits us to make periodic changes to our curriculum and we will continue to monitor the outcomes of this family medicine graduate program, along with our new ad hoc PhD in Family Medicine program.

**W63204** **Perception des médecins sur les facteurs d'adoption de la prescription électronique au Québec**  
**15:30-15:40** *Julie Payne-Gagnon, MA, Québec, QC; Marie-Pierre Gagnon, PhD, Québec, QC; Claude Sicotte, PhD, Montréal, QC*  
**ROOM / SALLE : 205A**

**Contexte :** L'utilisation de médicaments est au cœur des soins de première ligne, mais aussi la cause de plusieurs problèmes de santé. Il est donc important de se pencher sur le processus de prescription de médicaments. **Objectif :** Identifier les facteurs d'adoption perçus par les

médecins de première ligne sur l'implantation et l'adoption d'un système de prescription électronique connecté au Dossier Santé Québec. **Plan** : Nous avons mené une étude qualitative pour identifier les perceptions des médecins concernant l'implantation et l'utilisation de la prescription électronique. **Participants** : Nous avons procédé à un échantillonnage par choix raisonné afin de cerner les plus grands utilisateurs de la prescription électronique. **Intervention** : Nous avons réalisé des entrevues par téléphone et en personne entre février et septembre 2013. Mesure des **Résultats** : Le contenu des entrevues a été résumé par écrit et analysé à l'aide du logiciel NVivo. La codification des données s'est basée sur le Cadre d'adoption clinique. **Constatations** : Au total, douze médecins et cinq gestionnaires de cliniques ont participé à l'étude. Les participants ont affirmé que plusieurs facteurs pouvaient faciliter l'implantation et l'utilisation de la prescription électronique, notamment une bonne formation, un soutien technique, la présence de champions dans leur environnement de travail, l'informatisation des cliniques et les incitatifs financiers. De plus, l'ouverture au changement et la perception des bénéfices étaient perçus comme des facteurs importants dans la perpétuité de l'utilisation de la technologie. Cependant, des barrières ont été identifiées au niveau du manque d'uniformisation dans la planification de l'implantation, les problèmes techniques et de standardisation avec le système ainsi que la présence du papier, seul document légal dans le processus de prescription. **Discussion** : La prescription électronique peut offrir des bénéfices substantiels au processus de prescription dans les cliniques médicales. Cependant, plusieurs problèmes persistent qui posent des barrières à l'utilisation complète de la technologie, particulièrement dans un contexte où plusieurs systèmes sont connectés à une base de données provinciale. **Conclusion** : Cette étude permet une meilleure compréhension des facteurs d'adoption à la prescription électronique perçus par les médecins de cliniques médicales de première ligne au Québec. 1530-1540

### W57104 Equity in Colorectal Cancer Screening: Factors impacting family physician preferences and behaviours

15:30-15:40 Sandy Buchman, MD, CCFP, FCFP; Richard Glazier, MD, CCFP, FCFP, MPH; Linda Rozmovits, DPhil

ROOM / SALLE : 205B

**Context**: ColonCancerCheck (CCC), a Colorectal Cancer (CRC) screening program in Ontario, recommends fecal occult blood testing (FOBT) every two years for average risk individuals age 50+. Colonoscopy is covered by the provincial health plan. Within Toronto, there is significant variation in screening patterns by geographic area and by modality. **Objective**: To explore factors influencing physicians' preferences and behaviour concerning the use of colonoscopy and FOBT for CRC screening in patients at average risk. **Design**: Qualitative description. **Participants**: 29 family physicians working in 9 Family Health Teams (FHTs) in the Toronto Central Local Health Integration Network (TCLHIN). TCLHIN includes areas of high immigration/low income/low screening rates, higher income areas where primary screening through colonoscopy is common, and increased access to private endoscopy clinics. FHTs have electronic medical records (EMRs), inter-professional teams, and management infrastructure, facilitating identification of variables linked to physician preference and behaviour rather than to the absence of structural supports. **Instrument**: Telephone interviews explored physician preferences and behaviour. **Outcome measures**: Thematic analysis of interviews identified key themes. **Findings**: Systematic tracking of patients for CRC screening was absent. There was resentment about the preventive care bonuses being attached only to FOBT; those preferring colonoscopy were not incentivized to change. Physicians discussed both options but conveyed their own preferences in ways likely to influence patient choice. Physicians favouring FOBT generally accepted current supportive evidence and named population-level perspectives, resource management, and lower risk/inconvenience to patients as supporting factors. Concern was expressed about financially-driven promotion of colonoscopy. Those preferring colonoscopy expressed skepticism about evidence supporting FOBT, perceived colonoscopy as superior, and were more focused on individual patients rather than on population-level concerns. FOBT promotion was seen as a short-sighted cost saving measure. Higher income, more educated patients were perceived as more likely to opt for colonoscopy. Lowest income patients were difficult to engage in CRC screening. New models of care delivery were suggested for this group. **Conclusion**: A multitude of administrative, patient-driven, and individual factors influence physician preferences and behaviours with regard to primary CRC screening. Screening strategies recommended by CCC do not appear to be as influential as these other factors.

### W63257 Defining a Typology of the Specialist: Primary care interface using administrative data

15:30-15:40 Claire Kendall, MD, MSc, Ottawa, ON; Jaime Younger, PhD, Ottawa, ON; Monica Taljaard, PhD, Ottawa, ON; William Hogg, Hon BSc, MSc, MCIsc, MDCM, CCFP, FCFP, Ottawa, ON; Richard H. Glazier, MD, MPH Toronto, ON; Douglas G. Manuel, MD, MSc, FRCPC Ottawa, ON

ROOM / SALLE : 205C

**Context**: There has been limited research using health administrative data to explore how primary care providers and specialists share care for patients with chronic disease. As HIV is a complex condition managed primarily in the outpatient setting, it is a useful condition on which to build a typology of this interface. **Objective**: To characterize patterns of care for people living with HIV in Ontario and use the observed patterns to develop a unique typology of current HIV care in Ontario. **Design**: This retrospective, population-based observational study was conducted for the period April 1, 2009 to March 31, 2012. **Population**: A validated case ascertainment algorithm was used to identify people with HIV and receiving care in Ontario, the Canadian province with the highest prevalence of HIV. **Instrument**: We derived a typology of care based on previous frameworks by linking patients to usual sources of primary care and to HIV specialists. We identified 5 possible patterns of care, described as: disorganized care, exclusively primary care, family physician dominated co-management, specialist dominated co-management, and exclusively specialist care. **Outcome measures**: Patient and physician characteristics and outpatient visits by care pattern. **Results**: The prevalence of each care pattern among the 13,480 eligible individuals was as follows: disorganized care 1,149 (8.6%); exclusively primary care 6,094 (52.7%); family-physician-dominated co-management 1,349 (10.0%); specialist-dominated co-management 4,118 (30.5%); and exclusively specialist care 707 (5.2%). Patient characteristics varied among the patterns, with those in specialist-dominated patterns more likely to be younger, female, lower income, and residing rurally, from an immigrant population, and to have lower ascertained co-morbidity. In addition, the characteristics of family physicians varied among the patterns. Patients in both co-management patterns had, on average, approximately twice as many visits as patients in their respective single physician models, as well as different patterns of HIV billing. **Conclusion**: We anticipate this typology can be applied to other chronic conditions and can be used for assessing the impact of different patterns of care on the quality of care and health of individuals with complex conditions.

### W62699 How do Patients Experience Periodic Health Exams?

15:30-15:40 Aileen Roman, MD, Montreal, QC; Daniella Guindi, MD, Montreal, QC; Svetlana Puzhko, MD, MSc, Montreal, QC; Mark Yaffe, MDCM, MCIsc, CCFP, FCFP, Montreal, QC

ROOM / SALLE : 206A

**Context**: Suggested benefits of periodic health exams (PHEs) include opportunity for screening, health promotion, and fostering the doctor-patient relationship. The literature contains little about the PHE from the patient perspective. **Objective**: To explore patients' feelings about, and experience with, the PHE. **Design**: Quantitative, participatory. **Participants**: English- or French-speaking patients aged 18 or over, receiving at least one PHE within the previous 24 months. **Intervention**: A random sample of patients of an urban, hospital-based academic family medicine centre was approached by volunteers (themselves patients of that centre) to self-administer a piloted, bilingual, anonymous 24-item survey on perceptions and experiences with "an annual exam, complete checkup, or periodic health exam," as distinct from a visit

for a new problem or follow-up of an existing one. **Outcome measures:** Likert style questions exploring patients' experiences with PHEs were predominantly derived from 4 validated tools: the National Survey Programme, the Patient Experience Questionnaire, the RSA-R Person in Recovery survey, and the ROSI Consumer Survey 2005. **Results:** Of 196 patients agreeing to participate, 173 were retained in the final data set: female 78.6%; mean age 48.4; mean years of care by the same doctor 5.1; mean number of visits in the preceding 24 months 4.9. More than 90% agreed / strongly agreed their doctors respected them, listened, and informed in clear fashion. 80-90% agreed / strongly agreed their doctors were open to options for care, had concern about both medical and psychosocial issues, and recognized their rights to express worries / concerns, or refuse interventions. 62.5 % agreed/ strongly agreed a purpose of PHE visits was to help doctors know them better as people, while only 39.3% agreed a purpose was for them to get to know the doctors better. **Conclusion:** Patients identified indicators of care suggesting high patient-centredness. Yet only 3/5 endorsed PHEs as important for doctors to get to know them, and fewer (2/5) saw such visits as opportunity for them to get to know the doctors. Patients may not appreciate what may be necessary to foster meaningful doctor-patient encounters.

#### W59802 Addressing Childhood and Youth Obesity in the Primary Care Setting: Are we meeting the challenge?

15:30-15:40 *Matthew Orva, MD, MSc, BScH; Anwar Parbtani, PhD, MD, CCFP, Barrie, ON*

ROOM / SALLE : 206B

**Context:** Childhood obesity is a significant risk factor for multiple chronic diseases in the adulthood. It is estimated that 1.6 million children (32%) in Canada are either obese or overweight. Data from NIH (US) suggests that primary care physicians do not regularly assess childhood obesity, despite specific guidelines. We suspect similar paucity of care in the Canadian primary care practices. The gravity of childhood obesity and suggested lack of systematic assessment for this warranted a study in our community to discern the current childhood obesity assessment pattern. **Objective:** To determine what proportion of children are assessed for childhood obesity in a sample of community primary care practices. **Design:** A retrospective chart review was conducted in 14 primary care practices for visits of children aged 3-17 over a 1-year period. Data collected included number of visits during the period, whether a body mass index (BMI) was recorded or not and whether any interventions related to the BMI value were implemented. Data was assessed using z-statistics and 2 analysis. **Results:** In total, 406 children/youths between 3 and 17 years were registered to these practices. 28% of these children ( $p < 0.001$ ) were never seen during the one-year study period. Of those seen, only 42% (124/293) had a BMI recorded ( $p < 0.001$ ), suggesting that overall, 69% of the total children in the practice did not have any obesity assessment. Of those with a measured BMI ( $n = 124$ ), 49 (39%) were overweight or obese. However, a management strategy was indicated in only 21 of these children/youths ( $p < 0.001$ ). **Conclusion:** Despite guidelines which reinforce the importance of biometric measurements of obesity, primary care physicians are not regularly assessing for childhood obesity. In this study, a large proportion of children (69%) were either not seen at all or did not have any BMI assessment. Even when the obesity or overweight class was identified, a management strategy was considered in less than half of these subjects. This indicates a significant care gap in the management of childhood/youth obesity and warrants appropriate educational programs. Perhaps a formal public health/primary care partnership is required to deal with this major determinant of health.

#### W63426 Clinical Supervisors' Perceived Training Needs to Deliver Elder Care and Teach It to Their Trainees

15:30-15:40 *Anik Giguere, PhD, Quebec, QC; Françoise Proust, PhD, Quebec, QC; Philippe Karazivan, MD, MAEd, Montreal, QC; Bernard Martineau, MD, MA, DPES, Sherbrooke, QC; Charo Rodriguez, MD, PhD, Montreal, QC;*

*Marie Meudec, PhD, Quebec, QC; Michèle Morin, MD, Quebec, QC; France Légaré, MD, PhD, Quebec, QC;*

*Paule Lebel, MD, Montreal, QC*

ROOM / SALLE : 2101

**Context:** While effective elder care is increasingly needed, many clinical supervisors feel ill-equipped to provide the necessary education. **Objective:** To assess clinical supervisors' training needs to deliver and teach elder care in family medicine teaching units (FMTUs) in Quebec. **Design:** Explanatory sequential mixed methodology with four phases: (1) environmental scan of training programs in the departments of family medicine in Quebec; (2) clinical expert panel to determine priority clinical conditions for elder care; (3) survey of supervisors' training needs; (4) semi-structured interviews with supervisors to thoroughly examine their training needs. **Participants:** All clinical supervisors (physicians, nurses, psychologists, and other professions) from 43 FMTUs in Quebec were invited to participate in the survey. A purposive sample of supervisors with extensive training needs for various clinical conditions, as identified through the survey, was invited to participate in the interviews. **Database:** Informed by the results of the environmental scan, the expert panel selected 13 priority clinical conditions for elder care. To prioritize supervisors' training needs to deliver and teach care of these conditions, 352 supervisors (36% of those invited) completed a survey. Using logistic regressions, we evaluated if independent variables (e.g., age, experience, clinical condition, setting) improved the odds that the participant had extensive training needs. Thirteen interviews (53 supervisors) were then audio-recorded, transcribed, and analyzed using a thematic qualitative approach. **Findings:** Compared with office setting, supervisors reported more training needs in long-term care (LTC) and homecare settings, due to patients' more complex conditions, family caregivers' presence, and, for homecare, due to the added challenge of globally assessing patients in their home. Supervisors reported the need for more training in the "behavioural and psychological symptoms of dementia," "depression," "functional decline," and "cognitive disorders." Supervisors found that these clinical conditions were complex to diagnose and manage, especially because of their psychosocial aspects, and due to the need to coordinate care with interprofessional teams and family caregivers. **Discussion and Conclusion:** Mental disorders and functional decline are priorities in elder care training. Training programs developed to address these needs should cover LTC and homecare settings and develop skills to improve communication with other professionals and family caregivers.

#### W63424 Resident Perceptions of the Utility of a Formative Academic Benchmarking Examination

15:30-15:40 *John Chmielek, MD, CCFP, FAAFP, FAWM, Edmonton, AB; Denise Campbell-Scherer, MD, PhD, CCFP, Edmonton, AB;*

*Tanya Barber, MA, Edmonton, AB; Shelley Ross, PhD, Edmonton, AB*

ROOM / SALLE : 2104AB

**Context:** Annual summative academic benchmarking examinations (ABEs) have long been common in family medicine residency programs in the United States. Recently, ABEs have become more commonplace in Canadian family medicine residency programs; however, implementation and application vary across the Canada. In our residency program, we use the US family medicine ABE as a formative exam; residents are encouraged to use the ABE to identify areas of strength and weakness in preparation for studying for CFPC board examinations. **Objective:** To determine the extent to which residents perceive the ABE as useful to their learning at three points in time: before they write the exam, immediately after they write the exam, and immediately after they receive their results. **Design:** Longitudinal (three time points) survey research. **Participants:** All first- and second-year residents in our family medicine residency program ( $n = 167$ ) writing the ABE. **Instrument:** Three self-report questionnaires, comprised of Likert scales and comment boxes. **Outcome measures:** Self-reported perception of the utility of the ABE. **Findings:** One hundred six residents (63%) consented to the study and completed the pre-exam and immediate post-exam questionnaires. Pre-exam: Ninety-three (88%) respondents indicated that the benchmarking exam was useful to them. In the comments, the majority of residents referred to the value of the ABE for identifying areas of strengths and weaknesses. The 12% who felt the



ABE offered little value cited the US origin of the exam and the dissimilarity in question types between the ABE and the CFPC board exams. In the post-exam questionnaire, the majority still saw value in the exam, but the comments included indications that the type of feedback that accompanied the results would be crucial to the value of the exam. More residents also commented on the US origin of the exam. Fifty-four (51%) of residents completed the post-results survey. While the majority felt that the exam was useful to them, 75% felt that “using aggregate benchmark examinations results to guide residency academic programming” was not useful. **Conclusion:** ABEs are perceived as useful by the majority of residents. Work needs to be done to develop a Canadian ABE.

**W62408** **Gestion des échantillons de médicaments à l'Unité de médecine de famille Saint-François d'Assise**  
**15:45-15:55** *Chislaine Tre, MSc, PhD, Ulrich Ifoko, MD, CCMF; Marie Ève Robert; Michel Labrecque, MD, CCMF, FCMF*  
**ROOM 205A**

**Contexte:** L'utilisation des échantillons de médicaments dans les établissements de santé suscite des inquiétudes pour la santé de la population. La plupart des établissements de santé sont dépourvus de politique encadrant l'utilisation de ces échantillons. **Objectif :** L'objectif du projet était de décrire les politiques, les pratiques de gestion et de l'utilisation des échantillons de médicaments à l'Unité de médecine familiale (UMF) Saint-François d'Assise (SFA). **Plan :** étude descriptive transversale en septembre 2013. **Participants :** Utilisateurs potentiels des échantillons (médecins enseignants, résidents et infirmières). Instruments de mesure : Un questionnaire destiné aux utilisateurs potentiels, un questionnaire au gestionnaire des échantillons et un autre pour réaliser l'inventaire des échantillons. **Résultats :** Parmi les 47 utilisateurs potentiels admissibles, 44 (94 %) y ont répondu. Au total, 31 (71 %) des 44 répondants admettent utiliser des échantillons. Les médicaments se retrouvent dans un lieu commun pour tous les utilisateurs. Une infirmière est responsable de la gestion des échantillons. Il n'y a pas de politique de gestion des échantillons de médicaments propre à l'UMF SFA. Il existe une politique au Centre de santé et de services sociaux de la Vieille-Capitale (CSSSVC), méconnue de la presque totalité des répondants et non appliquée dans le milieu. La majorité (80 %) des utilisateurs prélevaient des échantillons à des fins personnelles. La majorité (77 %) des utilisateurs affirmait donner au moins occasionnellement un échantillon à un patient, sans que ce médicament soit leur premier choix. Seulement 39 % des utilisateurs disaient écrire toujours une note dans le dossier des patients et 17 % référer les patients souvent ou toujours à un pharmacien pour qu'il donne des informations sur le médicament remis. Un total de 84 % des répondants appuyait que le Département de médecine familiale et médecine d'urgence de l'Université Laval mette en œuvre une politique sur la gestion et l'utilisation des échantillons de médicaments.

**W60597** **Family Physician Perception of the Usefulness of an Intervention to Improve Continuity of Cancer Care**  
**15:45-15:55** *Michele Aubin, MD, PhD, FCFP, CCFP; Québec, QC; Lucie Vézina, MA, Québec, QC; René Verreault, MD, PhD, FCFP, CCFP, Québec, QC; Lise Fillion, RN, PhD, Québec, QC; Éveline Hudon, MD, MA, Montréal, QC; Sébastien Simard, PhD, Québec, QC; André Tourigny, MD, MPH, Québec, QC; Serge Dumont, PhD, Québec, QC; Serge Daneault, MD, MA, Montréal, QC; Yves Lacasse, MD, FRCPC, MSc, Québec, QC; Audrey Samson, MA, Québec, QC*  
**ROOM / SALLE : 205B**

**Context:** During the cancer treatment phase, family physicians (FPs) are often left out of the follow-up of their patients and communication between FPs and the oncology team is frequently suboptimal. A multi-faceted intervention was implemented to improve interprofessional collaboration and continuity of cancer care. **Objective:** Describe FPs' perception of the usefulness of the multi-faceted intervention and compliance to adopt its components. **Design:** Mail survey to FPs and patient chart review. **Participants:** 103 FPs of patients with lung cancer followed at the ambulatory oncology clinic of the Institut universitaire de cardiologie et de pneumologie de Québec (IUCPQ), from whom 74 responded to the survey. **Intervention:** The intervention included: 1) systematic appointments with FP; 2) 3-month transmission to FP of standardized comprehensive summaries of patients' medical and psychological condition; 3) systematic transmission to the oncology team of patients' information resulting from FP visits; 4) development of a priority access to FP for cancer patients when needed. **Outcome measures:** Proportion of FPs who returned follow-up summaries to the oncology team and FPs' perception of the usefulness of each component of the multi-faceted intervention. **Results:** Almost 3/4 of FPs were compliant to return follow-up summaries to the oncology team, with 46.6% who returned all summaries, and an additional 27.2% who returned all of them but one. Only 13.6% of FPs did not return any summary. Almost all FPs (97%) considered the intervention useful and were favourable to extend it to other types of cancer (95.5%). When questioned on their appreciation of each component of the intervention, most FPs highly valued and recommended to keep in the intervention the standardized summary sent every 3 months by the oncology team (90.9%), the periodic visits with them by their cancer patients (81.8%), and the priority access to them for emergencies (80.3%). But, fewer (63.6%) recommended to maintain the systematic summary sent by them to the oncology team. **Conclusion:** This multi-faceted intervention was perceived useful by most participating FPs and could help to improve interprofessional collaboration in the follow-up of patients with cancer.

**W60794** **Intimate Partner Violence: Assessment of family physicians' awareness, preparedness, and approaches**  
**15:45-15:55** *C. Gall, BMSc (Hons), MD; J. Shaw, BSc (Hons), MSc, MD; E. Kiss, MD, CCFP; R. Raiciu, BA (Hons), MSc; A. Parbtani, PhD, MD, CCFP*  
**ROOM / SALLE: 205C**

**Context:** Intimate partner violence (IPV) is a ubiquitous social evil and a major negative determinant of health. In Canada, one-third of all police reported violent crimes relate to IPV, with 80% of victims being females. Sadly, the children of IPV victims also suffer debilitating health/social consequences that last well into adulthood. **Rationale:** It has been suggested that early identification of IPV or potential for IPV can play a significant role in halting or preventing the abuse. To this effect, the role of primary care physicians is deemed crucial. However, many studies indicate that physicians generally feel ill equipped to manage IPV. This prompted us to assess the status of IPV management in our community primary care setting. **Methods:** An eighteen-item questionnaire (modified from previously validated tool) was administered to physicians to gather information on awareness, preparedness, and approaches regarding IPV and training about IPV. Statistics: Ordinal data (means of scores from 1-5) were assessed using t-test and nominal data (Yes/No) were assessed by  $\chi^2$ . **Results:** To-date, 30 physicians have participated in the study (15 males, 15 females, from a pool of 80; 37.5%). **Awareness:** Majority of physicians agreed that IPV is a major health determinant, and that healthcare providers have a responsibility to screen for IPV (29/30; 4.2  $\pm$  0.8). **Preparedness and Approaches:** Responses indicated deficit in these areas. Most physicians (73%) did not conduct routine IPV enquiry. However, female physicians used a routine set of questions if/when they did screen for IPV (2.8  $\pm$  1.5 vs males: 1.8  $\pm$  1.0;  $p=0.04$ ). **Education:** Majority (70%) indicated little or no training on IPV, but female physicians were more aware of community-based programs (2.5  $\pm$  0.7 vs 1.9  $\pm$  0.8;  $p<0.04$ ). All physicians agreed that more education would improve IPV management (4.5  $\pm$  0.5;  $p<0.001$ ). **Conclusion:** Most physicians recognized IPV as a major health determinant, but there existed a care-gap in terms of preparedness and approach, as well as adequate training to deal with it. The study noted physicians' willingness to embrace more education on IPV, a signal that such initiatives would be well received.



**W63231 How Prevalent Are “Meet and Greet” Screening Appointments for New Patients? Implications for Access Equity**

15:45-15:55

*Emily Gard Marshall, PhD, Halifax, NS; Beverley Lawson, MSc, Halifax, NS; Judy Chisholm, BN, MN, Halifax, NS; Richard Gibson, MD, Halifax, NS; Nirupa Varatharasan, MSc, Halifax, NS; Frederick Burge, MD, MSc, FCFP***ROOM / SALLE : 206A**

**Context:** Equitable access to primary care is fundamental to Canadian healthcare. Although there are anecdotal reports of practices screening prospective patients, often called a “meet and greet,” this is discouraged or qualified as to their acceptable use by Colleges of Physicians and Surgeons. To date, there is no empirical evidence on the prevalence of screening practices, their implementation or consequences for primary care accessibility. **Objective:** To determine the prevalence of family physicians and primary care nurse practitioners (NPs) in Nova Scotia who require prospective patients to attend a screening “meet and greet” appointment. Population Survey. **Design:** Telephone survey to every FP and primary care NP office in Nova Scotia. **Participants:** Person answering provider office phone (N=602 completed/780 offices). **Primary outcome:** Proportion of providers requiring screening appointments for new patients. **Secondary outcomes:** Whether screening appointments—and in what context—lead to provider and/or patients not proceeding with care. **Results:** Almost one-third, (29.2%, n=176) of NS primary care providers require a screening appointment for new patients. In almost half of practices requiring a screening appointment (44.3%, n=78), the provider decided not to continue as a prospective patient’s provider following a “meet and greet,” while for 36.9% (n=65) of providers the patient chose to discontinue. **Discussion:** This first population-based study on this topic found screening practices with “meet and greet” appointments for prospective new patients are common in Nova Scotia. Moreover, there are consequences for accessibility to primary care with both providers and prospective patients deciding not to proceed with care after screening. **Conclusion:** In a climate where fewer providers are accepting new patients, there are ethical considerations when a screening appointment for prospective patients is required. While they may help ensure a good fit between patient needs and provider capacity, it is imperative to safeguard equity in access to care.

**W63382 In the Loop: Primary care providers’ role in newborn screening for cystic fibrosis**

15:45-15:55

*June C. Carroll, MD, CCFP, Toronto, ON; Robin Z. Hayeems, PhD, Toronto, ON; Fiona A. Miller, PhD, Toronto, ON; Carolyn J. Barg, MSc, Toronto, ON; Yvonne Bombard, PhD, Toronto, ON; Peter Durie, MD, Toronto, ON; Pranesh Chakraborty, MD, Ottawa, ON; Beth K. Potter, PhD, Toronto, ON; Jessica P. Bytautas, BA, Toronto, ON; Karen Tam, ScM, Toronto, ON; Louise Taylor, NP, Toronto, ON; Elizabeth Kerr, PhD, Toronto, ON; Christine Davies, ScM, Ottawa, ON; Jennifer Milburn, MHA, Ottawa, ON; Katherine Keenan, BSc, Toronto, ON; Felix Ratjen, MD, Toronto, ON; Astrid Gutman, MD, Toronto, ON***ROOM / SALLE : 206B**

**Context:** Expanded newborn screening (NBS) has increased the number of positive screening results, prompting attention to the role of primary care providers (PCPs) in informing and supporting families. **Objective:** To explore PCPs’ reported and desired roles in NBS for cystic fibrosis (CF) result notification. **Design:** Survey and qualitative interviews. **Participants:** Ontario PCPs who had a positive CF NBS result in their practice in the previous 6 months. PCPs were identified from Newborn Screening Ontario records as the screen positive newborn’s responsible provider. **Intervention:** PCPs were mailed a questionnaire and invited to participate in an interview. The survey included questions about their role in notification of NBS CF positive results, confidence in providing results, barriers, and resources needed. Interview questions allowed PCPs to more fully discuss these topics. **Outcome measures:** The primary outcome measure was whether the PCP notified the family in their practice of the initial screen positive CF result. Secondary outcome measures were derived from the survey questions listed above. **Results:** 329/653 PCPs (50%) completed surveys; 38 PCPs participated in interviews. Survey respondents were 65% family physicians or nurse practitioners, 21% pediatricians, and 14% midwives. A majority of PCPs (65%) reported notifying the family of their infant’s initial screen-positive CF result vs. notification by the NBS centre; a majority reported discussing results of confirmatory testing (77%). Most PCPs (81%) agreed they have an important role to play in NBS. 72% said it was very important for PCPs rather than the NBS centre to notify families in their practices of initial NBS positive CF results. With NBS centre support, 68% would be extremely or very confident and 26% moderately confident in doing so although this dropped to 50%/40% when reflecting on their actual experience speaking with the family in their practice. 52% said point-of-care written information from the NBS centre was the most helpful in preparing to notify the family. Qualitative findings supported the survey findings. **Conclusion:** In practice, most PCPs notify families of NBS results and value this role. These data are relevant as NBS programs further expand and consider ways to keep PCPs in the loop.

**W63199 What Procedural Skills Do Clerks Perform in Family Medicine Clerkships? A CERA Survey**

15:45-15:55

*Martina Kelly, MBChB, MA, CCFP, Calgary, AB; Lara Nixon, MD, CCFP, FCFP, Calgary, AB; Kelly Everard, PhD, Saint Louis, MI, USA; Alec Chessman, MD, SC, USA***ROOM / SALLE : 2101**

**Context:** Medical school graduates are competent in only 5 out of 15 core procedural skills expected by family medicine residency program directors. Family medicine clerkships offer an ideal opportunity for students to carry out procedures; patients are clinically stable and the physician-patient relationship facilitates a supportive environment. The contribution of family medicine to procedural skills training at the undergraduate level is unknown. **Objective:** To describe which procedural skills students practice during family medicine clerkships in allopathic medical school in the U. S. and Canada. **Design:** Descriptive survey **Participants:** Family medicine clerkship directors in allopathic medical school in the U. S. and Canada. **Instrument:** A survey, informed by review of undergraduate procedural skills curricula, undergraduate family medicine and postgraduate family medicine curricula, was administered by the Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA) in Aug 2013. **Outcome measures:** Clerkship characteristics, type of procedural skills performed during family medicine clerkship; frequency with which skill is performed; relationship of skill performance with urban / rural clerkship. **Results:** Response rate was 73% (94/129; 9/17 Canadian schools). All clerkships indicated that clerks performed procedural skills during the family medicine clerkship. Fifty nine per cent (n=62) presented students with a list of required / recommended procedures. The five procedures performed at least once in the clerkship are pap tests (57.1% of clerkships), vaginal swab (42.9%), ECG recording (41.9%), urinalysis (40.0%), and throat swab (39.0%). Procedures performed more than 3 times in the clerkship were pap test (21.0% of clerkships), sterile technique (20.0%), injections (18.1%), throat swab (17.1%), glucometer testing (16.2%), and vaginal swab (16.2%). Students assigned to rural sites for their FM clerkship were more likely to perform procedural skills than those whose clerkship site was not rural. **Discussion:** Family medicine clerkships offer opportunities to perform a range of procedures. This challenges the traditional perception of skills being acquired during hospital placements. Repeated practice of skills is less than expected, which has implications for deliberate practice and skill enhancement. **Conclusion:** Further examination of the contribution of family medicine clerkships to procedural skill development is warranted.

**W58941 Timeliness of Encounter Note Review by Preceptors in Academic Family Medicine Teaching Clinics**

15:45-15:55 Carol Styles, RN, BN, MPH; Maria Krahn, BSc (Hons)

ROOM / SALLE : 2104AB

**Context:** Timely feedback to residents on patient care and associated documentation is fundamental to learning, ensuring quality care and appropriate medico-legal oversight. Transition to electronic medical records (EMRs) has changed workflows associated with review of clinical documentation by learners and was expected to improve the timeliness of this process. **Objective:** To develop a mechanism to audit the timeliness of review of resident-generated encounter notes by faculty physicians. **Design:** As a quality improvement initiative, we conducted a manual retrospective chart audit of a sample of encounter notes entered into the EMR by family medicine residents during a three month timeframe at three academic family medicine teaching clinics in Winnipeg, Manitoba, Canada. **Target population:** Encounter notes (n=333) written by residents were assessed for review by faculty physicians. **Instrument:** We used a spreadsheet to collect the following data: Date of appointment, date of encounter note entry, review status, and date of review. **Outcome measures:** Time (days) from encounter note entry by residents to review by faculty, as indicated by use of the review functionality in the EMR. **Results:** In our sample of 333 encounter notes, 101 (30%) had been marked reviewed on the same day as they had been entered; a total of 192 (57%) had been reviewed within 7 days; and 222 (66%) by 14 days. Twenty percent of notes sampled had not yet been marked as reviewed. For notes marked reviewed (n=267), time from encounter note entry to review (days): Median (1); mean (7.58); range (0-84). **Discussion:** The results provide a basis for faculty to set improvement targets for timeliness of encounter note review. Further assessment of workflows is needed to ensure all notes are reviewed. **Conclusion:** Current processes to prompt review of encounter notes entered by residents are insufficient to ensure all are reviewed in a timely fashion. Improving consistency of workflows and developing reliable reminder mechanisms is warranted. The results underscore the need for specific EMR functionality to support supervision of clinical learners.

**W62771 Bereaved Parents Break the Silence of Stillbirth: A community-based participatory research project**

16:00-16:10 Lynn Farrales, MSc, MD, CCFP, Vancouver, BC; Jennifer Douglas, PhD, Vancouver, BC; Jaime Ascher, BSc, Vancouver, BC; John Nanson, MEd, Vancouver, BC; May Farrales, PhD(cand.), Vancouver, BC; Andrea McComb, EdD(cand.), Vancouver, BC; Michael Klein, MD, FAAP, CCFP, FCPS, Vancouver, BC; Shafik Dharamsi, PhD, Vancouver, BC;

Christine Jonas-Simpson, RN, PhD, Toronto, ON; Joanne Cacciatore, PhD, LMSW FT, Phoenix, AZ

ROOM / SALLE : 206B

**Context:** Despite the 2.6 million stillbirths worldwide each year and rising rates in British Columbia, stillbirth continues to be a neglected public health issue and the associated grief remains invisible. In Canada, this lack of attention has left family physicians, maternity providers, and others who serve bereaved families with limited local research from which to draw. **Objectives:** This community-based participatory research project conducted with Still Life Canada: Stillbirth and Neonatal Death Education Research and Support Society (SLC) aims 1) to explore the experiences of bereaved parents and identify gaps in services and supports, 2) to set the groundwork for collaborative and participatory research by engaging bereaved parents, and 3) to inform the provision of bereavement support, bereavement care policy, and training programs. **Design:** Principles of community-based participatory research guided this project. With support from academic partners, bereaved community partners from SLC identified research objectives, recruited participants, facilitated focus groups, analyzed data, and continue to participate in knowledge translation activities. To enhance trustworthiness of the findings, reflexive journals, field notes, peer debriefing, and member checks were employed. **Target population:** Participants were recruited from the group of bereaved parents who attended the SLC conference entitled "You Are Not Alone: Bringing Stillbirth Out of the Shadows." This population self-selected themselves to attend a public event featuring a sensitive topic. **Instrument:** Community partners received training in qualitative research; topics included focus group facilitation, data analysis, ethical considerations, and reflexivity. A demographic form and preliminary focus group guide constructed by the community and academic partners were used. **Findings:** Four focus groups were conducted with 27 bereaved parents. Acknowledgement emerged as a dominant theme in acute-care settings where the finite window to interact with the baby's body occurred. Acknowledgement of the baby by health care providers was central as it related to the presentation of the baby to the parent(s), establishment of parenthood and management of trauma. **Conclusion:** The findings highlighted the key role of health care providers in the initial support of bereaved parents affected by stillbirth and serve as the groundwork for future research and collaboration with stakeholders in the development of supports. 1600-1610

**W62854 The Impact of Cultural Differences on Family Medicine Residency Education: Validating a new assessment instrument**

16:00-16:10 Douglas Archibald, PhD, Ottawa, ON; Alison Eyre, MD, CCFP, Ottawa, ON; Dorota Szczepanik, MD, CCFP, Ottawa, ON; Lionel Laroche, PhD, Markham, ON; Simone Dahrouge, PhD, Ottawa, ON; Timothy Wood, PhD, Ottawa, ON;

Memoona Hasnain, MD, MPHE, PhD, Chicago, IL; Daniel Longo, SnD, Richmond, VA

ROOM / SALLE : 2101

**Context:** The assimilation and optimal education of international medical graduates (IMGs) continues to be a challenge for residency programs due to areas of cultural discordance between IMGs and the Canadian and American medical systems. The problems related to cultural discordance are often perceived by residency educators and administrators as communication, collaboration, and professionalism issues. **Objective:** To address these issues we developed the Impact of Cultural Differences on Residency Experiences Questionnaire (ICDRE), which measures self-reported perceptions of a residency experience with regard to the concepts of sense of hierarchy, teamwork, and risk tolerance. The ICDRE has now been developed and piloted. **Design:** We report on the use of modern validity theory as a framework to ensure the validity of the ICDRE. Participants and **Instrument:** The 48 Item ICDRE was piloted with 68 family medicine residents from the University of Ottawa. All items were on a 7-point Likert response scale ranging from strongly disagree to strongly agree. **Outcome measures:** Preliminary psychometric analyses were conducted on the results of 68 family medicine resident scores (response rate of 42%). **Results:** Mean scores and standard deviations ranged from 4.6 (1.4) on teamwork items to 4.8 (1.3) on risk tolerance items and 4.9 (1.3) on hierarchy items. Item-total correlations were calculated for all items within each subscale. Discussion and **Conclusion:** Next steps will be to examine items with either very low or high item-total correlations and to determine which are kept or modified for future versions of the ICDRE. We anticipate the ICDRE may help learners recognize that these possible differences translate into different behaviours in clinical and educational settings.

**W56524      The “Nightmares” Course: An effective simulation-based acute care training method for family medicine residents****16:00-16:10***Filip Gilic, CCFP(EM); Ian Sempowski, CCFP(EM); Ana Blagojevic, MD, MSc; Karen Schultz, MD, CCFP***ROOM / SALLE : 2104AB**

**Background:** Acute care skills are difficult to teach but can be improved using high-fidelity simulation-based training. Queen's Family Medicine program offered episodic simulation training (Acute Care Rounds [ACR]) but in 2011 we developed the “Nightmares” (NM) simulation course that over 4 sessions aimed to develop comprehensive acute care skills from the ground-up. **Objective:** To determine whether the comprehensive NM course improved our residents' acute care knowledge and skills beyond what our standard simulation teaching (ACR) offered. **Participants:** 12 residents participating in the pilot NM course and 12 residents in time-matched ACR sessions participated in the study. All were in their PGY-1 year and all were Canadian medical school graduates. **Instrument:** The first measure was a 20-item questionnaire that listed various aspects of acute care and asked the residents to rate themselves on each item before and after a teaching session. The second component was an acute care Objective Structured Clinical Examination (OSCE) performed in the PGY-2 year and scored using a validated scoring system. The scoring was done by two expert and independent video-reviewers. **Outcome measures:** Self-reported changes on the questionnaire items before and after teaching sessions were analyzed using Wilcoxon matched pair analysis. Differences at the end of the PGY-1 year between the NM and ACR group mean scores were compared item by item using t-tests. The OSCEs were scored using a combined mean of individual scoring categories as well as a Global Assessment Scale. The means were compared using t-tests. **Findings:** The NM initial 2-day session significantly improved the resident's self-assessment scores on all 20 items of the questionnaire ( $p < 0.05$ ). Time matched ACR improved 11 out of 20 items ( $p < 0.05$ ) level. Follow-up NM sessions improved 5-8 out of 20 items, ( $p < 0.05$ ). Follow-up ACR sessions improved 1-5 out of 20 items, ( $p < 0.05$ ). End-of-the-year means were higher for 13/20 items in the NM group ( $p < 0.05$ ). On the OSCE, the NM group scored significantly higher on both the mean combined scores ( $p < 0.004$ ) and the Global Assessment Score ( $p < 0.026$ ). **Conclusion:** The “Nightmares” course is more effective than our standard curriculum at teaching acute care skills to the family medicine residents.



**501 Student/ étudiante****Cirque du Monde du Cirque du Soleil comme intervention en santé: revue qualitative de la littérature**

*Cynthia Fournier, étudiante en médecine, Québec, QC; Mélodie-Anne Drouin, étudiante en médecine, Québec, QC; Jérémie Marcoux, étudiant en médecine, Lévis, QC; Patricia Garel, MD, Montréal, QC Emmanuel Bochud, Montréal, QC; Julie Théberge, Québec, QC; Patrice Aubertin, Montréal, QC; Richard Fleet, MD, PhD, Lévis, QC*

**Contexte :** Cirque du Monde, présent dans plus de 80 communautés dans le monde, est un programme d'action sociale pensé et financé par le Cirque du Soleil. Son objectif principal est de favoriser le développement personnel et social de jeunes en difficultés. **Objectif :** Recenser la littérature sur Cirque du Monde comme intervention en santé. Plan : Revue qualitative de la littérature. **Participants :** Les mots-clés « circus », « social circus », « Cirque du Monde » et « Cirque du Soleil » ont été cherchés. Le cirque du Soleil a été contacté. Instrument : Les bases de données Pubmed, Cochrane, PsychInfo, LaPresse, Eureka, Google Scholar et Érudit ont été utilisées. **Mesure des résultats :** Les articles ont été révisés sur la base des titres, des résumés et des textes complets. Le principal déterminant mesuré était l'utilisation du cirque social en tant qu'intervention en santé. **Résultats :** Aucun article n'a été trouvé sur le cirque social en tant qu'intervention en santé. Deux études ont été trouvées concernant l'utilisation du cirque comme intervention en milieu scolaire et dans une réserve amérindienne. Le premier article a démontré l'augmentation de l'estime personnelle des enfants par l'intervention tandis que le second ne présentait que des résultats qualitatifs non spécifiques au programme du cirque social. Les autres articles répertoriés étaient des descriptions du cirque social. Un site web concernant l'utilisation du cirque pour faciliter la réintégration sociale de jeunes traités en milieu hospitalier pour un trouble psychiatrique majeur a été répertorié. L'équipe du département de pédopsychiatrie du CHU Ste-Justine responsable du projet a été contactée. Des résultats préliminaires non-publiés du projet pilote montrent des améliorations significatives du fonctionnement général des patients. Selon le Cirque du Soleil, plusieurs projets de recherche portant sur l'impact thérapeutique du cirque social sont en cours. **Conclusion :** Cirque du Monde rejoint une clientèle marginalisée difficilement accessible par le système de santé. Ce programme revêt un potentiel thérapeutique par sa clientèle cible et par sa promotion de saines habitudes de vie. Le manque de littérature constitue un enjeu compte tenu des investissements financiers du Cirque du Soleil dans le projet.

**502 Developing Communications Tools to Support the Goals of the Section of Researchers' Blueprint**

*Alan Katz, MBChB, CCFP, MSc, FCFP, Winnipeg, MB; Cheryl Levitt, MBChB, CCFP, FCFP, Hamilton, ON; Jayne Johnston, Communications Manager, CFPC*

**Context:** The College of Family Physicians of Canada's (CFPC) Section of Researchers' (SOR) Blueprint for Family Medicine Research Success 2012-2017 outlines five key areas of strategic foci, objectives, and key activities. The Blueprint calls for the development of communications strategies to support awareness, advocacy, capacity-building, and related activities. **Objective:** To develop a communications strategy and plan that includes key messages and related tactics to help the SOR achieve its goals as outlined in the Blueprint. **Design:** The objectives and key activities supporting each strategic focus in the Blueprint were reviewed and the goals of each activity were defined. Key audiences were identified: CFPC members, CFPC provincial Chapters, universities, decision-makers, funders, and CFPC staff. A process for the development of drafts, engagement of the SOR Council, and partnering with the Communications Department at the CFPC was developed. **Method:** The CFPC's Communications Manager met with the SOR Council at its spring meeting in April 2014. Together, they discussed the communications requirements to support the implementation of the Blueprint. A detailed discussion was held to draft a set of key messages that will be used consistently in all related communications going forward. The drafts will be further reviewed and refined for final approval by the Council. **Results:** The scope of the SOR communications requirements were discussed and initial requirements were confirmed. Draft key messages were developed to support the Blueprint goals dedicated to increasing awareness, advocacy, and capacity-building of family medicine research. **Conclusion:** The SOR communications materials will help the CFPC and its SOR to communicate consistent, strategic messages that support its research advocacy activities, and ensure that related activities achieve the desired goals for all target audiences.

**503 Preparation for Research Education/Excitement/Enhancement/Engagement in Practice Action Group**

*Vivian Ramsden, RN, PhD, MCFP (Hon); Alan Katz, MBChB, CCFP, MSc, FCFP; Cheryl Levitt, MBChB, CCFP, FCFP*

**Context:** In 2012, the College of Family Physicians of Canada's Section of Researchers' (SOR) Council undertook to develop a 5-year plan to assist with making research a core component of family medicine training, clinical practice, and scholarship. This evolved into the CFPC SOR's Blueprint for Family Medicine Research Success 2012-2017 ("the Blueprint"). **Objective:** The Blueprint called for the development of Action Groups that would provide input into the work plan for each objective in the Blueprint, and implement activities that will support the SOR's vision. **Design:** The Preparation for Research Education/Excitement/Enhancement/Engagement in Practice (PREEP) Action Group was established to support the Blueprint activities in the key areas of family medicine training, practice, and scholarship. PREEP strategies will evolve through the use of engagement, participatory processes, and action research with the goal of incorporating research and evaluation into all aspects of the work being undertaken by the College. **Discussion:** This Action Group will engage members in the development of a vision, strategies, and time frames for the accomplishment of short, medium, and long-term goals. **Conclusion:** The outcomes will contribute to the evolution of CanMEDS-FM and the Triple C Curriculum; as well as promoting research and education as fundamental components of the Scholar Role in all aspects of our work.

**504 Building a National Community of Practice in Primary Health Care Research**

*Matthew Menear MSc, PhD (cand.), Quebec, QC; Cheryl Levitt MBChB, CCFP, FCFP, Hamilton, ON; Frances Ruffalo, MA, Mississauga, ON; Alan Katz MBChB, MSc, CCFP, Winnipeg, MB*

**Context:** Research is a core component of family medicine education, training, and practice but currently many family physicians and residents lack important supports needed to engage in research and build successful research careers. The College of Family Physicians of Canada's Section of Researchers' (SOR) Council has recently developed a five-year strategic plan, known as the Blueprint for Family Medicine Research Success 2012-2017, and research capacity building was identified in this plan as a priority area for strategic focus. **Objective:** To describe the process used to achieve the objectives outlined in the Blueprint related to building research capacity through the development of a national community of practice in primary health care research. **Design:** A Research Community of Practice (RCoP) Action Group was established in January 2014 and its purpose and objectives will be refined with support from a multi-stakeholder steering committee. A primary objective of the RCoP Action Group will be to oversee a community of practice targeting early- and mid-career family physician clinician researchers, as well as researchers from other primary health care-related disciplines. Working in partnership with stakeholders inside and outside of the College, this community of practice will 1) facilitate knowledge exchange between members and increase their awareness of and access to relevant research training, 2) connect members with mentors willing to share expertise and provide career planning advice, 3) provide support to mentors in their efforts to provide outstanding research mentorship, 4) provide opportunities for family physician clinician researchers to network with each other and the broader primary health care research community, 5) engage family medicine educators to advance common goals around family medicine education research capacity, and 6) connect members with practice-

based research networks so that they can participate in the generation and translation of research. **Conclusion:** This community of practice will contribute to the development of a more vibrant, skilled, and connected community of researchers in primary health care and increase research capacity in this area across Canada.

### 505 The Most Notable Family Medicine Research Studies in Canada: A retrospective

*Cheryl Levitt, MBBCh, CCFP, FCFP; Eric Mang, MPA; Alan Katz, MBChB, CCFP, MSc, FCFP; Artem Safarov, BSc*

**Context:** The College of Family Physicians of Canada's Health Policy and Government Relations (HP&GR) Department collaborated with the CFPC Section of Researchers (SOR) in 2014 to identify the most notable family medicine research. This exercise demonstrates the unique value that Canadian FM research brings to health care. **Objective:** To identify the most notable family medicine research studies undertaken in Canada. **Design:** The HP&GR developed a framework for inclusion that included three main areas: topics of interest, regional representation, and quality of studies. To complete the task, the SOR developed a list of studies from those that had received awards from the CFPC Outstanding Family Medicine Research Article, the Canadian Family Physician Best Original Research Article, and the Family Medicine Researcher of the Year. Members of the CFPC SOR Council and research directors from the 17 Canadian departments of family medicine were invited to suggest additional studies. A spreadsheet with inclusion criteria was created. We focused on studies carried out since the year 2000, although studies carried out before 2000 were considered to provide a historical context. Two members of the SOR subsequently developed an annotated spreadsheet of the most important research and the HP&GR helped choose the most noteworthy. **Outcome measures:** An advocacy document called "7 Wonders of Family Medicine Research" for use by the CFPC and SOR with Chapters, universities, and decision-makers and a poster celebrating the "Top 10 Family Research Studies" for FMF 2014. **Results:** 31 studies were reviewed. A short list of 16 studies was developed. From this, the HP&GR chose the "7 Wonders of Family Medicine Research" and the SOR chose the "Top 10 Family Medicine Research Studies." **Conclusion:** "7 Wonders of Family Medicine Research" and "Top 10 Family Medicine Research Studies" have been identified to represent the unique value that Canadian family medicine research has had on health. This list will be used as the basis for communication and advocacy materials that will be developed to help various audiences understand the value of family medicine research and its impact on patient care.

### 506 Student

#### Capacity Building in a Cross-Jurisdictional Primary Care Research Team

*Xingchen (Amber) Chen, BHSc, MD (cand.); Cheryl Levitt, MBBCh, CCFP, FCFP; Noah Ivers, MD, CCFP*

**Context:** An interdisciplinary collaboration of 42 researchers, clinicians, professionals, and decision makers from Canada and New Zealand was formed for a CIHR-CBPHC grant application, to compare and evaluate the impact of a practice accreditation model on chronic disease services in primary healthcare. A key feature of this grant was to respond to the widespread deficiencies in capacity to sustain and coordinate primary care research. **Objective:** We undertook a program of study to investigate in an iterative fashion a) the opportunities and barriers associated with capacity building, and b) further recommendations to implement a capacity-building strategy for primary healthcare research teams. **Design:** The basic study design involved two steps: 1) a survey research to develop an Objectives Framework for the capacity-building plan for the grant application and 2) a qualitative study based on grounded theory to further explore the issues raised in the survey and the Objectives Framework. **Participants:** All 42 researchers, clinicians, professionals, and decision makers from Canada and New Zealand were recruited for the electronic survey and webinar discussion. Three early-career researchers, three senior researchers, and one decision maker were strategically chosen for participant interviews. **Intervention:** The interventions employed by the study include Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, international webinars, and interviews of sampled participants. **Outcome measures:** The survey and webinar results were to be synthesized into a capacity-building framework. Additional and more in-depth insights into the capacity-building framework were to be generated from the participant interviews. **Results:** The SWOT survey and webinar results were summarized into a diagrammatic framework comprised of 5 objectives (mentorship, nurturing environment, quality improvement research, knowledge translation, and cultivating QCANZ champions), and included as the capacity-building plan in the grant application. Areas to focus include developing and implementing a clear and fluid plan, increasing commitment and engagement, and recognizing the limitations of a team grant. **Conclusion:** The capacity-building plan has been a joint venture of empowerment—every element has been founded on the principle of partnering senior and early-career investigators. Moving forward requires tailoring capacity building to individual needs, employing both formal and informal processes.

### 507 Family Medicine Clerkship Evaluations: OSCE or a mini-CEX? Student and faculty perceptions

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**Context:** Identifying feasible tools that promote direct observation of medical students' clinical and communication skills, provide point-of-care feedback, and can be used for assessment is critical. **Objective:** To elucidate views of medical students and faculty educators on the use of a mini-CEX tool modified for family medicine (FM) clerkship, the FM Clinical Evaluation Exercise (FM-CEX), compared with an FM Objective Structure Clinical Examination (FM-OSCE). **Design:** Qualitative approach using semi-structured interview guides and focus groups. Transcripts were coded for anticipated and emergent themes. Analysis was by method of constant comparison. **Participants:** Students (n=44) in rotation 5 of FM clerkship at University of Toronto (UofT) in 2012-2013 were invited to participate in a study comparing the FM-CEX with the FM-OSCE. Seventeen students volunteered and all were invited to participate in a student focus group (n=5). All faculty members (n=22) of the Undergraduate Education Committee of the Department of Family and Community Medicine at UofT were invited to participate in a faculty focus group (n=6). **Intervention:** Students and faculty separately compared their experiences of the tools. **Outcome measures:** Feasibility, acceptability, perceived usefulness and satisfaction with the tools. **Findings:** Students described feedback they received from FM-CEXs as often inactionable, vague, or too general to be helpful and described FM-OSCE as a better learning experience. Faculty described strengths of FM-CEXs as the ability to identify students in need of additional help earlier in the rotation, the value of observed encounters, and opportunities to model good practice and deal with complexity of real patients. Students and faculty had concerns about the FM-CEX including, i) lack of consistency in marking standards, ii) high degree of variability in execution, iii) pre-existing relationship between students and preceptors as a barrier to objective evaluation, and iv) challenges in patient selection and scheduling. **Conclusion:** Students and faculty considered the FM-OSCE to be a more controlled, objective and rigorous mode of evaluation compared with the FM-CEX. The value of observed encounters via FM-CEX was considered high by faculty as these often revealed aspects of student performance that might not otherwise emerge. Students expressed that FM-CEX added little value to their experience.

**508 Student Outcomes of a New Preclerkship Family Medicine Longitudinal Program**

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**Context:** In 2011 the University of Saskatchewan instituted a formalized family medicine experience for second-year medical students. Reasons for introducing this experience included students requesting more exposure to family medicine, literature supporting early exposure influencing career choice, and the Future of Medical Education in Canada report recommending an increased emphasis on generalism. **Objective:** To determine the effects of a pre-clerkship family medicine experience on medical student attitude and self-assessment of skills. **Design:** Students were surveyed before and after the experience. A previous non-exposed class was surveyed for comparison. **Participants:** All 85 second-year students from 2011-2012 and the 85 students entering third year in 2011 (comparison group) were invited to participate in the survey. **Intervention:** Pairs of second-year students worked with a family physician four times a year for three hours a session. Under direct supervision, students practiced interviewing, physical examination, and developing a management plan. They were introduced to principles of screening, chronic disease management, and management of undifferentiated presentations. Written assignments were completed. **Outcome measurements:** Changes noted in student attitude and self-assessment of skills in the pre- and post-surveys, including comparison with a nonexposed previous class. **Results:** Response rates were 55.3% (pre-exposure), 63.5% (post-exposure), and 50.6% (comparison-non-exposed). On all 19 self-assessment items, the post-exposure students report higher self-assessment of skills compared with both the pre-exposure and nonexposed comparison groups. Of the items, classified according to CanMEDS-FMU roles, there were 9 statistically significant differences: FM Expert (6/9), Collaborator (1/1), Scholar (1/1), and Professional (1/2). The three career interest questions revealed a trend towards higher overall interest in family medicine and other primary care specialties between pre- and post-exposure groups (not statistically significant.) Of the 8 attitudinal items, all showed a positive attitude towards family medicine, with only one statistically significant positive change from the pre- to post-exposure group related to referral of interesting patient cases. **Conclusion:** Medical students have a positive attitude toward family medicine. Participation in a pre-clerkship longitudinal family medicine clinical experience does improve their self-assessment of their skills related to CanMEDS-FMU roles.

**509 Médicaments potentiellement inappropriés chez la personne âgée: une évaluation de qualité de l'acte**

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Plusieurs médicaments sont à utiliser avec prudence chez les patients âgés afin de prévenir des effets néfastes. Les critères de Beer fournissent une liste de médicaments potentiellement inappropriés chez les personnes âgées. **Objectifs:** Déterminer le pourcentage des patients de 65 ans et plus suivis à l'Unité de médecine familiale du Nord de Lanaudière (UMFNL) ayant une prescription d'un médicament de la liste des critères de Beer. Déterminer s'il y a une justification au dossier des patients pour expliquer les prescriptions de ces médicaments. Plan: Il s'agit d'une étude rétrospective de qualité de l'acte utilisant des critères explicites. **Participants:** 150 dossiers de patients âgés de 65 ans et plus ont été sélectionnés au hasard parmi les patients suivis par un médecin de famille de l'UMFNL et ayant consulté en visite de suivi entre le 1er juillet 2012 et le 30 juin 2013. **Intervention:** après vérification des critères inclusion/exclusion, les dossiers sélectionnés ont été examinés par deux résidents en médecine familiale dans une approche par «consensus» à l'aide d'une grille de collecte de données. **Résultats:** 137 dossiers ont été retenus et analysés. Au total, 39 patients (28,5%) avaient une ordonnance pour au moins 1 des 17 médicaments recherchés. Seulement 3 de ces patients avaient une justification documentée au dossier. Les benzodiazépines représentent la majorité des PIM (57,1%), suivie du zopiclone (6,1%), des neuroleptiques (6,1%), de la glyburide (6,1%) et des relaxants musculaires (6,1%). **Conclusion:** Malgré les limitations d'une petite étude rétrospective de dossiers, le taux de prescription d'une PIM chez les patients âgés de 65 ans et plus (28,5%) mesuré à l'UMFNL se compare à celui décrit dans une étude similaire à la nôtre conduite à Taiwan en 2009 (19,1%). Les benzodiazépines sont clairement les PIM les plus souvent rencontrées. Le faible taux de documentation au dossier des justifications de l'utilisation d'une PIM mérite d'être soulevé. Parmi les mesures pouvant aider à limiter l'utilisation de PIM chez les personnes âgées, nous croyons qu'une plus vaste étude regroupant les douze UMF de l'Université Laval aiderait à mieux comprendre les caractéristiques des patients susceptibles de recevoir des PIM ainsi que les caractéristiques des prescripteurs.

**510 La prise en charge de la néphropathie chronique est-elle adéquate au GMF-UMF Laval-Québec?**

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**Contexte:** Les médecins de première ligne sont impliqués dans la prévention de la progression de la néphropathie chronique, qui est un important problème de santé publique au Canada et mondialement. **Objectif:** Évaluer si la prise en charge et le suivi de la néphropathie chronique sont faits selon les normes établies dans une unité de médecine familiale de la région de Québec (GMF-UMF Laval-Québec). **Plan:** Étude rétrospective par critères explicites (évaluation de la qualité de l'acte). **Participants:** Les patients inclus ont entre 18 et 80 ans et sont inscrits avec code 12 à la Régie de l'assurance maladie du Québec (RAMQ), correspondant à une néphropathie chronique avec un débit de filtration glomérulaire (DFGe) < 50 ml/min. Une liste de 215 dossiers portant le code 12 de la RAMQ a été produite et 58 ont été retenus. **Intervention:** Analyse des dossiers à l'aide d'une grille de critères correspondant aux normes établies dans le guide de pratique internationale du Kidney Disease : Improving Global Outcome (KDIGO). Nous avons recherché si une analyse d'urine et une échographie abdominale avaient été faites pour établir la cause de la néphropathie, si le dosage de la créatinine et du ratio albumine/créatinine (RAC) étaient faits à la fréquence appropriée selon le stade de la néphropathie et si l'anémie et les désordres phosphocalciques étaient adéquatement dépistés. **Mesure des résultats:** Une analyse d'urine a été réalisée dans 73,9 % des dossiers, l'échographie abdominale a été demandée dans 50 % des dossiers. Le dépistage de l'anémie a été fait dans 95,7 % des cas et le dosage du calcium, du phosphore et de la parathormone a été fait dans 34,38 % des dossiers. **Résultats:** Le suivi du RAC et de la créatinine a été fait de façon adéquate dans 26,1 % des cas. De plus, le dosage du RAC n'avait jamais été fait dans 32,61 % des dossiers. **Conclusion:** La prise en charge de la néphropathie chronique au GMF-UMF Laval-Québec doit être optimisée pour répondre aux normes établies selon le KDIGO.

**511 Point-of-Care Ultrasound Use in Rural Emergency Departments of Quebec**

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**Context:** Point-of-care Ultrasound (POCUS) is an exam that can be rapidly performed at the patient's bedside for the purpose of answering specific and potentially life-threatening clinical questions and improving safety of procedures. Despite this interest, actual use of POCUS in Canada remains unclear. We examined access to POCUS and potential barriers/facilitators to its use among rural physicians. **Methods:** This is a descriptive cross-sectional study using an online survey (survey monkey). The 30-item questionnaire is an adapted and translated version of a previous survey conducted in rural Ontario by Flynn et al 2012. The questionnaire was pre-tested for clarity and relevance in a sample of emergency medicine residents with POCUS training (N=10). The survey was sent to regular staff physicians working either full or part time



in rural EDs (n=206). The EDs were located in “rural and small towns” and provided 24/7 medical coverage with acute care hospitalization beds. **Results:** In total, 108 surveys were completed (participation rate = 52.4%). Ninety three percent were family physicians, 7% CCFP (EM) with a median seven years of practice experience. A bedside ultrasound device was available in 95% of rural EDs, 75.9% of physicians reported using POCUS on a regular basis. The most common indications for using POCUS were to rule out an abdominal aortic aneurysm (70.4%) and to evaluate the presence of free fluid in trauma and intrauterine pregnancy (60%). Limited access to training programs was the most common reason (73%) for not using POCUS. More than 40% of POCUS users received training within their medical curriculum. Sixty four percent received training from the Canadian Emergency Ultrasound Society, 13% CAEP, 23% other course. Finally, 95% of respondents stated POCUS skills are essential for rural ED practice. **Conclusion:** To our knowledge, this is only the second study to examine POCUS use in rural EDs in Canada. Results suggest POCUS use is very good in rural EDs of Quebec. Yet, improved access to formal training is requested. Despite having the highest participation rate to date, response bias of enthusiastic POCUS users cannot be excluded.

### 512 Canadian Rural Emergency Departments Have Limited Access to Services

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Patrick Archambault, MD, MSc, FRCPC(c), CSPQ, Lévis, QC; Julien Poitras, MD, CSPQ, Lévis, QC

**Context:** Emergency departments (EDs) are important safety nets for 20% of Canadians who live rurally. Information on the services provided in rural EDs is scarce. Access to care is a cardinal feature of the Canada Health Act; yet, recent efforts at cost containment through regionalization may impact access to comprehensive emergency care. Our objective was to examine access to services in rural EDs. **Methods:** This descriptive study uses mixed methods (interviews and database analysis). All EDs located in Canadian rural small towns (defined by stats Canada) from each province/territory were selected to participate. We focused on hospitals with 24/7 ED physician coverage that have hospitalization beds. Data were collected from Ministries of Health, local health authorities, and ED statistics. A semi-structured recorded phone interview was conducted with ED managers to collect additional data and confirm the status of services. **Results:** Among the 332 rural EDs identified, 329 (99%) consented to participate. Hospitals had on average 22 acute care beds and 6 ED stretchers, and average 12, 200 annual ED visits. The proportion of rural hospitals having local access to the following 24/7 services was Intensive care unit 24%, general surgeon 27.5%, internal medicine 13%, obstetrician 12.5%, pediatrician 6%, psychiatrist 9%, CT scanner 15%, ultrasound 22%, basic X-ray and laboratory services 95%. The average distance to the nearest referral hospital and trauma center was about 240 km. **Conclusion:** This is the first study to describe the services offered by all Canadian rural EDs. Other than basic laboratory and X-ray services, the majority of rural EDs have limited access to professional and ancillary services. A detailed study is required to evaluate the impact of these limited services on interfacility transfers, costs, professional recruitment/retention, and patient outcomes. Further analyses are required for interprovincial and rural-urban comparison.

### 513 Limiter le recours au transport ambulancier sans nuire à la sécurité des patients?

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Richard Fleet, MD, PhD, CCMF(MU), Lévis, QC

**Contexte :** L'utilisation inappropriée des véhicules ambulanciers est un problème de santé publique rapporté internationalement. Cette étude rétrospective a été menée afin de déterminer les caractéristiques des patients transportés par véhicule ambulancier. Méthodes : L'analyse rétrospective des patients transportés par véhicule ambulancier à l'unité d'urgence du CSSS Alphonse-Desjardins site CHAU de Lévis du 1er avril 2011 au 31 mars 2013 a été effectuée. L'ensemble des patients ayant séjourné moins de 12 heures à l'unité d'urgence a été étudié afin d'identifier les diagnostics qui ont mené à un congé précoce. **Résultats :** Du 1er avril 2011 au 31 mars 2013, 26 149 patients transportés par véhicule ambulancier ont été accueillis à l'unité d'urgence du CSSS Alphonse-Desjardins, site CHAU de Lévis. De ces patients, 3 954 (15,11 %) ont obtenu leur congé de l'unité d'urgence vers leur domicile en moins de 3 heures. Les diagnostics les plus fréquents sont : plaies et contusions, entorses et fractures, cervicalgie, dorsalgie, lombalgie, TCC, anxiété. L'étude des diagnostics a montré que 2 046 patients auraient pu venir à l'unité d'urgence sans transport ambulancier. Ceci représente 7,85 % des 26 149 transports, et 83 % de ces 2 046 patients consultent pour traumatismes mineurs. **Conclusion :** Cette étude rétrospective a permis de déterminer que 7,85 % des 26 149 patients présentent des conditions cliniques non-urgentes sans nécessité de transport ambulancier. Une recherche plus approfondie permettra d'identifier et valider les critères de sélection des présentations cliniques dont le mode approprié de transport pourrait être autre qu'ambulancier.

### 514 Student

#### Youth With Chronic Health Conditions Transitioning to Adult Services: The family physician's role

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Dewey Evans, PhD, Vancouver, BC

**Context:** When youth with chronic health conditions (CHCs) age out of paediatric care, they often face challenges in navigating the different clinical practice and culture of adult services. Gaps in continuity of care during transition are associated with poor health outcomes. Establishing the “medical home” and family physician (FP) attachment prior to transfer are recommended to ensure ongoing managed and coordinated care in adult services. **Objective:** To determine the FP's role in providing care and general health care management for youth with CHCs prior to transfer. **Design:** Patients and their caregivers completed identical self-administered computerized questionnaires separately asking what health services the youth/caregivers accessed for certain medical issues, and the perceived FP's role in managing the youths' health. Data was input directly into RedCAP for analysis. **Participants:** Outpatients 14 to 18 years of age at B.C.'s Children's Hospital (BCCH) cardiology and neurology clinics, and inpatients (wards 3F, 3M) with CHCs (n=71) and their caregivers were included (n=78). Adolescents without a caregiver present were included and caregivers of adolescents with cognitive delay were included. Non-English speakers were excluded. **Findings:** When asked if youth see their FP without their caregiver, 63% of youth reported never, 25% sometimes, and 4% always. Therefore, in this abstract we report the caregiver data, as representing the primary manager of the youth's care. Ninety five percent of youth have an FP, while 49% of youth have a paediatrician. Of those who have an FP, 35% have seen their FP 2 times or less in the past 2 years and 15% have not seen their FP in the last year. While youth/caregivers accessed an FP up to 85% of the time for basic health issues, surprisingly they accessed BCCH specialists frequently (49% prescription refill, 29% mental health, 14% sexual health, 8% immunizations.) **Conclusion:** The results demonstrate that most youth with CHCs have an FP but they do not see them often. Additionally, patients are seeking care from specialists for primary care management issues. How attachment is defined and perceived needs to be more deeply explored.

### 515 Student Investigating the Perceptions and Satisfaction Outcomes of Women Receiving Intrauterine Devices

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**Context:** More and more women are choosing intrauterine devices (IUDs) as their preferred form of birth control. In response to this, additional information needs to be gathered to characterize this trend so as to better equip healthcare professionals in counselling their patients. **Objective:** To determine the demographics and patient experiences of women receiving IUDs. **Design:** Patients completed optional and anonymous surveys entitled the "IUD Experience Survey". **Participants:** Female patients of The IUD Clinic in Calgary who attended their six-week IUD post-insertion appointments were eligible for this study. **Intervention:** Patients referred to The IUD Clinic received either a group information session or individual consult about their birth control options followed by an insertion visit if an IUD was chosen. Surveys were distributed to gain insight about this cohort of patients. **Outcome measures:** Surveys explored patient demographics, reported insertion pain in relation to previous vaginal delivery and/or misoprostol use, and overall satisfaction with their IUD choice. All rating scales were evaluated using a 5-point Likert scale. **Results:** Of the 128 women who received surveys, 85% fully completed the questions used for outcome analysis. The average age of participants was 30 years old. The reported relationship statuses included dating regular partner (36%), living with regular partner (34%), married (36%), and no regular partner (9%). The top cited reason for switching from their previous contraceptive method to an IUD was "trouble remembering to take/use birth control." There was a statistically significant decrease in reported pain in patients who gave a history of prior vaginal delivery ( $2.52 \pm 0.22$ ) compared with those who did not ( $3.71 \pm 0.13$ ). The use of misoprostol prior to insertion did not produce a statistically significant difference in reported pain. The participants' overall satisfaction rating of their IUD was  $4.13 \pm 0.07$ . **Conclusion:** Prior vaginal delivery appears to be associated with a less painful insertion; however, it is unclear as to whether misoprostol has an effect in decreasing pain. Despite painful insertions, participants were very satisfied with their IUD choice. With these findings, physicians will be better informed when counseling their patients on what to expect in choosing an IUD.

### 516 ANNULÉE / CANCELLED

### 517 Family Physicians Do Not Use the Clinical Practice Guideline of the Canadian Task Force on Preventive Health Care on Screening for Type-2 Diabetes

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**Context:** The 2012 Canadian Task Force on Preventive Health Care (CTFPHC) recommendations on screening for type-2 diabetes differ from those proposed by other organizations. **Objective:** To determine the use of the CTFPHC clinical practice guideline (CPG) on screening for type-2 diabetes by family physicians. **Design:** Cross-sectional descriptive study. **Participants:** Family physicians from all four family medicine teaching units and 12 family medicine clinics from Quebec City, Quebec. **Instrument:** Questionnaire assessing 1) the use of the CPG according to the "Awareness-to-Adherence Model," and 2) intention to use it, the determinants of this intention and the barriers to its use according to the "Physician Guideline Compliance Model." **Results:** Among the 282 eligible physicians, 131 (47%) responded to the questionnaire. Overall, 74% (95% confidence interval [CI] 66%-81%) of respondents knew the existence of the CTFPHC, 48% (95% CI 40%-57%) knew the existence of the CPG, 25% (95% CI 18%-33%) knew its recommendations, 12% (95% CI 8%-19%) agreed to it, 10% (95% CI 6%-17%) adopted it, and 0% adhered to it. These proportions were lower among physicians in medical clinics, with over half not even knowing the existence of the CTFPHC. The current practice described by 57% and 66% of physicians who claimed to follow the Canadian Diabetes Association and CTFPHC recommendations did not match the recommendations claimed to be followed, respectively. Contrary to the CTFPHC recommendations, the majority of respondents would prescribe a blood glucose test to an individual with a low (76%) or moderate (94%) risk of diabetes. The intention to implement the CTFPHC recommendations was moderate ( $4.6 \pm 1.6$  of 7). It was significantly associated with past behaviour related to CPGs, and attitude, socio-professional norm, and perceived behavioural control vis-à-vis the CPG. The main barriers identified were calculation of the risk for each patient, patient's expectations, difference between the CTFPHC recommendations and those of other organizations, and lack of time. **Conclusion:** The CTFPHC CPG on screening for type-2 diabetes is little known and little used by participating physicians. Strategies to overcome the barriers identified could improve the implementation of this evidence-based CPG and possibly of other CPGs from the CTFPHC.

### 518 Using EMRs to Assess Patterns of Health Care Use and Quality of Primary Care at a Homeless Clinic

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**Context:** Mental health disorders are highly prevalent in primary care but gaps exist in our knowledge of how to harness the electronic medical record (EMR) to understand these disorders. **Objective:** To explore the feasibility of using EMRs to assess patterns of health care utilization and quality of care for patients with mental illness. **Design:** This was a retrospective review of the EMRs from a primary care clinic serving the homeless population in Ottawa, Canada. **Participants:** All adults over the age of 18 with at least one face-to-face clinic visit between January 1, 2009 and December 31, 2010 were included. **Instrument:** We extracted data from the OSCAR-CAISI secure EMR record system, a web-based, open-source EMR software. **Outcome measures:** Outcomes of interest included health care utilization and quality of care. The prevalence of mental health disorders and chronic diseases was first ascertained using billing diagnosis codes. Health care use (number of visits, prescriptions, and referrals) for both mental health and non-mental health services was calculated for January 1, 2011 to August 31, 2012. Eight quality indicators were used to assess quality of care. **Results:** Of 1257 patients included, 14.7% patients had a mental health diagnosis, which was lower than expected for this population. For health care use, the mean number of mental health prescriptions was surprisingly higher for patients with a chronic disease than for those with a mental health disorder (2.69 vs. 2.44 prescriptions per patient). For non-mental health services, health care use was highest in patients with chronic diseases only (e.g., mean number of prescriptions per person at 8.91 vs. 3.64 for patients with mental health disorders only). Of 23 quality indicators identified through a literature review, 8 could be measured using the EMR in the domains of access, chronic disease management, and early detection/prevention. Scores for these indicators were low across all patient groups. **Conclusion:** There are significant challenges in using the EMR to ascertain mental health diagnoses and quality of care in the homeless population. Primary care practitioners should address data quality and management to harness the potential of EMRs to improve care for patients with mental illness.

**519 Evidence Synthesis and Implementation Plan for the BETTER2 Project**

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**Context:** The original Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Primary Care (BETTER) Project was a randomized controlled trial involving eight primary care practices in Alberta and Ontario. BETTER demonstrated the effectiveness of an evidence-based shared decision-making approach to chronic disease prevention and screening (CDPS), which leverages existing practice resources and creates a new, skilled role of prevention practitioner (PP). The BETTER2 program aims to disseminate and implement this effective approach to CDPS in different settings, including rural and remote populations in Canada. **Objective:** Demonstrate a rigorous approach to evidence synthesis, tool development, and implementation for BETTER2, which aims to improve CDPS for cancer (breast, colorectal, cervical), diabetes, and cardiovascular disease and their risk factors (alcohol overuse, tobacco use, insufficient exercise, and poor diet). **Design:** The clinical working group conducted a review of the literature published since 2010 to update the BETTER evidence synthesis and integrated evidence algorithm for use with BETTER2. Additional searches were conducted to identify family history tools. Scoping reviews for community resources were conducted. **Participants:** Researchers, clinicians, and prevention practitioners. **Intervention:** Using the BETTER toolkit, the PP meets individually with patients and determines which CDPS maneuvers they are eligible to receive. Through shared decision-making and motivational interviewing, the PP develops a unique, individualized "Prevention Prescription" with the patient. **Outcome measures:** Development of a care map with family history and risk factor assessment, together with an implementation plan for CDPS that is adaptable. **Results:** The described integrated care maps have been developed for use in diverse practice settings. PPs have been identified and trained in the Northwest Territories and in Newfoundland and Labrador to use evidence-based shared decision making to conduct BETTER2. Patient tools have been tailored to work with available resources in the communities, including new family history tools addressing the variable prevalence of disease. **Conclusion:** Synthesizing integrated care plans from the evidence available in CPGs into clinically high-yield maneuvers, which are nuanced based on individual patient risk, values, and preferences is achievable. It is feasible to generate these novel care maps and implementation strategies for use in diverse populations in Canada.

**520 Facilitators and Barriers to the Implementation of the BETTER2 Program: Qualitative evaluation of a new approach to chronic disease prevention and screening (CDPS)**

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**Context:** As cancer, diabetes, and heart disease become a growing health care problem, primary care settings focus more on chronic disease prevention and screening (CDPS). BETTER2 is a comprehensive program to improve CDPS by introducing a new role, the prevention practitioner (PP), into primary care settings. The PP is a health professional who develops personalized "prevention prescriptions" with patients through a process of motivational interviewing and shared decision-making. **Objectives:** To identify barriers and facilitators to the implementation of BETTER2 in urban and rural primary care settings in Newfoundland and Labrador. **Design:** Focus groups and key informant interviews were conducted with individuals involved in BETTER2. A qualitative description employing ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement), a framework to analyze and facilitate change during program implementation, was used for analysis. **Participants:** 19 primary care providers (e.g., physicians, PPs, clinic staff), managers, researchers, and administrators. **Intervention:** BETTER stands for Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Primary Care. The program aims to transform practice through a patient-level intervention for patients aged 40 to 65 that improves CDPS in primary care for cardiovascular disease, diabetes, cancer, and associated lifestyle factors. **Outcome measures:** A description of barriers and facilitators to the implementation of BETTER 2 as expressed by participants' perspectives. **Findings:** Awareness (of the need for change), desire (to support and participate in the change), and knowledge (of how to change) were identified as three key areas to the implementation of BETTER2. Our evaluation suggests that an awareness of the need for increased CDPS in combination with the awareness of the limitations for physicians to do CDPS themselves were key to successful implementation. Awareness of the need for change was closely tied to the desire to have a PP and knowledge of how to integrate a PP into a clinical setting. Knowledge of costs associated with a PP and offering the BETTER2 program was particularly important for physicians and practices that are paid fees for service. **Conclusion:** The lessons learned from implementation of BETTER2 may be useful to other practices and policy makers as they consider implementing this or a similar approach in primary care settings.

**521 Non-Pharmacological Outpatient Interventions for Benzodiazepine Discontinuation in Elderly Persons**

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**Context:** Benzodiazepine use is associated with adverse effects in the elderly such that discontinuation is recommended. Abrupt discontinuation is discouraged due to increased risk of withdrawal symptoms. Different withdrawal strategies have been published with no clear consensus on the most effective intervention. **Objective:** To compare the success rates of non-pharmacological benzodiazepine withdrawal interventions in elderly outpatients. **Design:** Systematic review. **Data Sources:** PubMed, Embase, CINAHL, and IPA were searched from inception to July 2013 with search terms including "benzodiazepine," "dependence," "discontinuation," "strategy," "elderly," "outpatient," and combinations thereof. Bibliographies of eligible papers were hand-searched. **Study Selection:** Inclusion criteria were defined as prospective clinical trials using outpatient participants with a mean age of at least 60 years. Studies that were non-English, non-comparative, used medication-based withdrawal interventions, or did not report outcomes were excluded. **Synthesis:** Of 1444 abstracts reviewed, 12 articles reporting outcomes from nine studies (N=5558) met eligibility criteria. Benzodiazepine cessation rates were derived using an intention-to-treat analysis. Three types of interventions were identified: minimal interventions (MI); letter or brief consultation explaining self-help strategies to reduce benzodiazepine use), dose tapering schedules (DT); reductions of 10% to 25% every 1 to 2 weeks), and psychological interventions (group cognitive behavioural therapy (CBT) for insomnia or withdrawal symptoms). Five studies (n=5098) showed that long-term (6-, 12-, and 21-month) benzodiazepine cessation rates were higher with MI (1% to 35%) than under routine care (RC; 0% to 10%). One study (n=139) showed that MI plus DT (45%) was also more successful than RC (9%) at 12 months. Two studies (n=141) found that CBT plus DT (59% to 66%) was more successful than either DT (23% to 52%) or CBT (33%) alone at 12 months; however, one study (n=180) reported lower success for CBT plus DT (27%) compared with DT alone (34%), but greater success than RC (15%) at 15 months. **Conclusion:** Minimal interventions, dose tapering schedules, and psychological interventions, individually or in combination, are more successful than routine care in assisting elderly persons to discontinue benzodiazepine use in the outpatient setting. Combination strategies involving dose tapering appear to have the greatest success in long-term cessation of benzodiazepines.



**522 Utilization of Advance Care Planning in the Primary Care Setting***Erin Falconer, MD, BSc, Belleville, ON; Mia Steiner, MD, BSc, Belleville, ON*

**Context:** Advance care planning (ACP) is the ongoing process of reflection and discussion in which individuals make decisions regarding their future health care. Engaging in ACP is critical to delivering patient-centred care to elderly Canadians. Unfortunately, most patients do not complete an advance care plan, and primary care physicians often do not address ACP issues with patients. **Objective:** To investigate the current practices, attitudes, and values regarding ACP among older patients in the primary care setting. **Design:** Survey Research. **Participants:** Patients aged 65 years and over, presenting to the primary care physician office in the Belleville Queen's Family Health Team (BQFHT). **Intervention:** The survey was adapted from the ACCEPT study (Heyland et al., 2013). Questions about ACP preferences, values guiding ACP, and engagement in ACP care activities were included. Participant charts were audited for ACP documentation. A survey focused on physician ACP practices was distributed to the Belleville Queen's family health team (BQFHT) physicians. **Outcome measures:** Responses to a self-administered survey and concordance of patient-reported activities to documentation in the electronic medical record. **Results:** Of 127 participants, 70% of patients desired some element of comfort care at the EOL. Patients scored all EOL values highly, despite conflicting ideas. "Being comfortable and suffering as little as possible" was ranked the most important value, while, "Respecting the wishes of other family members" was the least important. The majority of patients had thought about ACP (76%), felt comfortable discussing ACP (70%), had started ACP discussions (78%), and formally designated a POA (74%). Events that triggered ACP engagement were elicited. In this group, 19% of patients have discussed ACP with a physician. For the patients who had not engaged in ACP activities, barriers were identified. Only 21% of charts audited had ACP preferences documented. BQFHT physicians report having ACP discussions with only approximately 10% of appropriate patients. **Conclusion:** Primary care physician initiation and documentation of ACP preferences is poor. The majority of patients have initiated ACP activities, while a minority group report specific barriers to ACP engagement. Routine inquires about ACP for elderly patients can allow physicians to initiate patient-tailored ACP interventions.

**523 PSA Screening: How primary care physicians interpret and apply conflicting evidence***Zachary Corso, BSc, Winnipeg, MB; Jeff Sisler, MD, MClSc, CCFP, FCFP, Winnipeg, MB; S. Michelle Driedger, PhD, Winnipeg, MB*

**Context:** The question of whether to screen or not to screen using PSA for detection of prostate cancer has been a highly debated topic. Despite changes in clinical recommendations, screening behaviours on the part of primary care providers still vary greatly. **Objective:** To assess how family physicians interpret the uncertainty associated with the clinical evidence behind PSA screening and how they decide whether or not to employ PSA screening in their practice. **Design:** A series of qualitative semi-structured interviews guided by a process of convergent interviewing to facilitate the exploration of key concepts. **Participants:** Six family physicians, both rural (n = 2) and urban (n = 4), associated with the Uniting Primary Care and Oncology (UPCON) Network of CancerCare Manitoba (CCMB). **Analysis:** Data were analysed using NVivo9TM. **Conclusion:** Conclusions were generated based on an examination of areas where participants converged and diverged. **Findings:** Participants were split 50:50 regarding regular PSA screening. Those against PSA screening believed that evidence to date was conclusive enough to imply that PSA screening did not provide clear benefit to patients, while those who screen believed that the evidence was conflicting and that the benefits may still exceed the risks. All participants agreed that the patient has the ability to decide for or against PSA screening after an informed discussion, though physicians who do not routinely screen were less likely to raise the topic. Perceptions of PSA screening were informed by individual articles, taskforce/professional recommendations, and discussions with colleagues. Some physicians described a form of saturation due to the sheer volume of articles and frequent changes in recommendations, resulting in less behavioural change as research around PSA evolved. **Conclusion:** PSA screening demonstrates clear differences in the way physicians interpret the same body of evidence. Understanding the transition between scientific evidence and behaviour on the part of physicians may help implement evidence-based medicine, particularly in the context of shifting or conflicting recommendations.

**524 Analysis of the Referral Process for Patients With Abnormal Fecal Occult Blood Testing Results***Sarah Le Blanc, MD, MSc; Lauren LaCaprara, MD; Jean-Marc Lafleur, MD; Chuanyi Nie, MD; Allison Tsang, MD, MSc; Erin White, MD; Brent Wolfrom, MD, CCFP*

**Context:** The fecal occult blood test (FOBT) is used in primary care to screen asymptomatic individuals for colorectal cancer. A 2008 Canadian consensus statement recommends a maximum time of eight weeks between abnormal FOBT and colonoscopy. Data from the Cancer Quality Council of Ontario demonstrates that the Local Health Integration Network, in which the Queen's Family Health Team (QFHT) is situated, lags behind this goal. **Objective:** This study was designed to assess the timeliness of referrals of patients with an abnormal FOBT to the local gastroenterology service, and to identify barriers to efficiency. **Design:** Retrospective chart review and quality improvement tools were used to analyze the referral process. **Participants:** Charts reviewed were of asymptomatic patients at the QFHT who underwent a screening FOBT in 2012 or 2013 with an abnormal result (n=72). **Instrument:** The QFHT electronic medical record was used to identify charts of patients with abnormal FOBT results. **Outcome measures:** The average time to reach each milestone in the FOBT-to-colonoscopy referral process was calculated after a review of each chart. **Results:** Of the 72 patients with an abnormal screening FOBT result, 71 accepted referral to Gastroenterology. On average, 7.4 days (range 0-50) elapsed after an abnormal FOBT result was available and an MD forwarded a referral to the clerk. The clerk took on average 1.0 days (range 0-4) to forward the referral to Gastroenterology. Of the 71 patients referred, 50 underwent colonoscopy and 10 underwent CT colonography, with the remainder lost to follow-up or declining testing. From time of referral, it took on average 64.2 days (range 14-224) for a patient to receive a colonoscopy. Of the 50 patients who underwent colonoscopy, 20 (40%) received it within the recommended timeframe of eight weeks from abnormal FOBT to colonoscopy. **Conclusion:** Of those patients undergoing colonoscopy following an abnormal FOBT, less than half received it within the recommended timeframe of eight weeks. While little of the overall process occurs under the control of the QFHT, we nevertheless strive to maximize efficiency. Our process mapping and analysis may apply to other family practices, allowing for streamlining within other organizations.

**525 Identifying Critical Health Infrastructure for Newcomers in Hamilton, ON: Perspectives of primary care providers***Brittany Julian, MD, Hamilton, ON; Jillian Salvador, MD, Hamilton, ON; Lynda Redwood-Campbell, MD, FCFP, DTM&H, MPH, Hamilton, ON; Andrea Hunter, MD, FRCPC, FAAP, Dip Trop Med, Hamilton, ON*

**Context:** Multiple complexities exist in providing health care for newcomers (refugees and immigrants within 2 years of arrival in Canada). Few studies examine these from a primary care practitioner (PCP) perspective. **Objectives:** To identify PCP challenges in newcomer health care including barriers to care, accessibility of relevant community resources, use of medical tools, and avenues for continued professional development (CPD). **Design:** Cross-sectional survey. **Participants:** Consecutive sampling of local primary care associations yielded a sample size of 40 with response rate of 78%. **Instrument:** An online questionnaire was developed by item generation from literature review and expert input, pre- and pilot tested. The survey was validated by clinical sensibility testing with residents and content was validated by local experts. **Outcome measures:** PCP perspectives regarding barriers to care, accessibility of relevant community resources, use of medical tools, and avenues for CPD were measured using multiple-choice questions, Likert, and rank-order scales. Descriptive analysis was performed. **Results:** Language differences were reported as barriers most often (65%) followed by vague patient complaints (52%), billing (52%),

inexperience with healthcare system (42%), discrepancy of backgrounds (39%), inexperience with medical problem (33%), and length of appointment (32%). PCPs reported greatest accessibility for language training and cultural activities and least in health system navigation. Greater than 50% of PCPs had not referred, or were not aware of any of the listed local resources/agencies. Only 52% of responders reported awareness of the Canadian Guidelines for Immigrant Health (2011) with 10% reporting implementation. Challenges reported included difficulty recalling content (70%) and length of the document (50%). Most responders had participated in a newcomer health CPD activity (58%), most within the last 2 years (72%), and most often in a conference format (67%). PCPs preferred formats for future CPD as guest presentation/rounds (89%), conferences (79%), and EMR tools (73%). **Conclusion:** PCPs report multiple barriers in providing newcomer health care including language, system navigation, and logistics. Challenges in accessibility and awareness of local relevant resources and national guidelines exist. These findings suggest that better integration of medical and supporting resources may improve healthcare delivery to newcomers.

## 526 Clinically Significant Decisional Conflict in Primary Care: A comparative analysis

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**Context:** Decisional conflict is central to decision-making and can be defined as a state of uncertainty about the course of action to take. It is likely when making choices involving risk or uncertainty of outcomes, the need to make value trade-offs in selecting a course of action, and anticipated regret over the positive aspects of rejected options. Clinically significant decisional conflict (CSDC) refers to decisional conflict likely to have harmful effects on a patient, such as regret, the inability to make a decision, or litigation. **Objective:** To estimate the prevalence of CSDC in primary care patients and explore its potential risk factors. **Design:** Secondary analysis from existing datasets. **Participants:** Datasets were selected from previous projects conducted through our team. All study types that pertained to a clinical decision-making process between a family physician and a patient were included. **Instrument:** Decisional Conflict Scale (DCS), a validated 16-item questionnaire. **Outcome measures:** CSDC was defined by a score  $\geq 25/100$  on the DCS. We performed descriptive statistics to characterize the distribution and prevalence of CSDC. We performed logistic regression analyses to assess the potential risk factors of CSDC. **Results:** From 10 available datasets, 5 matched our inclusion criteria (2 were not between patients and family doctors, 3 did not use DCS with patients). Clinical contexts included prenatal genetic screening (n=1), antibiotics use for respiratory infections (n=2), and general primary care practice (n=2). Patients (N=1338) were representative of the Quebec City area, except for the prenatal screening sample, which only included women between 18 and 34. Prevalence of CSDC ranged between 10.3% and 31.1%. A decision about antibiotics created more CSDC than the other decisions. Living alone was a predictor of CSDC in 4/5 studies (OR range: 1.48–2.84). CSDC was significantly higher for males in 3/4 studies. Other socio-demographic variables yielded inconsistent results when entered in the model. **Discussion:** Prevalence of CSDC in primary care is substantial and ranges from 10% to 31%. Living alone and being a man appear to be significant risk factors. **Conclusion:** Patient-level and decision-level clinical adaptation is required in designing interventions aimed at reducing CSDC in primary care.

## 527 A Theory-Based Tool to Assess the Impact of Continuing Professional Development on Clinical Practice

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**Context:** Continuing professional development (CPD), including continuing medical education (CME), is the method physicians most commonly use to improve their knowledge and skills. However, decision makers in CPD organizations have identified the need for a short, theory-based tool that could be used to routinely assess the impact of CPD activities on clinical practice. **Objective:** Using an integrated model for the study of healthcare professionals' intentions and behaviours as a theoretical framework, we sought to develop a theory-based instrument for evaluating the impact of CPD activities on health professionals' clinical practice. **Design:** After a systematic review and analysis of existing instruments assessing healthcare professionals' intentions and behaviours, an inventory of instruments based on socio-cognitive theories was created. A committee of researchers and CPD decision-makers selected items most relevant to CPD and to the constructs of the integrated model. An e-Delphi study with experts from various domains was conducted to check its face validity and likely acceptability in CPD settings. **Participants and outcomes measure:** We created a preliminary instrument with the items found most relevant and assessed its factorial validity, internal consistency and reliability over a two-week period among 138 physicians attending a CPD event. The sensitivity of the final instrument was assessed during a before-and-after study among 611 physicians attending 37 CPD activities. **Results:** Out of 72 relevant instruments, 47 were analyzed. Of the 1218 items extracted from these, 16% were discarded as improperly phrased and 70% discarded as duplicates. Two eDelphi iterations produced consensus on a provisional 40-item questionnaire. Exploratory factorial analysis following test-retest resulted in a 12-item questionnaire. Test-retest reliability was moderate with weighted kappa values between 0.4 and 0.6. Cronbach's coefficients for the constructs varied from 0.77 to 0.85. The instrument is sensitive to a statistically significant difference in physicians' intention to change their practice after attending a CPD activity. **Conclusion:** A 12-item theory-based instrument for assessing the impact of CPD activities on health professionals' clinical behaviours showed adequate metric properties. This instrument could encourage CPD developers to incorporate the same socio-cognitive factors into their training programs and will help researchers explore these factors further.

## 528 Cochrane Review of Interventions for Improving the Adoption of SDM by Health Professionals: An update

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**Context:** Shared decision making (SDM) is desirable but has not yet been widely adopted in clinical practice. **Objective:** To identify effective interventions for improving the adoption of SDM by healthcare professionals. **Methods:** An update of the 2010 Cochrane Systematic Review of Interventions for Improving the Adoption of SDM by Health Professionals was performed by rerunning an updated search in: Cochrane Library, Medline, Embase, Cinahl, Epub, PsycInfo, clinicaltrials.gov registry, and proceedings of relevant conferences. Authors of relevant studies were also contacted. The search period was up to August 2012. We included randomized controlled trials or well-designed quasi-experimental studies. They were eligible if SDM occurrence was evaluated using an observer-based outcome measure (OBOM) or a patient-reported outcome measure (PROM). Interventions were categorized: interventions targeting patients, interventions targeting healthcare professionals, and interventions targeting both patients and healthcare professionals. Two authors independently screened titles and abstracts, assessed studies for eligibility, assessed risk of bias, and extracted data. Statistical analysis considered categorical and continuous primary outcomes separately. We calculated the median standard effect size (or median risk difference) and the range of effect across studies and categories of intervention. **Results:** This update included 39 studies, counting those in the last version of the review. No effect was observed for categorical measures of SDM. For continuous PROM, we observed a slight effect in the three categories of intervention. For continuous OBOM, we observed a median standard effect size of 1.13 (range from 1.04 to 1.21) in intervention targeting patients, 0.73 (range from 0.29 to 2.07) in intervention targeting healthcare professionals, and 2.13 (range from 1.42 to 2.83) in intervention targeting both patients and

healthcare professionals. **Conclusion:** Interventions targeting the patient and the healthcare professional appear more promising than those targeting only the patient or only the healthcare professional, but further studies in this area are needed.

### 529 Pattern of Interest in Third-Year Enhanced-Skills Programs: Family medicine residents' perspective

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**Context:** Increasing numbers of family medicine (FM) residents choose to pursue additional training in the form of PGY3 programs following the completion of their residency. Little research has been done to study this important decision-making process. In addition, there is a longstanding debate about the adequacy of the length of FM training in Canada, and whether this contributes to the growing popularity of PGY3 programs. **Objective:** To assess FM residents' pattern of interest towards PGY3 programs, how this interest evolves over the course of residency, the factors influencing residents' decisions, and residents' perception of the adequacy of FM curriculum length. **Design:** Cross-sectional survey study. **Participants:** FM residents and PGY3 residents currently enrolled at University of Toronto (UT). **Results:** A total of 122 residents responded to the survey (response rates: 32% for PGY1s, 22% for PGY2s, and 64% for PGY3s). Approximately 80% of respondents reported an interest in PGY3 before starting residency; 58% of the respondents were interested at the time the survey was taken. Interest was higher among PGY1 residents and those interested in incorporating hospital-based practices. Emergency medicine was the most sought-after PGY3 program. Residents' decisions to pursue PGY3 were mainly driven by their interest and desire to acquire more knowledge in a particular specialty rather than lack of readiness for independent practice. Resident's decisions not to pursue PGY3 were mostly influenced by increased length of training and financial factors. Sixty-seven percent of respondents believe that the current length of FM residency was adequate and appropriate. However, a majority of residents identified a lack of exposure in areas of musculoskeletal pathology and dermatology within their curriculum. There was no statistically significant association between the residents' perception of the adequacy of FM training and their interest in PGY3. **Conclusion:** The demand for PGY3 programs among UT FM residents is primarily driven by interest rather than perceived inadequacy of FM training. Interest in PGY3 seems to decrease with increasing training time. To better meet the educational needs of FM residents, programs should consider improving the teaching of certain specialties or offer flexible programs tailored to the interest and educational needs of their residents.

### 530 Patient Perceptions of Barriers to Uptake of a Personal Health Record System in an Academic Family Practice

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**Context:** McMaster Family Health Team offers patients a personal health record (PHR) with the capacity of self-booking appointments. Uptake and use is disappointing after 1 year (2% practice population). **Objective:** To compare patient characteristics and perceptions regarding PHR self-booking uptake. **Design:** Descriptive cross-sectional study of PHR users and non-users. **Participants:** Adults 18 years and over; not long-term care residents; sample stratified between PHR-users (N=282) and randomly selected non-users (N=320). **Instrument:** Self-administered questionnaire comparing characteristics of users and non-users, assessing perceptions of barriers to uptake. **Main Outcome measures:** Characteristics and perceptions of PHR users and non-users, focusing on barriers to uptake and self-booking. **Results:** Response rate was 33% (n=93) in PHR-users, 16% (n=51) in non-users. Most respondents were female (54% PHR-users, 55% non-users); most were aged between 61 and 75 years (45% PHR-users, 31% non-users) and were college/university-educated (76% per group). Most (97% PHR-users, 98% non-users) had computer and Internet access and felt fairly comfortable using them (90% per group), while 63% of PHR-users and 49% of non-users spent over 10 hours/week on the Internet. Though 87% of PHR-users and 29% of non-users had heard of the PHR, 23% of users did not find it easy to sign up for it, 32% lacked understanding around how to use it, and 25% were unsure of its features. Privacy was a concern in non-users (12%) as well as a poor understanding how to use the PHR (10%). PHR-users wanted test results (84%), access to medical records (74%), and communication with the healthcare team (70%) through the PHR; non-users were less interested in test results (31%), self-booking (29%), and communication (29%). Most (98% per group) book appointments over telephone, and with ease (83% PHR-users, 90% non-users). Among PHR-users, 67% want online-booking and 58% continue to want phone-booking; of non-users, 71% want phone-booking and 51% showed interest in online-booking. **Conclusion:** Preliminary results demonstrate interest among PHR-users and non-users in an online-booking service. Barriers are difficulties signing up and lack of knowledge about PHR use. Peoples' wishes for potential PHR uses and current offered services differ. Simplified sign-up processes and increased education around services offered could increase usage.

### 531 Do Male Residents Get Unequal Exposure to Providing PAP Tests Compared With Their Female Counterparts?

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**Context:** The female pelvic examination is an important skill in primary practice and is a major competency required for certification of graduating family medicine residents. There is a belief in family medicine that male residents perform fewer pelvic examinations and PAP tests than their female counterparts. This would potentially have implications for the competency of physicians who are the sole primary care providers for female patients. **Objective:** This study was conducted to determine whether there is a discrepancy in the opportunities for male residents to practice and acquire these skills during their residency by comparing the number of PAP tests performed by male versus female family medicine residents at Stonechurch Family Health Centre (SFHC) teaching practice at McMaster University. **Design:** We conducted a historical retrospective cohort study to compare the mean number of PAP tests performed by male and female residents at SFHC during a 2-year residency program. **Participants:** 25 male residents were randomly selected and matched to 25 female residents who completed 8 months of full-time family medicine at SFHC from 2007-2012. **Intervention:** A search of the SFHC electronic medical records system OSCAR was conducted using billing codes to determine number of PAP tests billed by each resident and charts were reviewed to confirm the PAP tests were performed by the billing resident. Means and standard deviations were generated for the two gender cohorts over their 2-year residencies and compared with non-paired T-test. **Results:** The mean number of PAP tests over a 2-year residency was 11.08 (SD 7.51) and 31.92 (SD 13.49) for male and female residents, respectively. This was a statistically significant difference ( $p < 0.000001$ ). **Conclusion:** At SFHC we identified a statistically significant difference in the number of PAP tests performed by male residents compared with female residents, which may represent a discrepancy in the opportunities to acquire these skills during the training of these two cohorts. Further studies are required to determine the cause of this finding and whether it is generalizable to other family medicine teaching sites and residency programs. We hope this study will spark discussion about gender-based differences in medical education.

### 532 Evaluating the Impact of the Online Screening Activity Report (SAR) on Colorectal Cancer Screening

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**Context:** Cancer Care Ontario (CCO) developed the Colorectal Screening Activity Report (SAR) as a supplementary tool for primary care



physicians who are part of a patient enrolment model in Ontario to support their cancer screening activities. The report equips family physicians with patient-level data that is grounded in CCO's evidence-based clinical guidelines. **Objective:** The objective of the evaluation was to understand the report's impact on colorectal cancer screening participation rates and the appropriate follow-up of abnormal fecal occult blood tests (FOBT). **Design:** To provide a robust estimate of the SAR's impact on colorectal screening participation and appropriate follow-up of abnormal screen results, a generalized estimating equation was used. **Target population:** Screen-eligible patients who are enrolled to a patient enrolment model (PEM) physician in Ontario (7,514). **Intervention:** The SAR is an online report delivered to primary care providers via eHealth Ontario's ONE® ID. Leveraging provincial administrative and clinical datasets, the SAR provides patient-level colorectal screening data and actionable follow-up recommendations based on CCO's clinical guidelines. **Outcome measures:** The primary outcome measures of interest include the completion of an FOBT, and the completion of a colonoscopy following an abnormal result within six months of eligible physicians receiving access to their SAR. **Results:** Preliminary results of the report's impact have been promising, demonstrating a 6% increased likelihood of patients being screened using an FOBT if their physician was registered with ONE® ID, compared with patients of physicians without a ONE® ID. Additionally, when comparing physicians who logged in versus those who did not, a greater impact was demonstrated as patients were 26% more likely to be screened using an FOBT if their physician logged in to view their report. The results of the report's impact on appropriate follow-up of an abnormal result are pending and are expected within the next month. **Conclusion:** The SAR has demonstrated the positive impact of sharing provincial data in a meaningful way with frontline providers on a secure, online platform. Based upon feedback received from providers and the early success shown by the evaluation results, the report will expand to include breast and cervical cancer screening data in 2014.

### 533 Bridging the Gap: Increasing cancer screening rates through quality improvement

*Suzanne Strasberg, MD, CCFP, Toronto, ON; Zabin Dhanji, BA, MBA, PMP, Toronto, ON*

**Context:** In 2013 the Ministry of Health and Long Term Care (MOHLTC) introduced Quality Improvement Plans (QIPs) to the primary care sector, including Aboriginal Health Access Centres (AHACs), Community Health Centres (CHCs), Family Health Teams (FHTs), and nurse practitioner-led clinics (NPLCs). The QIP is intended to improve patient and provider experience, effectiveness of care, and value received through the implementation of practice level improvements continuously over time. **Objective:** Cancer Care Ontario (CCO) has developed a cancer screening toolkit for those primary care practices (PCPs) that choose to include cancer screening as part of their QIP. The intended outcome from implementation of the toolkit is increased practice-level screening rates for breast, cervical, and colorectal cancers. **Design:** The design of the study is a before/after measurement of screening rates of screening eligible patients. **Target audience:** An NPLC that implemented the cancer screening toolkit. **Intervention:** Using the model for improvement (Plan Do Study Act), the toolkit provides PCPs with clear and practical guidance on how to plan, implement, and measure progress of a quality improvement initiative that targets cancer screening. **Outcome measures:** The outcome measures through implementation of the toolkit are increased practice level screening rates for all three cancer types. Depending on the change solutions that practice chooses to implement, process measures could include, but are not limited to: number of calls made to screening-eligible patients to invite them to screen, number of screening appointments booked, etc. **Results:** Preliminary results show that the practice-wide implementation of the cancer screening toolkit has led to increases in screening rates. Breast screening rates increased from 70% to 85% over a three-month period, while cervical screening rates increased from 88% to 94% over the same period. **Conclusion:** Through an organized practice-level approach to cancer screening as outlined in the cancer screening toolkit, improvements in screening rates can be achieved. This has positive implications for the widespread adoption of the toolkit on improving screening rates.

### 534 CANCELLED

### 535 Is Our EMR Data Reliable? An analysis of data quality in Manitoba

*Alexander Singer, BSc, MB, BaO, BCh, CCFP, Winnipeg, MB; Sari Yakubovitch, Winnipeg, MB; Alan Katz, MBChB, MSc, CCFP, Winnipeg, MB*

**Context:** The implementation and utilization of information technology in health care settings to improve patient care continues to be a goal within the health sector. The implementation and use of health information technology has not been fully realized (Canada Health Infoway Annual Report 2011-2012). One area yet to be well described in the primary care and informatics literature is the state of data quality in Canada. There is an urgent need to evaluate and assess the data quality in primary care databases if the data is to lead to meaningful policy and research findings. We have begun an analysis of the primary care EMRs in the Winnipeg Regional Health Authority (WRHA) in 2013. In 2014, we will assess several fee-for-service clinics in rural and urban areas of Manitoba. **Objectives:** To gain a better understanding of how primary care physicians utilize their EMRs. To assess the baseline EMR data quality in Manitoba. To understand the factors which contribute to quality data. To share our findings and establish connections with other EMR researchers in Canada. **Design/Outcome measures:** This study is essentially a descriptive retrospective chart analysis of a primary care EMR data quality considering over 30,000 patient records. We built queries using the methodology put forward by Bowen & Lau in 2012 of the University of Victoria's eHealth Observatory and compiled them into aggregated data quality reports, broken down by physician and practice all clinics. **Preliminary results/Conclusion:** Given the relative infancy of EMRs in Manitoba and the nature of busy primary care clinics previously documenting on paper, there is low quality data in many cases. Our initial results have been presented at the Manitoba eHealth Conference and to the participating clinics. We have already spawned many discussions and quality improvement efforts in Manitoba and hope our analysis will continue this necessary conversation nationally.

### 536 The Feasibility and Self-Reported Repercussions of a Hospital-Wide Training on End-of-Life Care

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**Background:** Formal training in end-of-life (EOL) care tends to be minimal for interdisciplinary team members working in a community hospital, even for those on a palliative care (PC) unit. When there is training, it tends to be targeted towards nurses and physicians. However, interdisciplinary education for the entire professional and non-professional team members would seem beneficial for better team function and the individual staffs' attitude with PC. The LEAP (Learning Essentials Approaches to Palliative) and EOL Care training tool was produced by a group of Canadian PC experts. It is specifically intended to be used for interdisciplinary teaching for healthcare teams who want to expand their EOL care knowledge. **Methods:** The LEAP tool was used hospital-wide at Mount Sinai Hospital (a community hospital) to benefit all teams caring for patients approaching EOL. Pre and post questionnaires were filled out by participants and again at least 3 months later to assess knowledge and attitudes towards PC. One-on-one interviews will be conducted shortly to verify if the participants had favourable outcome in terms of attitudes and knowledge of PC patients' and families' needs and treatments, work satisfaction, and whether there were any negative repercussions. **Results:** Review of the pre and post questionnaires reveal a generalized curiosity for the training in EOL care, and an intention to use the acquired knowledge in their departments even if not on the PC team. Field notes revealed a renewed enthusiasm of participants in their work, as well as a better appreciation of communication skills and treatment of symptoms. The one-on-one interviews will

clarify this further. **Conclusion:** training interdisciplinary teams in EOL care is possible in a community hospital, as there is interest among the staff. This may be further facilitated by financial support by hospital administration. There seems to be long-term positive repercussions for the participants.

### 537 Resident Poster Increasing the Frequency of Smoking Cessation Encounters in Day-to-Day Primary Care: A quality improvement protocol

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**Context:** Tobacco addiction is a chronic condition that requires ongoing assessment by the primary care provider. Smoking is the single most important preventable risk to health in developed countries. For this reason, discussions around tobacco use in primary care needs to be at the forefront in order to give patients who smoke the best chances at successful cessation. **Objectives:** The key goals are to increase smoking cessation discussion between patients and their primary care providers with documentation of the 5 As (Ask, Advise, Assess, Assist, and Arrange) of smoking cessation in the charts of patients who smoke, as well as to increase follow-up appointments for smoking cessation in those patients who have had an initial smoking cessation discussion. **Improvement goal:** By the end of four months, the aim is to double the amount of smoking cessation-related discussion with those patients actively smoking. **Target population:** Health care staff (physicians, residents, pharmacists) of the Southwest Middlesex Health Centre and their patients who smoke. **Instrument:** Three Plan-Do-Study-Act (PDSA) cycles will be implemented sequentially in a period of 4 months. They include educational presentation on the 5 As for all staff, information poster of the 5 As in all encounter rooms, and implementation of the smoking cessation flowsheet on the electronic medical record. The PDSA cycles will be flexible to allow the principle investigator to meet the desired improvement goals. **Outcome measures:** The following outcome measures will be obtained from monthly chart reviews and will be plotted on a run chart over a total 4-month period that will indicate the start date of each PDSA cycle. The outcome measures are 1) documentation in the chart (using the 5 As) for all smokers who were seen in clinic, 2) follow-up visit for smoking cessation, and 3) new referrals to the smoking cessation pharmacist. **Conclusion:** This improvement protocol will run from July 1, 2014 to October 30, 2014. We predict that this quality improvement protocol will lead to a change in practice, which will improve successful smoking cessation in those patients who are actively smoking at the Southwest Middlesex Health Centre.

### 538 Integrating Horizontal Global Health Curriculum Into Family Medicine Residency

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**Context:** A standardized global health curriculum is increasingly being recognized as an important component of family medicine education that aims to train residents who are competent in caring for a community that is becoming more diverse and in addressing the unique needs of marginalized and under-served populations. **Objective:** To describe Canada's inaugural, fully-integrated, longitudinal global health curriculum in family medicine residency. **Method:** A structured global health curriculum was piloted over a two-year family medicine residency for one family medicine resident. In addition to core rural family medicine placements, the curriculum included longitudinal placements working with inner-city and newcomer populations, and a block placement in Nunavut. All required scholarly activities had a global health focus. The effectiveness of the program in building competencies in serving the special populations was assessed using aggregates of preceptor evaluations of the resident. The curriculum's alignment with the Triple C principles and the CanMEDS roles were evaluated by reviewing feedback from the resident and preceptors. **Results:** Both the learner and the preceptors identified continuity of care as a key advantage to the longitudinal placement for skills development and relationship building with vulnerable patients. Through the program, the learner had increased confidence in working with limited resources and in advocating effectively for the special populations. Competencies obtained were in alignment with the CanMEDS framework and the CFPC training priorities. The challenges of the program included increased administration duties and travel requirements between sites. This learner plans to continue working with under-served populations in the Canadian setting upon entering her practice. **Conclusion:** Integrating longitudinal global health experiences in family medicine residency is an effective way for residents to gain clinical experience working with diverse communities and to develop competencies in addressing the needs for the marginalized and under-served populations. Such a training model embraces the principles of the Triple C Curriculum. Further studies are needed to assess impact of such a training model on the patient population being served, and the feasibility of providing such program to a larger number of residents to meet the needs for structured global health training in family medicine residency.

### 539 Stroke Prevention Facilitated Quality Improvement Protocol

Alan Bell, MD, CCFP; Kate Hodgson, DVM, MHSc, CCMEPC; David Makary, MD, CCFP; Nicola Banks, BSc, CCPE

**Context:** Each year approximately 50,000 Canadians suffer a stroke. Strokes are the leading cause of disability, and the third leading cause of death in Canada. They cost the Canadian economy at least \$2.7 billion dollars annually. Primary care physicians play a pivotal role to ensure evidence-based strategies to prevent stroke are appropriately implemented, but a significant care gap exists. **Objective:** To improve stroke prevention in two patient populations: patients with atrial fibrillation and patients with prior history of stroke or transient ischemic attack. **Design:** Facilitated quality improvement (FQI) is an innovative approach to practice improvement that builds on the fields of knowledge translation, patient safety, and quality improvement. FQI provides participants with evidence-based clinical endpoints, practice tools, and training to improve clinical processes, point-of-care decision making, care outcomes, and support more effective team functioning, and provider satisfaction. **Participants:** Family physicians with multidisciplinary Family Healthcare Teams. **Interventions/Instruments:** There are three sets of FQI practice tools: 1) Practice Profile to analyse EMR data, combined with intuitive professional clinical reflection to identify the immediate opportunities for practice improvement; 2) Aims and Change Categories to prioritize and specify relevant practice improvements and select practice changes to implement first; 3) Plan-Do-Study-Act Plan and EMR programming to collect, analyze, and apply clinical judgement to the results of the rapid cycle tests of change. **Outcome measures:** Percentage of patients identified with atrial fibrillation (AF). Percentage of patients with AF risk stratified for stroke and bleeding. Percentage of patients with prior stroke or TIA monitored for hypertension, diabetes, and hyperlipidemia. Percentage of patients on appropriate treatment, including lifestyle modifications. **Findings:** FQI creates an effective and cost-efficient way to improve patient safety and care outcomes within a framework of patient and provider-centred values and preferences. **Discussion:** FQI for stroke prevention provides point-of-care clinical guidance and FQI practice tools founded on national and international guidelines. **Conclusion:** Thrombosis Canada has developed an FQI program in stroke prevention for primary care physicians. Addressing this care gap in the highest risk populations will reduce the economic and human cost of cerebrovascular disease.

**540 Predicting Fetal Viability in Bleeding in Early Pregnancy Using Emergency Department Ultrasound**

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**Context:** One in four women will experience vaginal bleeding during early pregnancy, and of those who bleed, roughly half will experience spontaneous abortion. Since the advent of bedside emergency department (ED) ultrasound, patients have immediate access to information about their pregnancy, such as the presence or absence of an intrauterine pregnancy (IUP) and fetal cardiac activity (FCA). Once an IUP has been confirmed, the patient can usually be safely discharged with outpatient follow-up. Despite this advance in excluding life-threatening diagnoses such as ectopic pregnancy, we do not yet know the prognostic value of documenting FCA and how to counsel women if visualized.

**Objective:** To determine the predictive value of FCA detected by ED ultrasound on fetal viability. **Design:** Prospective, observational, cohort study. **Participants:** Eligibility criteria included women presenting to the ED with vaginal bleeding in the first 20 weeks of pregnancy. A total of 87 patients were enrolled from December 2013 to February 2014. **Intervention:** Bedside transabdominal ultrasound was performed by ED physicians certified as independent practitioners by the Canadian Emergency Ultrasound Society, and presence or absence of FCA was documented. Two patients did not undergo ED ultrasound. **Outcome measures:** The primary outcome measure was fetal viability at 20 (+/- 2) weeks gestational age (GA), as confirmed by phone call with the patient or documentation on detailed anatomy ultrasound. **Results:** At enrollment, 43 patients (51%) had FCA detected on ED ultrasound. As of March 30, 2014, 31 of those patients had documented viable pregnancies and there were no pregnancy losses. By May 2014 all remaining patients will be contacted to confirm fetal viability. **Conclusion:** These preliminary data show that more than half the enrolled study participants presenting to the ED with vaginal bleeding in early pregnancy had documented FCA on ED ultrasound, and those with documented FCA were likely to have a viable pregnancy beyond 20 weeks' GA. We anticipate successful follow-up of the remaining patients with similar results. This will be the first study prospectively evaluating the predictive value of FCA detected by ED ultrasound on fetal viability in the context of vaginal bleeding in early pregnancy.

**541 Influence of School Year on Seasonality of Norovirus Outbreaks in Developed Countries Worldwide**

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**Context:** Norovirus gastroenteritis causes significant morbidity in the general population; factors affecting the winter seasonality of this virus are not well understood. **Objective:** Determine if the start of the grade school year is temporally consistent with the seasonal increase in norovirus outbreaks in developed countries worldwide. **Design:** Secondary data analysis. **Participants:** 13 studies (Europe 8, North America 1, Asia 2, Australia and New Zealand 2) were selected after a Medline search. The inclusion criteria were at least 3 years of monthly confirmed norovirus outbreaks, all norovirus genotypes included and based in a developed country. **Intervention/Instrument:** For each paper the percentage of total number of outbreaks per month was calculated as well as the overall median percentage of outbreaks per month. School year information was obtained for each location from education department websites (1), Eurydice – EU organization (8), Google trends (2) and general Internet search (2). **Outcome measures:** Month with highest percentage of outbreaks; and month with lowest percentage of outbreaks. **Results:** Excluding the Australia and New Zealand papers, the mean peak outbreak was 3.7 months after the start of the school year, with a standard deviation of 1.6 months. Both Australia and New Zealand had their peak outbreaks 8 months after the onset of the school year. The school year in these countries has approximately 2 week breaks between each of their 4 terms and approximately a 6 week summer vacation; differing from the other papers that only have extended breaks for Christmas and summer vacation. All of the papers had their lowest percentage of outbreaks either during or within one month of their longest school holiday. The month of peak outbreak occurred earlier when the percentage of outbreaks for the first month of school was higher than the median, and peaked later when the percentage of outbreaks for the first month of school was lower than the median. **Conclusion:** The start of the school year, with increase of contact rates among children, may be a factor in the seasonal pattern of norovirus outbreaks in developed nations. This information may have the potential to decrease the incidence of norovirus outbreaks.

**542 Pathways of Care in Patients With a Panic Disorder Presenting to the Emergency Room With Chest Pain**  
**CANCELLED****543 Patient and Caregiver Satisfaction in Care Provided by a Rural Hospital at Home Pilot Project**

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**Context:** In-home patient care as an alternative to hospitalization is a growing trend in Ontario. The Hospital at Home pilot project in Prince Edward County, however, is the first to serve a rural population. Rooted in primary care, a multidisciplinary team provides seamless hospital-level care to the frail elderly and palliative care patients, as well as providing resources and support for their caregivers. The objective of the program is to reduce hospital admissions, re-admissions, and ER visits and, more importantly, to improve the patient and family caregiver health care experience. **Objectives:** To describe the patient and caregiver satisfaction and confidence with the care provided. **Design:** As part of a mixed-method evaluation, telephone surveys are used to collect demographic information and ratings of patient and caregiver satisfaction using a 5-point Likert scale. Survey data will be analyzed using descriptive statistics. In addition, semi-structured interviews are conducted on a purposefully selected (sex, cognitive ability, living alone, etc.,) group of participants to understand their experience in the program. Thematic analysis will be used to analyze interview data. Interviews will continue until saturation of information is achieved. **Participants:** Currently, 12 participants (patients and caregivers) have consented to participate in the evaluation. Nine participants have completed the survey and 5 patients and 3 caregiver interviews have been conducted. **Intervention:** A family physician-led hospital at-home program provides acute care in the patient's home that would traditionally be provided in hospital. Service includes a daily visit by a nurse practitioner or doctor, registered nurse visits 1 to 4 times a day, pharmacist and social worker consultations, and additional health care services (e.g., occupational therapist, personal support worker, etc.) as required. **Outcome measures:** Measures of satisfaction for patients and caregivers. **Findings:** Analysis is ongoing. Preliminary results indicate that the majority of patients live alone and are low-income earners. Patients and caregivers report overall satisfaction and confidence with the quality of care received and the team who provided the care. **Conclusion:** Preliminary results indicate many program goals are being met, and that patients and caregivers expressed great confidence in the delivery of care in the home.

**544 The Effect of After-Visit Reports on Patient Satisfaction and Adherence to Follow-up Instructions**

*John Harding, MB BCH, BAO, MPH; Maria Bastin-Miller*

In family practice, visits often cover multiple issues and result in several follow-up instructions and/or medication changes which are communicated to the patient verbally. This can have negative impacts for patients who do not understand or recall the provider's instructions, leading to unintentional non-compliance. Literature has shown that compliance decreases with the number of instructions per visit. The



employment of an after-visit report (AVR), summarizing the key points from a visit may provide value in improving this communication. Currently, there are no Canadian guidelines for the use of AVRs. While previous studies have investigated patient satisfaction and AVR content, this has not yet been addressed in a Canadian context, nor has the question of utility in terms of patient adherence or provider opinion been explored. The objective of the study was to ascertain the feasibility and utility of the AVR from a provider perspective, and to evaluate impact on patient satisfaction and compliance. Separate surveys were designed for patients and providers. The first, directed toward providers, gauged perceived need for improved patient communication and assessed satisfaction with AVR content. The second was administered to patients following the distribution of the AVR and rated the usefulness of the tool in terms of a visit summary and foreseeable improvement in compliance according to the patient. The target populations included health care providers and patients at the Queen's Family Health Team in Kingston, Ontario. Eligibility criteria for patients included those with greater than one medical issue addressed during an encounter. The sample size included the staff at the QFHT and 40 patients. Information on the utility and content of the AVR was gathered from staff using a 10-question survey. Findings of the patient surveys issued during a pilot run of the AVR displayed a high level of patient approval. At this time, the provider survey results were pending. The study results were largely supportive for the use of printed AVRs in a family practice setting in terms of patient satisfaction and compliance. The feedback of providers is pending at this time.

#### 545 Treatment of Hypertension in the Elderly (Octogenarians): Are we paying attention to the J-curve phenomenon?

Manazir Walajahi, MD; Stu Murdoch, MD, CCFP, FCCP; Anwar Parbtani, PhD, MD, CCFP

**Context:** Contribution of hypertension (HTN) towards cardiovascular (CV) morbidity/mortality has led to "the lower the better" dogma for blood pressure (BP) control. However, many studies report that very strict BP control negates its beneficial effects and leads to increased CV events; graphically described as the J-curve phenomenon. This is more indicative for systolic BP, and has a greater impact on elderly patients. These observations provided a rationale for the present study. **Methods:** A retrospective chart review of BP status of octogenarians in 10 primary care practices was conducted. Data was obtained for most recent BP, comorbidities, number and classes of anti-hypertensive medications, and whether these were adjusted as per BP values. Statistics: We used t-test for ordinal data and 2 or z-statistics for nominal data. Only SBP (mmHg) data is presented for the sake of brevity. **Results:** 389 octogenarians were rostered to the 10 practices, with 269 (69%) having chart-evident diagnosis of hypertension (HTN). Mean age of the HTN group was 85±4 vs 85±5 for the non-HTN group. More comorbidities were noted in the HTN vs non-HTN group (renal insufficiency: 23 vs 2, diabetes: 59 vs 5; CV events: 59 vs 9; stroke: 27 vs 1; p<0.001 for all). Mean SBP/DBP for the HTN group was 136±19/71±10 vs 129±14/70±11 for non-HTN (p<0.001). In the HTN group, 20% (n=54) had SBP ≥150, vs 80% with <150 (p<0.001). SBP of <130 was noted in 33% of patients (17% with <120, 6% with <110 and 3% with <100). Number of anti-hypertensive medications ranged from 0 to 4 but a consistent downward "adjustment" was noted with reduction in SBP (for SBP ≥150, 9 added, 2 reduced; for <140 to 130: 5 added, 4 reduced; for <130 to 120: 3 added, 13 reduced, for <120 to 110: 0 added, 11 reduced [2: p<0.01 for all]). Classes of medications were diuretics: 109, ACE-inhibitors: 76, ARB: 103, CCB: 108, and beta blockers: 78. **Conclusion:** We noted that 20% of octogenarians had not achieved adequate BP control. However, a substantial number had very low SBP, that could potentially increase CV events. It was noteworthy that numbers of medications prescribed were consistently reduced with reduction of SBP, a sign of judicious HTN control.

#### 546 Student Poster

##### The Step Approach: Standard treatment and collaborative care lead to better hypertension outcomes

Jonathan Williams, BMSc, London, ON; Emily Stoll, BSc, London, ON; Tracy Ouellet, MD, CCFP, FCCP;  
Cathy Faulds MD, CCFP, FCCP, ABPHM

Hypertension is a chronic disease of growing concern, leading to increased risk of stroke, heart attack, dementia, and kidney disease. The London Family Health Team (LFHT) implemented a standardized chronic disease program designed around evidence-based clinical guidelines and the utilization of an interdisciplinary team to determine if measures of high blood pressure can be improved in our hypertensive and diabetic populations. The program model includes process maps, logic models, computer templates, spreadsheets, and other resources to standardize the care provided. The LFHT used a program evaluation design to reflect on the success of the program model and to track improvements in its hypertensive and diabetic population of approximately 2500 patients. This was done through the formation of a Hypertension Quality Improvement Committee (H-QIC) to evaluate the program monthly and implement necessary interventions. The H-QIC identified that the spreadsheet was not accurately highlighting the degree of patient deviation from their blood pressure targets. Therefore, the spreadsheet was modified such that blood pressure targets were broken down into increments to better identify how close the patient was to target. The H-QIC also arranged a Continuing Medical Education (CME) session with a specialist. The CME introduced a standardized, step-approach prescription algorithm to treat hypertension. Each physician was provided with a list of patients with diabetes who had a recent blood pressure out of target and identified their current drug treatment plan. The physicians were then able to review the patients individually and overcome their prescribing inertia. Outcome measures include percentage of patients at their blood pressure target and those with a self-management goal in the past year for both hypertensive and diabetic patients. The number of anti-hypertensive medications and percentage of patients on each class of antihypertensive drug has been examined in the diabetes population. This data will be re-evaluated 1 year post CME. Currently, 58% of our diabetes patients and 76% of our hypertensive patients have their blood pressure at target. The standardized approach, introduction of a prescription algorithm, and use of a care team have been pivotal in maintaining and increasing the percentage of patients with blood pressure at target.

#### 547 Student

##### Multimorbidity in Canadian Family Medicine Undergraduate Education

Emily Harrison, BA, MD (cand.), London, ON; Ted Osmun, CCFP, London, ON; George Kim, CCFP, London, ON;  
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**Context:** Multimorbidity, the co-occurrence of two or more medical conditions in one patient, is becoming an increasingly common presentation in family practice. Given this, it is important that medical trainees are adequately prepared to care for these complex patients. **Objective:** To document and assess multimorbidity teaching in Canadian family medicine undergraduate programs and identify potential barriers to introducing this topic in undergraduate medical curricula. **Design:** This study involved two parts. First, an environmental scan of publicly available sources was conducted to determine the number of learning objectives related to multimorbidity and/or comorbidity in existing curricula. Second, program directors and other faculty involved in curricular development were surveyed to further explore the teaching and evaluation of multimorbidity. **Participants:** Family medicine clerkship directors and other individuals involved in clerkship curriculum development were invited to participate. **Instrument:** The survey was distributed online and was available in both English and French. **Outcome measures:** Qualitative analysis of faculty responses with thematic analysis. **Findings:** Learning objectives were identified for 10 out of 17 programs. Of those, 2 were found to have learning objectives related to multimorbidity. Surveys were distributed to 20 individuals and 16 were returned giving a response rate of 80%. Similarly, 33% of faculty respondents stated that their respective programs included learning objectives related to multimorbidity in their current curricula. Identified barriers included lack of financial resources, lack

of existing resources, and lack of time for the development of new curricula. Sixty-eight percent of respondents stated that senior medical students should be taught an approach to multimorbidity in their family medicine clerkship. **Conclusion:** At present, most family medicine programs do not include formal teaching on multimorbidity in their clerkship curricula. However, the findings of this study indicate that there is growing recognition of the significance of multimorbidity and the need to include this topic in undergraduate family medicine education.

#### 548 Testing a Cascading Framework Designed to Enhance Concussion/Mild Traumatic Brain Injury Symptom Monitoring Donna Ouchertolony, MD, Toronto, ON; Alicja Michalak, RN, MScN, Toronto, ON; Cindy Hunt, PhD, RN, Toronto, ON

**Context:** For patients who have suffered a concussion/mild traumatic brain injury (TBI) ongoing symptoms can present in diverse ways, may last well beyond the expected 3 to 6 months, and be challenging to manage. We are testing a framework using 4 symptom-specific patient self-report questionnaires that cascade from the patient self-reported Rivermead Post Concussion Symptom Questionnaire. **Objective:** To promote safer and more efficient family practice in the management of concussion/mild TBI symptoms. Specifically, to consistently measure general post-concussion symptoms and to focus on symptom assessment of sleep, fatigue, headache, and mental health sequelae as it presents in the patient population. **Design:** Surveillance data. **Participants:** Level 1 trauma, urban care centre, out-patient Head Injury Clinic population. **Instrument:** Rivermead Post Concussion Symptom Questionnaire (PCQ), Sleep and Concussion Questionnaire, Barrow Neurological Institute Fatigue Scale Patient Health Questionnaire-9, Headache Questionnaire (not validated). **Outcome measures:** When a patient self-reports a score as mild (2), moderate (3), or severe (4) on a Rivermead item related to sleep disturbances, fatigue, mental health, and/or headache they are directed to complete a symptom-specific questionnaire (instruments used are outlined above). **Results:** From our Head Injury Clinic database of close to 300 patients who completed the Rivermead PCQ, over half went on to complete the sleep and/or fatigue symptom assessments and over one-third the headache and/or PHQ-9. **Discussion:** We advocate for safe and efficient practice of concussion/mild traumatic brain symptom management. Injured patients complete a Rivermead Post Concussion Symptoms Questionnaire at each clinical visit. Based on individual Rivermead item scores we recommend enhanced monitoring of symptoms using a cascading framework of evidence-based questionnaires. Our selection of questionnaires has been guided by the National Institute of Neurological Disorders and Stroke (NINDS) Common Data Elements for TBI and the Ontario Neurotrauma Foundation, Guidelines for Concussion/Mild Traumatic Brain Injury & Persistent Symptoms, Second Edition (2013).

#### 549 What Do We Mean When We Say “This Patient Is Complex”?

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**Context:** The notion of “complex patient” has evolved over time. It is usually defined as patients with complex care needs, which are related to any combination of drug-related problems, mental health difficulties, multiple chronic diseases, or social vulnerability. Complex care needs encompass characteristics related to the patient, the organization, the practitioner, and the patient-practitioner interaction, and are associated with misuse, overuse, and underuse of health care services. Our scoping review revealed only one validated “complex patient assessment tool” for hospitalized patients. Few studies have solicited the perspective of community-based primary health care (hereafter primary care) practitioners. Moreover, none have integrated the views of members of a multidisciplinary primary care team. **Objective:** To identify i) types of patients with complex care needs, ii) related health care problems, and iii) possible solutions for addressing patients’ needs from the perspective of primary care practitioners. **Approach:** Participatory research with health organizations. Practitioners from the Practice Based Research Networks (PBRNs) of two universities (McGill and Sherbrooke) will participate in formulating the research question, planning the data collection/analysis, and dissemination of results. This participatory ground-up approach assures the practical relevance of the study for primary care practitioners and organizations. **Design:** Exploratory study of a series of case reports. **Participants:** About 50 practitioners (nurses, pharmacists, physicians, psychologists, and social workers) will be recruited (30 already recruited). **Instrument (data collection):** For each patient perceived as complex (a case), participants will complete a questionnaire using their knowledge of the patient and information from the patient’s chart. The questionnaire includes i) checklists of chronic diseases, medication, health care access, psychological, and social problems; and ii) open-ended questions about the patient’s complex care needs as well as possible solutions for addressing these needs. **Preliminary Results:** Each questionnaire is synthesized into a case report emphasizing health problems, complex care needs, and possible solutions. The data analysis will lead to proposing a “needs-problems-solutions” typology. **Conclusion:** We expect to produce a clinically relevant educational tool for residents and practitioners. This will contribute to improving a shared understanding of complex patients in our PBRNs.

#### 550 Characteristics of Complex Care Needs and Interventions Suited for Patients With Such Needs: A participatory scoping review

Pierre Pluye, MD, PhD; Guillaume Bessière, MD; Magali Bigras, MD; Alain Boulet, BSc, MMSc; Karène Brenner, PhD; Emily Crist, MLIS; Silvia Duong, BScPhm, PharmD; Serge Goulet, MD; Vera Granikov, MLIS; Martine Jean-Marie, RN; Dounia Kayal, MD; Bernardo Kremer, MD; Christine Loignon, PhD; Lynn R. McLauchlin, MD; Quynh Nguyen, MSc; Edith Omon, MD; Marjorie Rabiau, BSc, PhD; Ellen Rosenberg, BA, MD CM; Colleen Beth Tower, RNP; Roland Grad, MD, MSc

**Context:** With the aging of our population and increasing burden of chronic disease, complex care needs constitute a growing concern in community-based primary health care (hereafter primary care). Primary care practitioners find it difficult to address the following categories of complex care needs: multiple chronic conditions, mental health issues, drug-related problems, and social vulnerability. Moreover, these care needs encompass characteristics related not only to the patient, but also to the organization, the practitioner, and interactions between all three. Literature reviews typically focus on one population, one disease, or one intervention. These reviews do not integrate studies on complex care needs in primary care. **Objective:** Identify characteristics of complex care needs, and interventions suited for patients with complex care needs. **Design:** Exploratory scoping review. **Approach:** Participatory research with health organizations. A multidisciplinary core group of practitioners from two Practice Based Research Networks (PBRNs) participated in formulating the research question, planning the data collection/analysis, and disseminating the results; thus, increasing the practical relevance of the review. **Methods:** We searched for articles published since 2000, in English or French, using three bibliographic databases and Google Scholar. Included articles focus on complex care needs in adult primary care patients from OECD countries. **Preliminary Results:** We found 39 empirical studies with diverse designs (14 non-intervention studies describing patients with complex care needs, and 25 studies assessing interventions). This finding justifies a mixed studies review (including qualitative, quantitative, and mixed methods studies). Among the 39 studies, we found articles describing three assessment tools. These tools do not take into account key categories of problems, e.g., medication issues such as polypharmacy. **Conclusion:** We will map the characteristics of complex care needs with types of interventions suited for primary care patients with such needs, and reveal knowledge gaps to guide future research. Finally, core group members will combine our results with a series of case reports to propose a clinically relevant tool and provide educational material for residents and practitioners. This will contribute to the

shared understanding of patients with complex care needs.

### 551 Développement d'un programme régional de soins postfracture de fragilisation

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**Contexte :** Chaque année on dénombre environ 30 000 fractures de fragilisation chez les Québécois âgés de plus de 50 ans. Une fracture de fragilisation étant le facteur de risque le plus important dans la prédiction du risque de fracture subséquente, il est primordial d'agir. Pourtant 80 % des patients ayant subi une fracture de fragilisation au Québec ne sont ni identifiés, ni traités adéquatement. **Objectif :** Afin de réduire l'écart thérapeutique, notre objectif est de développer et d'implanter un programme de soins intégrés destiné à cette population sur le territoire du Centre de santé et de services sociaux (CSSS) Sud-Ouest-Verdun, associé à l'Agence de la santé et des services sociaux (ASSS) de Montréal. **Plan et méthodes :** Un groupe interprofessionnel comprenant des gestionnaires de l'ASSS de Montréal et du CSSS Sud-Ouest-Verdun, des cliniciens de la première ligne et des experts a été créé. Nous avons procédé à une revue de la littérature et à un scan environnemental ainsi que consulté des experts et Ostéoporose Canada. Suite à une évaluation systématique, les éléments-clés du programme ont été identifiés. Un modèle de gestion en première ligne centré sur le patient est proposé. **Résultats :** Le programme, d'une durée de 6 mois, comprend une séquence d'interventions individuelles et en groupe par une équipe interdisciplinaire afin de favoriser l'autogestion de la personne au regard de sa maladie et l'observance du traitement. Le programme prévoit également une intégration de la prise en charge par la mise en place d'ordonnances collectives pour les analyses biochimiques, l'épreuve initiale de densité minérale osseuse et l'initiation de la pharmacothérapie; l'adoption de saines habitudes de vie et des stratégies de prévention des chutes. Un suivi téléphonique post-programme est réalisé par l'infirmière à 12 mois. Le processus d'évaluation du programme est en cours de développement. **Conclusion :** Notre programme est le premier à être initié par une ASSS au Québec. Comme démontrés dans la littérature, de tels programmes de soins intégrés sont rentables et efficaces à condition d'inclure trois étapes cruciales : Identification, Investigation et Initiation du traitement. Le nôtre a l'avantage d'inclure un suivi post-programme.

### 552 Resident

#### Protocol: Effectiveness of interventions to reduce wait times for family medicine appointments

*Dominique Ansell, MSc, MD, Ottawa, ON; Benjamin Simard, MD, Ottawa, ON; James Crispo, MSc, Ottawa, ON; Lise Bjerre, MD, PhD, MCFP, Ottawa, ON*

**Context:** Two key components of an efficient healthcare system include accessibility and short wait times. Currently, timely access to a family physician is a concern in Canada. Prior national surveys have demonstrated that Canadians experience great difficulty in scheduling same-day appointments with their family physician. When wait times for appointments are too long, patients experience worse health outcomes and decreased satisfaction with health services, and are often left to use emergency departments and urgent care clinic resources. Efforts have been made recently to address the issue of accessibility to a family physician. **Objective:** To systematically review the literature in order to identify interventions designed to reduce wait times for family medicine appointments, as well as to assess their effectiveness. **Design:** A systematic search of the literature was completed on the effectiveness of interventions to reduce wait times for family medicine appointments. **Target population:** All patients/population who have a family physician. **Instrument:** Searching of multiple databases, including but not limited to: Medline, PubMed, Embase, The Cochrane Database of Systematic Reviews, the Cumulative Index to Nursing and Allied Health Literature, and PsycINFO. Studies identified from our search were assessed according to our inclusion/exclusion criteria by two independent reviewers in two levels of screening (title and abstract, full text). Our research methods were guided by the Cochrane Handbook for Systematic Reviews of Interventions. Outcomes measured: Wait time for family medicine appointments. **Results:** Our initial search of the Medline database returned more than 1,000 articles. Results from our searches of other databases will be presented and findings from our two levels of screening will be depicted using a PRISMA flow diagram. A preliminary interpretation of our findings will be presented and discussed. **Conclusion:** To our knowledge, this is the first study to systematically identify interventions designed to reduce wait times for family medicine appointments, as well as to assess their effectiveness. Our review will inform policy makers and family healthcare practices of interventions that prove effective in reducing wait times for family medicine appointments. Finally, this study will serve as a stepping stone in the pursuit of improved accessibility and timely access to family medicine for Canadians.

### 553 A Retrospective Cohort of People age 50 to 79 on Statin Drugs for Primary Prevention

*Amelia Moffatt, BSc, St. John's, NL; Marshall Godwin, MD, MSc, FCFP, St. John's, NL*

**Context:** Middle-aged and elderly patients who do not have existing heart disease or diabetes are often started on statin drugs by their physicians. These people may have varying levels of cardiovascular risk based on Framingham Risk Assessment. **Objective:** To determine whether patients in a primary prevention situation who are started on a statin have better outcomes after five years of use compared with a matched cohort of individuals. **Design:** A retrospective cohort study. **Participants:** Patients of family physicians age 50-79 years old who do not have existing cardiovascular disease or diabetes. **Exposure cohort:** Participants who were on a statin drug on December 31, 2009. Comparison cohort: For each person in the exposure cohort a person of the same sex and age (+/- 5 years) who was not on a statin on December 31, 2009 will be included in the comparison cohort. **Outcome measures:** Primary measures were death or development of cardiovascular disease at end of follow-up period (five years). Secondary measures were lipid levels, hypertension, Framingham score at end of follow-up period. Outcome will also be assessed for each risk category (low, intermediate, and high) at the inception of the cohort. **Results/Analysis:** This is being submitted as a protocol poster but we do anticipate having results by the time of the conference. Cross tabulations between group and primary outcomes will be used to do chi square analysis and determine relative risk. Lipid levels and development of hypertension will be compared between the groups. Multivariate analysis will be used to compare outcomes across Framingham risk levels. **Conclusion:** We anticipate that statins will be useful for primary prevention in people with high-risk Framingham scores.

### 554 A Non-Directive Health Coaching Intervention: Description and qualitative evaluation

*Heather Pitcher, BN, NP, St. John's, NL; Marshall Godwin, MD, MSc, FCFP, St. John's, NL; Andrea Pike, MSc, St. John's, NL*

**Context:** Change in lifestyle is efficacious in effecting improvement in health outcomes, but adherence to lifestyle change decreases its effectiveness. **Objective:** To determine whether health coaching aimed at understanding the barriers to change will lead to a change in thinking (self-efficacy) and a more sustained change in lifestyle. **Design:** A randomized controlled trial with a qualitative assessment of the intervention. **Participants:** Two hundred patients age 40-60 years old without existing cardiovascular disease, hypertension, or diabetes. **Intervention:** The intervention group will receive a 6-month program of health coaching from a nurse trained in the Neufield method. The program will be delivered in groups of 10-20 people, with a group meeting at the beginning and end of the 6-month period. There will be four individual one-on-one sessions during the six months plus as-needed telephone access to the health coach. The coaching sessions will not be



focused on the development of a program of diet, exercise, and other lifestyle changes but rather on the individual's barriers to change. The coach will take a non-directive, facilitatory approach. **Control group:** The 100 people randomly allocated to the control group will receive usual care from their physician and will be asked not to embark on a formal program aimed at lifestyle change over the next six months. **Outcome measures:** Outcomes will be measured at 6 months and 12 months. Primary measures are lifestyle change measured on the Simple Lifestyle Indicator Questionnaire (SLIQ) and self-efficacy measured using the Health-related Self Efficacy scale. Secondary outcomes will be Framingham score, fasting blood glucose, HbA1c, lipids, blood pressure, and health-related quality of life. **Qualitative component:** For each of the 7 or 8 groups enrolled in the intervention, two people with the best outcomes and two people with the worse outcome (at 6 months) will be interviewed (semi-structured) to assess their perspective on health coaching and its usefulness. **Results/Analysis:** This is being submitted as a protocol poster with a detailed description and qualitative assessment of a unique non-directive health coaching intervention. We do anticipate having some results by the time of the conference. **Conclusion:** Results of the main study will not be available. The detailed description of the intervention and the qualitative assessment of the participant's perspectives will be presented.

#### 555 Health Coaching to Effect Lifestyle Behaviour Change: A clinical trial of individuals with pre-disease

Andrea Pike, MSc; Marshall Godwin, MD; Kris Aubrey-Bassler, MD; Shabnam Asghari, PhD; Alice Gaudine, PhD; Farah McCrate, PhD (ABD); Veeresh Gadag, PhD; Sandra LeFort, PhD; Shirley Solberg, PhD; Cassidy Brothers, BSc; Heather Pitcher, NP

**Context:** Cardiovascular disease (CVD) is the leading cause of death in Canada. Newfoundland and Labrador has the highest prevalence of CVD in the country; many of the risk factors for CVD are also highly prevalent in this province including type 2 diabetes and hypertension. Targeting the risk factors for CVD can help decrease the likelihood (or delay the onset) of developing overt CVD. **Objective:** To determine if a six-month health coaching intervention in those with pre-disease (pre-hypertension or pre-diabetes) but without pre-existing CVD, is an effective strategy to change lifestyle behaviour and prevent or delay onset of frank diabetes, hypertension, and CVD. **Design:** Randomized controlled trial. **Setting:** Community. **Participants:** Adults aged 40 to 60 years who have pre-diabetes and/or pre-hypertension (fasting blood glucose between 6.0 and 6.9 mmol/L and/or blood pressure between 130 and 139 mmHG systolic and/or 85 and 89 mmHG diastolic). **Intervention:** This is a six-month intervention. Participants will meet with a nurse trained in health coaching once/month. The first and last meetings will be completed in groups of 20; the four other meetings are one-on-one. Follow-up assessments will be conducted at 6 and 12 months for both groups. **Outcome measures:** Simple Lifestyle Indicator Questionnaire (SLIQ) is the primary outcome measure. Secondary **Outcome measures:** self-efficacy, global cardiovascular risk, fasting blood glucose, HbA1c, lipids, blood pressure, progression to overt disease, and health-related quality of life. A qualitative assessment will be conducted at the end of the study to learn more about participants' perspectives. **Results:** Recruitment and enrollment are ongoing; preliminary results reported for approximately 75% of participants in October 2014. **Conclusion:** Newfoundland and Labrador has a high prevalence of CVD and is an ideal context in which to investigate the potential benefits of a lifestyle intervention aimed at reducing the risk of CVD. Identifying, targeting, and intervening with pre-diseased patients early in primary prevention may help decrease the likelihood of developing CVD.

#### 556 Ther Eldercare Project: An RCT of a nurse intervention in the old elderly – Final results

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**Context:** Seniors age 80 and older can be broadly categorized into two groups: those with multiple morbidities, on many medications, and often in personal care or nursing homes, and those who are community-dwelling, independent-living, and functioning well cognitively. This study is about the latter group. **Objective:** To determine if a nursing intervention involving an in-home assessment to identify issues that might impact health and well-being, plus a one year follow-up to address the issues, can improve outcomes compared with usual care. **Design:** Randomized controlled trial (RCT). **Participants:** Two-hundred and thirty-six community-dwelling, independent-living, and cognitively functioning (MMSE>25) seniors aged 80 or older. **Intervention:** A nursing intervention involving an in-home assessment to identify issues that might impact health and well-being, plus a one year follow-up to address the issues. **Outcome measures:** Health status and quality of life measured on the SF-36 and the CASP-19, satisfaction with medical care on the PSQ-18, symptomology, utilization of community services, and utilization of health care services. **Results:** There were no differences between the intervention and control groups based on age, sex, or marital status. The intervention group were more educated than the control group with 52% vs 35% having some post-secondary education. There was no difference between intervention and control on any of the eight subcomponents of health status measured on the SF-36 or on the overall health status measured on the CASP-19. There was no difference in overall satisfaction with health care or satisfaction with the five components of care as measured by the PSQ-18. There was no difference in utilization of community services, formal or informal, between the two groups. There was no difference between intervention and control in utilization of health care services: physician's visits, hospitalization, emergency room visits, or use of diagnostic services. **Conclusion:** An intensive intervention aimed at identifying and resolving problems that might affect the health of independent-living, cognitively-functioning oct-nongenerians did not make a difference to health status, health resource utilization, or satisfaction with care after one year. This subgroup of seniors are overall healthy and do not use a lot of health resources.

#### 557 IMG Performance on the CFPC Certification Exam

Shirley Schipper, MD, Edmonton, AB; Judith Belle Brown, PhD, London, ON; Shelley Ross, PhD, Edmonton, AB

Most of Canada's 17 family medicine residency programs train international medical graduates (IMGs). Near the end of training, usually within a few months of graduation, all family medicine residents in Canada, including IMGs, write the national certification exam. In both the written and oral parts of the exam, IMGs perform less well than Canadian medical graduates (CMGs). The failure rate across Canada is higher for IMGs. IMGs who fail the certification exam are not able to practice in some regions in Canada, and others with only with a restricted license. To rewrite the exam is both stressful and expensive. Providing insight into performance for both CMGs and IMGs may help residency programs in multiple areas: exam preparation activities, knowing which areas to focus on specifically for IMG training, and tailoring programs to increase exposure in specific areas. Knowing the underlying reasons can guide curriculum change or increase targeted training for those who require it. This may improve the pass rate for IMGs in the future, which would allow more IMGs to practice without a restricted license. This research involves reviewing and analyzing the failed CFPC exam papers of IMGs and CMGs. This presentation will provide some initial results and patterns seen in how these candidates perform, and in particular, on the SOO (simulated office oral) portion of the exam.

#### 558 Predicting Performance of Family Medicine Residents Using a Critical Thinking Skills Test

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Michael Allan, MD, CCFP, Edmonton, AB; Chris Westbury, PhD, Edmonton, AB; Shelley Ross, PhD, Edmonton, AB

Critical thinking (CT) is variably defined as a set of skills including interpretation, analysis, evaluation, inference, explanation, and self-regulation. The practice of medicine requires skills in developing an accurate diagnosis and choosing appropriate treatments; misdiagnosis can result from poor CT skills. The California Critical Thinking Skills Test (CCTST) is the gold standard for measuring CT. A systematic review of using the CCTST to predict academic and clinical performance in various health fields showed a positive correlation. In our FM residency program, we are studying the correlation between the CCTST and other measures (e.g., CaRMS selection criteria, MCAT, rotation evaluations, remediation data, scores on the CCFP qualifying exam). During this session we will present preliminary data related to this study with a focus on how the CCTST may be valuable as a predictor for resident success, and ways in which CT training can be explicitly included in the curriculum.

### 559 Hospital-Based Services for Opioid- and Alcohol-Addicted Patients (H-SOAP): Rapid treatment protocol

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**Context:** Although alcohol and opioid addiction is a major cause of hospitalizations, ED visits, and mortality, few hospitals offer addiction services, and community addiction programs often have long waiting lists and complex intake procedures. **Objective:** To determine whether alcohol- or opioid-addicted people who receive rapid, facilitated appointments at hospital-based addiction services have better outcomes than those who receive usual care (self-initiated appointments within two to four weeks). **Design:** Randomized controlled trial whereby half of participants receive rapid, facilitated substance use service appointments, and half face usual wait times and independent initiation of medical appointments. **Participants:** 124 adults with alcohol and/or opioid use disorders, recruited through three hospital-affiliated, inpatient, non-medical withdrawal management centres in downtown Toronto. **Intervention:** Rapid facilitated access to hospital-based addiction programs providing three core interventions: i) optimal management of withdrawal, ii) early facilitated access to pharmacotherapy and counselling, and iii) shared care with the patient's family physician. **Outcome measures:** Treatment retention: we will track the number of subjects in each group who attend the addiction service and the mean number of visits per participant. Health care utilization and cost: for each subject, provincial databases will be used to track, from 24 months before to 12 months after the initial visit, the number of: a) hospitalizations and hospital days, b) ED visits, and c) primary care visits and outpatient laboratory services. Monthly interviews inquire about ED visits, hospitalizations, and outpatient medical visits. Prescriptions: for patients eligible for drug benefits, provincial databases will be used to evaluate pre-post (prescribing from 24 months before study entry to 12 months after) changes in opioid and benzodiazepine prescribing, and prescribing of buprenorphine, methadone, and anti-alcohol drugs such as naltrexone. Substance use: at enrollment and at six and 12 months after enrollment, participants will be asked about their average substance use over the past month. **Results:** Early impressions indicate that the protocol improves treatment retention and outcomes. **Conclusion:** If H-SOAP demonstrates that rapid facilitated access to hospital-based addiction services reduces health care utilization, other hospitals and primary care clinics may implement similar projects with the same results.

### 560 Implantation du suivi de grossesse médecin-infirmière à l'UMF Manicouagan : un nouveau modèle de collaboration

Esther Cimon, inf. Clinicienne; Émilie Gagnon, MD; Geneviève G. Rivest, MD; Johanne Harrisson inf. Clinicienne; Judith Lajeunesse, MD; Louise Marcheterre, MD

**Contexte :** Au Québec, on évalue que le tiers des femmes ne peuvent avoir un rendez-vous avec un médecin de famille au premier trimestre de la grossesse (gouvernement du Québec, 2012). Parallèlement, en 2011 dans la Manicouagan, nous avons assisté à une augmentation de 30 % du nombre de grossesses. Ces faits, combinés au manque d'effectifs médicaux nous ont amenés à innover en implantant un nouveau type de suivi conjoint médecin/infirmière en obstétrique. **Objectifs :** Les objectifs de notre initiative étaient de maintenir l'accessibilité au suivi de grossesse en première ligne, de préserver la continuité et la qualité des soins, et de dépister précocement les situations à risques. **Méthodes :** La méthodologie encadrant l'implantation de cette nouvelle pratique s'est traduite par une démarche structurée comprenant la création d'un comité de travail interdisciplinaire, l'élaboration d'un calendrier détaillé du suivi obstétrical, la définition des rôles professionnels attendus, la mise en place d'un cadre de formation et de supervision pour les infirmières, des rencontres de suivi visant l'amélioration continue, et l'évaluation de la satisfaction auprès de la clientèle. **Résultats :** Les résultats de l'implantation du suivi de grossesse conjoint médecin-infirmière à l'Unité de médecine familiale de Manicouagan se sont traduits par de nombreux résultats positifs. Les médecins ont pu suivre un plus grand nombre de grossesses, dégager leur horaire pour la clientèle non-obstétricale, et jouir d'une plus grande tranquillité d'esprit en cas d'absence. Les infirmières ont apprécié élargir leur champ de compétence et leur autonomie professionnelle. Finalement, les patientes ont affirmé avoir aimé l'expérience du suivi conjoint et qu'elles voudraient revivre l'expérience lors d'une prochaine grossesse. Grâce à ce nouveau mode de suivi, l'offre de service en périnatalité a donc pu être maintenu et amélioré.

### 561 Caring for Children in Foster Care: Is this a unique population?

Amie Davis, MD, CCFP, Burlington, ON; Anne Kittler, MD, CCFP, Burlington, ON; Michael Mills, MD, CCFP, FCFP, Burlington, ON; Graham Swanson, MD, CCFP, FCFP, Burlington, ON

Children in foster care struggle with more physical, mental and emotional health problems than their peers. Their health records are seldom available. Disjointed family doctor care is common. Our project describes this vulnerable group of children and youth in foster care: their mental health diagnoses, medical conditions, and immunization status. **Method:** A before/after chart review describing health conditions at the start of the project and then five years later of over 600 children in foster care with the Children's Aid Society of Hamilton. We surveyed both paper and electronic medical records to form the database. Immunization rates were compared with PHAC Guidelines. Diagnosis rates were compared with population standards of peer groups. Children in foster care live with a substantial burden of mental health and physical illness conditions. At admission into foster care immunization rates do not meet Canadian guideline standards. Gathering scattered medical records is a huge undertaking. Disruption and displacement from family, school, and the link with primary health care profoundly affects the health state of foster children and this makes them starkly different from their peers. Enabling a trusted relationship with a family doctor team goes a long way to improving this situation.

### 562 Factors That Influence the Implementation of Knowledge Translation Tools

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**Objective:** This study focused on the development of knowledge translation (KT) tools and strategies to enhance implementation of guidelines developed by the Canadian Task Force on Preventive Health Care (CTFPHC); explore how physicians select and use these tools and strategies; and examine factors that facilitate and sustain change. **Design:** Mixed-methods study with surveys and interviews. **Participants:** family

physicians (n=70) in on-going Practice-Based Small Group learning program across Canada. **Intervention:** Participants were delivered an educational module ("Breast Cancer Screening-Conversations with Women") including CTFPHC guidelines and practice tools. **Methods:** Participants discussed the educational module as part of their usual learning session and documented on a personal practice reflection tool any planned practice change(s) that were made after 3 months. Participants also completed an online survey examining the barriers and facilitators to implementation of practice tools. These factors were further explored during one-on-one telephone interviews. **Findings:** After completion of the educational module, over 70% of survey respondents (35/48) indicated that they followed through with planned practice changes and used at least one of the seven practice tools provided in the module. The tools that provided new information with respect to screening were used most often although the need for the tool(s) was limited once the information was internalized. Algorithms and patient handouts were also perceived as useful while a physician video providing strategies to explore screening with patients was not endorsed. Factors that influenced the utilization of practice tools included awareness, discussions with colleagues, quality of evidence presented, ability to integrate tools into EMR, and perceived conflict with other guidelines. Patient reactions to the guidelines were also important. Both physicians and patients often did not perceive harms of screening. **Conclusion:** Family physicians found that practice tools are useful in implementing practice changes, as long as they are based on good evidence and are easily accessible. However, once the information had been internalized there was no need for further reference. This information will inform the development of sustainable KT strategies for guideline implementation by the CTFPHC and the development of future continuing professional development (CPD) initiatives by the Foundation for Medical Practice Education (FMPE).

### 563 La condition physique maternelle, les modes d'accouchement et l'orientation du bébé à la naissance

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**Contexte :** La Société des Obstétriciens et Gynécologues du Canada recommande aux femmes enceintes trente minutes d'activité physique modérée par jour. Cependant, il n'est pas encore bien documenté dans la littérature si une bonne condition physique maternelle est associée à moins de complications chez la mère et le nouveau-né. **Objectif :** Analyser la condition physique maternelle chez les femmes ayant eu une césarienne d'urgence, un accouchement vaginal avec ventouse et/ou un nouveau-né transféré à la pouponnière. **Plan :** Cohorte. **Participants :** À la 16e semaine de grossesse, les patientes répondant aux critères d'inclusion ont effectué des mesures anthropométriques et cardiorespiratoires. **Instrument :** La dépense énergétique pour les activités physiques de modérées à vigoureuses par semaine a été mesurée avec le questionnaire validé PPAQ (Pregnancy Physical Activity Questionnaire) et la condition cardiorespiratoire (VO<sub>2</sub> peak) lors d'une épreuve d'effort sur tapis roulant. Le mode d'accouchement, l'instrumentation et/ou le transfert à la pouponnière ont été recueillis du dossier médical de la mère et du nouveau-né. **Mesure des résultats :** Soixante-cinq femmes enceintes (IMC : 24,6 Kg/m<sup>2</sup>, VO<sub>2</sub> peak : 30,4 ml/kg/min, dépense énergétique : 68,3 Mets\*h/sem) ont participé à l'étude. Quarante-sept accouchements vaginaux dont huit avec ventouse et dix-huit césariennes dont onze césariennes d'urgence ont été identifiés. Chez les femmes ayant eu une ventouse, la moyenne d'IMC était de 29,1 Kg/m<sup>2</sup> et seulement 14 % (moyenne : 26,87 mL/kg/min) ont atteint un bon VO<sub>2</sub> peak pour l'âge selon les données du « Cooper Institute for Aerobics Research » alors que 45 % des césariennes (31,8 mL/kg/min) et 53 % des accouchements vaginaux spontanés (30,7 mL/kg/min) l'ont atteint. La dépense énergétique était supérieure pour les accouchements vaginaux spontanés (75,1 Mets\*h/sem) que pour les ventouses (57,6 Mets\*h/sem) et les césariennes d'urgence (56,6 Mets\*h/sem). Chez les patientes dont les bébés ont été transférés à la pouponnière, le VO<sub>2</sub>peak et la dépense énergétique étaient similaires à la cohorte. **Résultats :** Dans notre cohorte, les femmes ayant eu une ventouse avaient une moins bonne condition cardiorespiratoire alors que les femmes ayant eu un accouchement vaginal avaient une dépense énergétique supérieure pour les activités de modérées à vigoureuses. **Conclusion :** La condition physique et la pratique d'activité physique semblent influencer certains issues de grossesse.

### 564 Evaluating Field Notes in a Family Residency Program

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**Context:** To support the assessment of competence, in the 2013 Red Book, regular use of field notes is stated as an accreditation requirement of the College of Family Physicians of Canada. Field Notes are narrative forms documenting resident formative feedback and direct observations. The University of Ottawa family medicine residency program, graduating 70 residents annually, documented direct observations on a variety of different structured forms, but in 2011 introduced its own paper-based Field Note. **Objective:** With the shift to field notes, we sought to measure the impact of the program change on both quantity and quality by collecting and reviewing all forms documenting preceptor feedback to residents produced from 2009 to mid-2013. Though the quality of field notes can vary significantly between clinical supervisors and they are dependent on faculty development, evaluating them requires a scoring rubric. **Instrument:** We created a 5-parameter scoring tool based on whether there were: 1) CanMED-FMs roles mentioned, 2) specific examples of proficiency, 3) discrete elements for improvement, 4) recommended plan(s), and 5) the overall word count. **Design:** After establishing inter-rater reliability the tool was used to review all 4300 available written resident observations (field notes and all other direct observation forms) retained by the department, comparing the results based on the document format. **Participants:** As this was a quality improvement program evaluation exercise, a Research Ethics Board exemption permitted access to all available forms produced in all sites by all preceptors relating to all residents as long as forms were anonymized. **Results:** To date, of the 3443 forms currently reviewed, out of a maximum of 9, Field Note scores were significantly better (5.30; Standard Deviation [SD] 1.76) than other forms (4.47; SD 1.52) documenting resident observations. **Discussion:** We have demonstrated that the use of Field Note results in improved quality of documentation in resident formative assessment. This is likely due to a form that encourages narrative categorized comments complemented with associated faculty development. **Conclusion:** Field notes, a new requirement for assessing competence and providing written feedback in Canada, encourage better documentation and have a potential for building a competency portfolio for each trainee.

### 565 Invisible Men: The experience of men with abortion

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**Context:** Men are often an invisible presence when it comes to abortion. Their experience in the process of abortion is currently poorly defined. A better understanding of men's experience in abortion could assist medical professionals who provide abortions for women and their partners. **Objective:** To explore men's experience with abortion. **Design:** Mixed methods using surveys and semi-structured interviews. **Participants:** Men whose female partner had an abortion at Willow Women's Clinic in Vancouver, British Columbia. 50 surveys were collected; 6 men were interviewed. **Intervention:** Surveys were distributed to men whose female partner had recently had an abortion at the clinic. The data was analyzed with the use of descriptive statistics. Semi-structured interviews were then conducted following a phenomenological approach. Thematic analysis was used to analyze interview transcripts for conjoint and disparate themes. **Outcome**



**measures:** Knowing more about men's experience with abortion gives further information on care to providers in abortion clinics. **Findings:** The men ranged in age from 19-44, 10/30 were born in Canada, and only 7/30 identified as white/Caucasian. Half of the relationships were longer than 5 years. All pregnancies but one were unplanned. Younger men were more likely to describe panic with unplanned pregnancy. In the interviews, initial reactions to pregnancy included shock, fear, and happiness. Open communication was deemed important to the men in processing the abortion. Qualities that made the experience difficult were: family disapproval to have a child presently, financial or personal time limitations, stigma, and negative emotions like guilt or regret. All six men described it as difficult to see their partner in emotional or physical distress. It was important to be supportive or strong for their partner. **Conclusion:** Men are usually an invisible presence in abortion. Just like women, men have a wide range of negative and positive emotions and experiences with unplanned pregnancy and abortion. Women and men in safe relationships should be encouraged to openly communicate with their partners to foster communication and support. Medical professionals should be aware that men may have their own unique experience with abortion and be aware of including men in the process or discussion.

#### 566 Lifestyle Intervention on Metabolic Syndrome in Primary Care Practice: Results from CHANGE study

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**Context:** Lifestyle modifications have been recommended as the initial treatment strategy to prevent and treat metabolic syndrome (MetS). **Objective:** To describe the effects of an intensive lifestyle intervention on changes in MetS criteria. **Design:** A longitudinal intervention study (CHANGE: Canadian Health Advanced by Nutrition and Graded Exercise). **Participants:** Patients diagnosed with MetS were recruited by their family physicians from one of three primary care facilities (Toronto, Edmonton, Quebec). Patients had to be  $\geq 18$  yrs, with a BMI  $< 35$  kg/m<sup>2</sup> and could not have significant medical co-morbidities, e.g., heart disease, stroke, advanced diabetic complications. The preliminary sample included 226 patients (52.6% female, mean  $\pm$  sd age: 58.6 $\pm$ 9.7 yrs, BMI: 31.8 $\pm$ 3.5 kg/m<sup>2</sup>, waist circumference: 108.5 $\pm$ 10.5 cm). **Intervention:** Patients were evaluated at baseline (n=226) and complete evaluations were available at time of writing at 3 (n=127) and 6 (n=44) months after the initiation of intensive diet and exercise intervention. Patients received an individualized and graded combined nutrition and exercise intervention which was supervised on a weekly basis by a nutritionist, a kinesiologist, and their family physician. **Outcome measures:** Compliance with the dietician was 82% and 92%, and with the kinesiologist was 68% and 78% at 3 and 6 months, respectively. Changes in the presence of MetS criteria between baseline and 3-month follow-up. **Results:** At 3-month and 6 month follow-up, 11.8% and 21% of the fully evaluated patients no longer met 3/5 criteria for MetS without pharmacotherapy. 39% and 43% improved by at least one criterion at 3 and 6 months respectively. In contrast, 9.4% developed at least one criterion since baseline. Since baseline, 21.3% no longer had fasting blood glucose  $> 5.6$  mmol/L, 20.5% no longer had blood pressure values over 130/85 mmHg, 18.1% no longer had fasting triglycerides  $> 1.7$  mmol/L, 13.4% no longer had an elevated waist circumference, and 10.2% no longer had low HDL cholesterol ( $< 1.0$  mmol/L males,  $< 1.3$  mmol/L females). In contrast, 7.1% of patients developed either high triglycerides or low HDL cholesterol. **Conclusion:** These data show that control of MetS is feasible in primary care with intensive diet and exercise and show increasing patient compliance with time.

#### 567 How Drug Class Reviews Can Impact Practice: Findings from the Ontario Drug Policy Research Network

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**Context:** The pharmaceutical environment is rapidly changing. Ongoing review of drug classes ensures that Ontario's public drug programs are making current and appropriate medications available to physicians and patients for disease prevention and management. **Objective:** To describe how establishing the comparative effectiveness, safety, accessibility, and cost of medications in a drug class can affect policy change and clinical practice. **Design:** The drug class review (DCR) framework is comprised of qualitative research, observational population-based analyses, systematic reviews and network meta-analyses, reimbursement-based economic analyses, and environmental scans. Stakeholders are engaged through workshops, written feedback, and a modified Delphi method. **Participants:** Each review focuses on a specific patient population relevant to the drug class of interest. Various other stakeholders are engaged throughout the DCRs, including primary care providers, specialists, pharmacists, patients, industry, professional organizations, and advocacy groups. A Citizen's Panel was formed to provide public input on the DCRs. **Instrument:** DCRs include a semi-structured interview guide (qualitative research), access to provincial and national administrative databases (observational and economic analyses), and data screening and abstraction tools (systematic reviews). **Outcome measures:** Each DCR considers outcome measures related to efficacy, safety, accessibility, and cost that are suitable for the drug class of interest. Stakeholders are consulted to ensure that appropriate outcome measures are captured. All analyses are interpreted using a health equity lens. **Results:** Since August 2013, the ODPN has initiated four DCRs (triptans, inhaled corticosteroids/long-acting beta agonist combination products, long-acting muscarinic agents, and testosterone replacement therapy). All DCRs have yielded large systematic reviews on efficacy and safety outcomes. Practice-related findings across each review pertain to physician prescribing, including prescribing patterns, alignment with guidelines/policies, influence of cost, and knowledge of drugs and coverage criteria. By comparing results from studies within each DCR, physician prescribing behaviour can be well understood and targeted by knowledge translation. **Conclusion:** The DCRs elucidate the importance of considering evidence from multiple research fields and soliciting extensive stakeholder feedback when making recommendations for policy and practice. Overall, this comprehensive DCR approach informs public policymaking and identifies areas for improvement in clinical practice that will ultimately enable better access to appropriate therapies.

#### 568 Politique, utilisation et gestion des échantillons médicaux à l'Unité de Médecine Familiale de Gaspé

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**Contexte :** L'utilisation des échantillons de médicaments dans les établissements de santé suscite d'importantes inquiétudes pour la santé de la population et contribue à l'augmentation des coûts du système de santé en favorisant le renouvellement des médicaments brevetés, plus coûteux. **Objectif :** Description de la politique, de l'utilisation et de la gestion des échantillons médicaux à l'UMF de Gaspé. **Méthodologie :** Collecte de données à l'aide de questionnaires auto-administrés pour les utilisateurs et pour les gestionnaires d'échantillons médicaux dans l'UMF et inventaire de l'armoire à échantillons de l'UMF. Toute personne utilisant des échantillons de médicaments, ou pouvant le faire, a reçu un questionnaire. Le retour du questionnaire a servi de consentement à participer à l'étude. **Résultats :** 76,5 % des répondants affirment utiliser des échantillons de médicaments à l'UMF. Près de la moitié (46,2 %) ne savent pas si une politique existe. Seulement 1 utilisateur (7,7 %) écrit toujours au dossier les raisons pour lesquelles il remet un échantillon et 5 ne le font jamais (38,5 %). 4 utilisateurs (33,3 %) inscrivent toujours une note au dossier lors de la remise d'un échantillon et 5 (41,7 %) le font occasionnellement. Un utilisateur (7,7 %) remet fréquemment un échantillon même si ce n'est pas son premier choix tandis que 7 (53,8 %) ne le font jamais.

Seulement 1 utilisateur (8,3 %) affirme toujours référer le patient à son pharmacien communautaire lors de la remise d'un échantillon tandis que 5 (41,7 %) ne le font jamais. Des 17 répondants, 13 (76,5 %) seraient plutôt ou très favorables à l'implantation d'une politique écrite du DMFMU encadrant la gestion des échantillons. **Conclusion** : La gestion et l'utilisation des échantillons de médicaments à l'UMF de Gaspé sont actuellement inappropriées. Une politique de gestion des échantillons gagnerait à être implantée à l'UMF de Gaspé, afin d'encadrer l'utilisation et la gestion des échantillons médicaux.

### 569 Integrating SharcFM Virtual Patient Cases in the Family Medicine Clerkship Curriculum

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**Context:** The Shared Curriculum in Family Medicine (SharCFM) virtual patients library has a broad set of case designs, with topics covering all 23 shared topics. **Objective:** the variety of cases that can be repurposed by clinical teachers to fit the learning designs of their sessions is broad. Different topics suggest different approaches. **Design:** OpenLabyrinth virtual patient cases formed the core material for our clerkship sessions. We used an action research design to iteratively improve our session learning designs across a number of family medicine rotations. **Participants:** All clerks at the University of Calgary participated in these sessions during their family medicine rotations. **Intervention:** We used three learning designs where case play and group discussion was conducted: i) during live face-to-face sessions; ii) asynchronously in online extended sessions, with discussion forum support; and iii) in "flipped-thinking" style, where cases were played asynchronously online prior to live face-to-face discussion of choices and outcomes. **Outcome measures:** Teachers' observations about fitness for purpose of the learning design chosen. Learners' observations about fitness for purpose of case content, learning design, and material complexity. **Results:** We iteratively used feedback from group discussions, along with forum logs of participants' comments and suggestions for session improvements. **Discussion:** Creating good learning designs using virtual patient cases is quite dependent on the session topic, with some topics containing more uncertainty than others. Uncertainty is a core component of presentations to generalist disciplines such as family medicine; this needs to be accommodated and exposed in clerkship teaching. **Conclusion:** This program evaluation has demonstrated that a variety of learning designs should be considered in how core topics are presented using virtual patients. The next phase of this study will compare effectiveness and efficiency of these various learning designs.

### 570 Shared Authoring for Shared Cases: National collaboration on SharCFM virtual patient cases

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**Context:** The Shared Curriculum in Family Medicine (SharCFM) initiative of CFPC's clerkship directors set out in 2009 to create a set of core learning objectives, clinical cards, and virtual patients. **Objective:** The sharing of useful and reusable learning materials that are openly available and can be repurposed by clinical teachers to fit their local purposes. **Design:** OpenLabyrinth was chosen as an open-source, open-standards virtual patient platform that supports free sharing of content. We used an action research approach to iteratively improve our case authoring, design, and peer review processes across a number of collaborative authoring teams. **Participants:** We purposively selected groups of case authors over several different styles of collaborative teams. Authors included family medicine residents who chose to create learning objects as part of their required scholarly activity. We partnered them with community and academic faculty, and support staff over 3 years, in varying configurations of author team mix. **Intervention:** We progressively moved from an authoring style where authors were given simple direction, learning objectives, and broad creative freedom, to a more structured approach with increased role definitions and expectations. **Outcome measures:** We initially used simple measures such as hours spent per case and cases generated per year. We found that a qualitative approach looking more holistically at the needs of a collaborating team to be more helpful. **Results:** We iteratively used feedback from individual and focus group discussions, along with trouble logs of authors' complaints and suggestions for software improvements. This feedback has created major changes in the authoring user interface of the OpenLabyrinth virtual patient platform. **Discussion:** Creating good virtual patient cases is time consuming and clinical authors may not have the time or skills to flesh out all areas of re-usable case. Repeated re-examination of enabling and inhibitory factors in getting authors to work in teams also highlighted needed changes in our adjunct materials and metadata associated with the cases. **Conclusion:** Using a range of educational levels of expertise in an authoring environment setup specifically for collaboration leads to stronger, more robust case materials.

### 571 Using Modified Nominal Group Technique to Develop Entrustable Professional Activities for Family Medicine

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**Context:** Entrustable professional activities (EPAs) represent an intuitive approach to organizing outcomes for a competency-based curriculum. As part of the transition towards the Triple C Competency-based Curriculum, the family medicine residency program at Western University began a process of defining EPAs as its outcomes. **Objective:** Develop 10 EPAs for which graduating residents must have competence in the area of ambulatory care in family medicine. **Design:** After a review of various competency-based frameworks, the Residency Training Committee defined the domains of clinical care where graduating residents must achieve competence: Scholarship, Hospital Care, Ambulatory Care, Residential Care, Procedures, and Leadership. The first nominal group technique session was held in early 2014, focusing on the competency area of Ambulatory Care, with 12 family medicine faculty representing different geographic areas, teaching experience, and practice scopes. **Participants:** Twelve clinical teachers representing different practice settings (urban, regional, rural Southwestern Ontario), both genders, different scopes of practice, and a range of clinical and teaching experience. **Intervention:** **Participants:** Participants engaged in a two-hour modified nominal group discussion facilitated by the first author. **Outcome measures:** Ten EPAs for ambulatory care in family medicine. **Results/Findings:** The top ten EPAs: diagnose and manage common acute (urgent and non-urgent) presentations and diseases across the life cycle, diagnose and manage common subacute and chronic presentations and diseases across the life cycle, provide wellness and preventive care across the life cycle, diagnose and manage common mental health presentations and diseases across the life cycle, diagnose and manage undifferentiated patient presentations across the life cycle, perform common office procedures, diagnose and manage multimorbidity, provide care for marginalized populations, diagnose and manage pregnancy-related conditions, and provide palliative and end-of-life care. **Discussion:** The top ten EPAs succinctly summarized key areas of focus for curriculum design and assessment in family medicine ambulatory care. They have strong concordance with EPAs developed in the same area by another Canadian family medicine residency program. **Conclusion:** The modified nominal group technique was an enjoyable, efficient, and effective method of developing EPAs for a family medicine residency program.

## 572 Resident Poster FMRounds.com: A podcast website for family medicine education

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With the widespread availability of hand-held computers, smartphones, and tablets, being able to access learning resources anytime and anywhere has become the new norm. Audio podcasting is one of the new rapidly emerging educational tools. It involves informative audio excerpts that can be downloaded and listened to on audio-players. A survey of Canadian medical students at McMaster University in 2012 found that compared with conventional methods of learning such as textbooks, podcasts were the preferred learning resource. In light of this information, I chose to create a podcast website called FMRounds.com. It features a link to several audio podcasts that can be accessed and downloaded with most computers, tablets and smartphones. It was designed with the intention of providing medical students with an easily-accessible, convenient, and up-to-date resource for learning about commonly encountered family medicine topics. Information presented in each podcast was obtained from a compilation of widely-supported medical resources. The majority of the podcasts were recorded using the program Audacity, an audio-editing tool. Subsequently, the recorded files were converted to MP3 format using the LAME MP3 encoder. The finished files were uploaded directly onto the podcast website and can be accessed at [www.fmrounds.com](http://www.fmrounds.com). Podcasting may allow the family medicine department at Western University to further develop the CanMEDS-FM model by broadcasting family-medicine-specific curriculum topics to its trainees. It may also present an opportunity for family physicians and residents to teach, and thus may encourage peer-to-peer collaboration.

## 573 Musculoskeletal Curriculum in Medical School and General Practice Residency Programs: A study of elective learners in sports medicine

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**Context:** Creating a comprehensive and representative musculoskeletal curriculum is a challenge both at the medical school level and in family medicine residency programs due to time limitations, class size, and preceptor skill-sets. **Objective:** To examine the learning experience of medical students and residents in an elective sports medicine rotation, as well as to categorize the patient presentations that they encountered. **Design:** Data was collected from medical student and resident case logs, which were kept during elective rotations at the Glen Sather Sports Medicine Clinic in the 2011/2012 year. The daily logs ask the learner to list the date, the hours worked, their preceptor, patient presentations seen, and their involvement in those encounters. **Findings:** The average experience was a 2-week elective with over 90% of time spent with a sports medicine physician, physiatrist, or orthopedic surgeon. On average, learners had 28 patient encounters per week—of these, 60% with an active performance role. The vast majority of cases seen involved the knee, followed by the shoulder. Ankle, low back, foot, lower leg, and head were also common. Overall, ACL tears were the most commonly seen diagnosis, followed by unspecified knee injuries and meniscal tears. This was followed by concussions, patellofemoral pain syndrome, other/unspecified shoulder injuries, generalized knee osteoarthritis, rotator cuff tendinopathy, anterior shoulder dislocations, ankle sprains, Achilles tendinopathy, other/unspecified back injuries/pain, rotator cuff tears, shoulder impingement syndrome and medial collateral ligament sprains. **Conclusion:** The most commonly encountered conditions by elective learners in a sports medicine rotation were analyzed and should be considered in the development of a musculoskeletal curriculum, as they represent conditions that family physicians refer to a sports medicine specialist clinic. The learning experience of elective learners is explored and can also be used to guide further musculoskeletal clinical curriculum development.

## 574 Old Challenges and New Strengths: Transforming the burdens of teaching into routine habits

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**Context:** Assessment in the new world of competency-based medical education can be challenging. Many of the traditional assessment tools do not adapt well to competency-based contexts. In response to this challenge, University of Alberta researchers developed the Competency-Based Achievement System (CBAS). CBAS is a framework, based on assessment for learning, which combines formative and summative assessment in a way that tracks progress towards competency. CBAS has been working well in family medicine residency. In this study, we evaluate the pilot implementation of CBAS in an enhanced skills program. **Objective:** To determine the extent to which CBAS incorporates the strengths and overcomes the shortcomings of previous assessment systems. **Design:** Qualitative program evaluation. **Participants:** Administrators, fellowship directors, preceptors, and fellows in sport and exercise medicine enhanced skills programs at two universities (n=22). **Instrument:** Periodic semi-structured interviews with participants. **Outcome measures:** Uptake and perception of CBAS (perception of benefit of CBAS, utility of CBAS in accurate assessment). **Findings:** Thematic analysis of the interviews identified several themes. Most respondents identified the major benefits of CBAS to be the prompting of formalized and structured feedback. A few discussed that CBAS has offered an opportunity to identify problem learners earlier. Some preceptors and fellows felt that CBAS would be useful with more junior learners, but not appropriate for fellows. Some preceptors stated that they had changed how they gave feedback to learners, even if they were not yet regular users of CBAS. With some users, uptake was a problem; nonetheless, opposition to CBAS was far less common than issues with competing responsibilities and time (which has been a consistent problem with assessment in medical education). Preceptors, administrators, and fellowship directors were more likely to express satisfaction with CBAS; fellows were least likely. **Conclusion:** While barriers do exist in implementing CBAS in enhanced skills, many of the concerns with the system related to the difficulty of balancing teaching and assessment with clinical responsibilities. Satisfaction with CBAS as an effective assessment system depended on the degree to



which users adhered to best practices in its use: frequent formative feedback, direct observation, and regular progress reports.

### 575 What Is the Point? Divergent perspectives on implementation of CBAS in two sports medicine clinics

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**Context:** Sport and exercise medicine (SEM) is in process of applying for program status with a Certificate of Added Competency (CAC). A specific requirement is the incorporation of competency-based assessment. One tool being considered for the SEM enhanced skills program is the Competency-Based Achievement System (CBAS). To determine the appropriateness of CBAS for SEM enhanced skills, a pilot implementation was set up as a trial in two different university programs. A key component to determine appropriateness of an innovation is to examine implementation fidelity—the degree to which a program in place adheres to the principles and processes intended by the developers of the innovation. **Design:** Qualitative program evaluation. **Participants:** Administrators, fellowship directors, preceptors, and fellows at two Canadian SEM enhanced skills programs (n=22). **Instrument:** Semi-structured interviews. **Outcome measures:** Degree to which users' stated use of CBAS is in alignment with basic principles and processes of CBAS. **Findings:** Misunderstandings of CBAS' purpose were common during interviews; nonetheless, many users expressed an understanding of at least some of its key principles. Key principles most commonly expressed: a) Formalizing feedback can lead to such benefits as: ongoing and immediate feedback (rather than clumps), specific and focused feedback, and it can prompt preceptors to remember to provide feedback as well as to address competencies in feedback; b) a few respondents identified issues of addressing problem learners early and saving time that would go towards four-month reports. Indicators of misunderstanding of basic principles included some expressions by respondents who identified CBAS as redundant or busywork, and identification of CBAS as just writing down feedback. A few respondents identified purposes for CBAS that do not resonate with its design. Specifically, some wanted to record topics of patient encounters or even incorporate a checklist of what a fellow has seen. **Conclusion:** While implementing CBAS in this new environment, there are various challenges, which cannot be overcome if preceptors' understandings of the CBAS tool vary from its goals. Even so, many respondents partially grasped the purpose of CBAS (some likely wholly grasp its purpose). As such, there is space to move forward and ensure effective use.

### 576 Resident Poster

#### Identifying Children Most at Risk: Evaluation of a pediatric complexity indicator tool

Sarah Funnell, MD; Tobey Audcent, MD, FRCPC; Alison Eyre, MD CM, CCFP; John Lyons, PhD; Lindy Samson, MD, FRCPC;

Michele Ward, MD, FRCP

**Context:** Certain social factors such as mental illness or poverty complicate basic medical illnesses predisposing patients to poorer health outcomes. If certain strategies are applied, i.e., allocating more time or more intense case coordination to patients with more socioeconomic stressors, it may be possible to narrow the gap in health disparity. Communicating social complexity between team members is the first step. **Objective:** To determine if the Child/Youth and Adolescent Needs and Strengths – Pediatric Complexity Indicator (CANS-PCI) as a communication tool captures the medical and social complexity of pediatric patients in a manner that is practical and user-friendly. **Design:** Survey research. **Participants:** 10 members of a multidisciplinary committee: social workers, nurses, psychologists, community pediatricians, and family physicians. **Instrument:** Application of the CANS-PCI tool to 8 scenarios and a satisfaction survey. **Outcome measures:** To determine if the participants felt that the CANS-PCI tool sufficiently captures complexity. Satisfaction with the result of the tool and user-friendliness were also studied. **Findings:** 8/10 participants completed the survey; 7 completed the survey correctly and were included in the study. Based on clinical experience, the majority of participants ranked all scenarios as moderate, high, or severely complex cases. After utilizing CANS-PCI tool, all respondents concluded that all cases required enhanced or intensive case coordination. The majority responded either by agreeing or strongly agreeing that the CANS-PCI tool accurately identified the complexity in 7/8 scenarios. 5/7 respondents felt that the tool was easy to use, but there were mixed responses to the time it took to use the tool. 3/7 respondents agreed or strongly agreed that they would use the tool in their practice, while 3/7 neither agreed nor disagreed (1 gave no response). **Conclusion:** The CANS-PCI tool accurately identifies complex patients who require enhanced or intense case coordination. It is easy to use, but may be time consuming. No low complexity scenarios were included in this study and for this reason the power of the tool to identify those truly more complex was not made explicitly evident to the participants. Perhaps if such cases were included, more participants would agree to use the tool in their practice.

### 577 Student Poster

#### Study: Wellness programs for undergraduate medical students in Canadian medical schools

Jemy Mary Joseph, HBSc, MSc; Tara Tucker; Marina Straszak-Suri

The importance of promoting physician wellness and resiliency has been well understood to be a key issue leading to physician sustainability. As recent US data indicates that nearly 50% of physicians experience at least one symptom of burnout, this issue is becoming critically important. (Shanafelt et al., 2012). The Royal College of Physicians and Surgeons of Canada has declared physician health a professionalism competency in the CanMeds Roles, thus recognizing the need for education in this area. Understanding one's own health needs requires developing self-awareness and emotional insight, which is not easily taught and is sometimes most required by those who feel that they have the least need for it. There is a crucial need for innovative new curricular design and assessment. Each of the Canadian medical schools now has an Office of Student Affairs to help deal with medical student issues relating to health and well-being. Some of the medical schools include formal teaching in this area, while others offer optional sessions and support for students in need. In order to gain an understanding of the current state of teaching in the area of physician wellness in undergraduate medical schools in Canada, we proposed a study of their curricula as well as available resources in this area through a survey. This information would provide a baseline and may bring to light innovative approaches in this field.

### 578 Appraisal of Canadian and American Treatment Guidelines for Use of Opioids for Chronic Non-Cancer Pain

Matt Solomon, MBBS; Alexis Lemmex, MSc, MD; W.E. Osmun, MD, MClSc, CCFP, FCFP; Lauren Kopechanski, MD, CCFP

**Context:** Chronic non-cancer pain (CNCP) carries a significant social and medical burden, with Canada being among the largest consumers of opioids in the world. Primary care physicians rely on clinical practice guidelines to help guide management of these complex patients. **Objectives:** The three goals in this study were 1) to evaluate the quality of the Canadian Guideline for Safe and Effective Use of Opioids for

## POSTERS • AFFICHES

the American Pain Society's Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain using the AGREE II tool, 2) to assess the underlying evidence for each recommendation, and 3) to review the conflict of interest among the guideline authors. **Methods:** Four reviewers scored both guidelines using the Appraisal of Guidelines for Research and Evaluation (AGREE) II tool, determined the level of evidence for each recommendation, and assessed the conflict of interest among the authors. **Results:** Overall, the American Guideline scored 3.75 out of 7 and was recommended with modifications, and the Canadian Guideline scored 5 out of 7 and was recommended without modifications. Of the 25 American Guideline recommendations, 21 (84%) were strong and 4 (16%) were weak. Furthermore, the level of evidence for the strong recommendations were high 0 (0%) times, moderate 4 (16%) times, and low 17 (68%) times. All 4 (16%) weak recommendations were supported by low-quality evidence. Of the 36 Canadian recommendations, 4 (11%) were grade A, 11 (31%) were grade B, and 21 (38%) were grade C. 15 (71%) of the authors in the American Guideline group declared a conflict of interest, while 25 (45%) authors of the Canadian Guideline group did so. **Conclusion:** Long-term opioid therapy for chronic pain management is necessary in many situations despite a lack of good evidence for their benefit and established risks. The strengths in design of both sets of guidelines cannot make up for the lack of high-quality evidence, nor the conflicts of interest among authors. More research needs to be done to elicit more high-quality evidence to provide the basis for a nationally recognized clinical practice guideline.

## 579 Student Poster

**Characteristics of Patients Participating in a Lifestyle Intervention for the Treatment of Systemic Hypertension**

A.R. Gallant, MSc, PhD (cand.) Québec, QC; A. Thiffault, RN, Québec, QC; J. Fortier, RD, Québec, QC; A-S Thibault; J-P Després, PhD; P. Poirier, MD; N. Alméras, PhD; I. Lemieux, PhD; C. Rhéaume, MD, PhD, Québec, QC

**Context:** The Canadian hypertension education program recommends increased physical activity, adoption of the Dietary Approaches to Stop Hypertension (DASH) diet, and reduction in sodium and alcohol intake for treatment and prevention of hypertension. **Objective:** To describe patients participating in an interdisciplinary lifestyle intervention to reduce blood pressure in a family medicine primary care setting. **Design:** Descriptive study. **Participants:** The study aims to recruit 60 sedentary hypertensive patients to participate in a 6-month randomized controlled trial. To be eligible, patients must be  $\geq 18$  years of age, sedentary (7-day measured steps/day and self-report), hypertensive (based on 24-h ambulatory blood pressure measurements [ABPM]), non-smoker, non-diabetic, and without dyslipidemia. **Intervention:** Patients are recruited by health care professionals of the family medicine unit and are thereafter randomized to one of four intervention groups: 1) standard medical care (control), 2) improved diet (DASH diet), 3) physical activity, or 4) both improved diet and physical activity. Patients are evaluated (pre, mid, and post intervention), monitored, and educated by the interdisciplinary health care team that includes a physician, a kinesiologist, a nutritionist, and a nurse, depending on the intervention group. T-tests and descriptive statistics were used to analyze data. **Results:** To date, 49 patients were recruited, 21 were eligible, and currently 19 are participating in the study (42% female, mean age:  $53 \pm 13$  yrs, mean BMI:  $30.3 \pm 7.0$  kg/m<sup>2</sup>). Characteristics are not different across intervention groups. The most common reason for non-eligibility was normal ABPM (50%). The sample is characterized by overweight/obesity (79%), abdominal obesity (74%), and metabolic syndrome (32%). Mean 24-hour blood pressure measurements are  $134/83 \pm 8/7$  mmHg and 53% of patients are on anti-hypertensive medications. Using the Framingham Risk Score, mean "cardiac" age is  $58 \pm 13$  years, which is significantly older than the patients' actual chronological age ( $+5.3$  yrs,  $p < 0.003$ ). **Conclusion:** This preliminary descriptive study demonstrates that hypertensive and sedentary patients are characterized by overweight/obesity and abdominal obesity. This study will document the efficacy of a primary care lifestyle intervention program on cardiometabolic and hypertension risk factors.

## 580 Resident Poster

**Prevalence, Screening, and Treatment of Depression in Patients With Heart Failure at a Rural Clinic**

Melissa Tenbergen, BMSc, MD, London, ON; Vikram Dalal, BSc, MD, CCFP (EM), London, ON

**Context:** Heart failure (HF) and depression are two large chronic health burdens that family physicians actively manage throughout the course of the illness. Evidence is bound to support poor prognosis of depression in patients with HF. However, screening for depression in patients with HF remains a challenge. Moreover, depression remains a significant risk factor for cardiovascular disease later in life, specifically, heart failure. **Objective:** Objectives of this chart review were to ascertain a) prevalence of depression in patients with HF, b) timing of each diagnosis, c) prevalence of screening for depression in patients with HF, and d) proportion of patients receiving medical treatments for depression concurrently with a dual diagnosis of HF. **Design:** Charts at a rural academic family medical centre in Southwestern Ontario were searched for a diagnosis of HF. **Participants:** Only patients ( $n=48$ ) with an echocardiogram-confirmed diagnosis of HF were included in the study. **Measures:** Patient charts were reviewed for assessing a) concurrent diagnosis of depression, b) recorded timing for each of the two diagnoses, c) whether depression screen had taken place at any time after the diagnosis of HF, and d) a concurrent diagnosis and medical treatment of depression. **Findings:** A total of 48 patients were found to have an echocardiogram-confirmed diagnosis of HF. Thirty-one percent ( $n=15$ ) had a concurrent diagnosis of depression. Ninety-three percent ( $n=14$ ) of patients with dual diagnosis were treated medically for depression. Only thirty percent ( $n=10$ ) of patients with a previous diagnosis of HF had documented screening for depression at any time. In patients with a dual diagnosis, forty-seven percent ( $n=7$ ) had diagnosis of depression that preceded the diagnosis of HF. **Conclusion:** At this clinic, screening for depression is suboptimal in patients with a diagnosis of HF. Addition of a depression screen (such as PHQ-9) to the Ministry of Health and Long-Term Care heart failure flow sheet may prove beneficial for family physicians to prevent associated adverse outcomes. In susceptible populations, depression is a significant risk factor for developing HF.

## 581 Resident Poster

**Improving the Use of Patient Education Materials in Primary Care**

Elvin Tan, MD; Laura Arul, MD; Nora Magyarody, MD; Michael Mason, MD; Carolyn Pasko, MD; Laura Vance, MD

**Context:** Patient education is associated with numerous benefits in primary care—these include increased patient understanding, increased patient satisfaction, and even improved outcomes within certain chronic conditions. Education materials have recently expanded to include a variety of credible and up-to-date resources including books, websites, videos, pamphlets, etc. Yet this plethora of patient education materials available to physicians and patients is often inadequately utilized as a resource for improving patient care. Various factors, including time constraints, unfamiliarity with resources, or perceived lack of utility of resources, contribute to the underutilization of patient education materials. **Population:** Our study assesses the Queen's Family Health Team (QFHT)—a multidisciplinary team of 23 faculty family physicians, 50 first-year family medicine residents, 12 nurses, five nurse practitioners, and four other allied health professionals—serving 14 630 active patients in the Kingston, Ontario and surrounding region. **Objective:** This study aims to delineate the current use of patient education materials within QFHT and identify the possible barriers to increased use of patient education resources. **Design:** Through a comprehensive survey, our study specifically examines the current usage of diabetic education materials within the context of a first-diagnosis diabetic as a quantitative measure of the use of patient education materials. This study's survey of QFHT clinicians probes the attitudes and current clinical practices surrounding patient education. **Results and Conclusion:** Interpretation of our survey results will be aimed at the identification of barriers to patient education material with the goal of improving patient education and care at QFHT and, hopefully, generalizing to primary care teams across Canada.

## 582 Student Poster

**Management of Diabetes on a Palliative Care Unit: A retrospective observational study**

Graham Bergstra, BHSc; Janette Byrne, RN, BScN, CHPCN (c); Iris Gutmanis, MSc, PhD;  
Catherine Faulds, MC, CCFP, FCFP ABPHM; Patricia Whitfield, RN, BScN, CHPCN (c); Sarah Woolmore-Goodwin, BA, MSc;  
Joshua Shadd, MD, CCFP

**Context:** Despite high clinician awareness and patient prevalence of diabetes, research to guide the management of serum glucose in palliative care patients is lacking. Balancing the symptoms of hyper- and hypoglycemia with the discomfort of blood glucose monitoring is a unique challenge in this population. **Objective:** To describe blood sugar testing and treatment among patients with diabetes admitted to a hospital-based palliative care unit (PCU) in London, Ontario. **Design:** Retrospective observational study. **Participants:** Data was collected from all patients admitted to the PCU over a six-month period (January to June 2012). The total number of patients admitted during this period was 91, of which 18 had diabetes. **Outcome measures:** For this retrospective study, data collected included diabetes diagnosis, glucose measurement (laboratory and bedside testing), use of diabetes medications (oral and insulin), and use of medications for diabetes-related conditions (antihypertensives, and lipid-lowering medications). **Results:** Among the 18 patients with diabetes documented on admission, 1 (5.6%) had a laboratory serum glucose test at some point during their admission, 9 (50%) had a bedside glucometer test, 5 (27.8%) received an oral hypoglycemic drug, 7 (38.9%) received insulin. At some point during their admission, 11 (61.1%) of these patients received antihypertensive medications and 3 (16.7%) received lipid-lowering drugs. In a substantial minority of patients with diabetes, administration of insulin (5), oral hypoglycemics (5), antihypertensives (7), and lipid-lowering medications (1) continued into the last fully documented week of life. **Conclusions:** Diabetes is a common problem in the PCU population. Further research is needed to guide decisions regarding blood sugar management at end of life.

### 583 Student Poster

#### Family Medicine Interest Group Program Evaluation: How do FMIG events influence residency decisions?

Janina Mailloux, BSc, MD (cand.); Caleb Van De Kleut, MD (cand.); Rachel Brown, MD (cand.); Sarah Donaldson, MD (cand.);  
Adriana Pietrzak, MD (cand.); Karim Manji, MD (cand.); George Kim, MD, CCFP

Currently, every medical school across Canada has a Family Medicine Interest Group (FMIG). The aim of these groups is to promote postgraduate training in family medicine through numerous events, such as lunchtime talks, clinical skills days, and meet and greets with family physicians. However, there has yet to be a study that examines the effects FMIG events have on medical students' residency decisions, and if so, what that influence is. Our objective is to determine if participation in FMIG events influence the residency decisions of current fourth-year medical students attending the Schulich School of Medicine & Dentistry. A program evaluation was sent to current fourth-year medical students at Schulich using an online administered survey (Survey monkey). Survey respondents were first asked if they attended FMIG events. Those who attended were asked if the events were influential. A series of 5-point Likert-style questions were then used to assess the specific influence of FMIG programs. Finally, respondents were asked about measures for potential improvement of FMIG programs. In total, 16 out of 26 respondents matched to family medicine. 21 students attended a clinical skills day, 21 attended a lunchtime talk, and 14 attended an informal meet and greet. Of these events, lunchtime talks were most influential for residency decisions (6/26). However, most survey respondents indicated that none of the FMIG events influenced their residency decision (12/26). 21/26 respondents felt that FMIG events broadened their understanding of various opportunities available in family medicine. 10/16 future family medicine residents, and 3/10 future non-family medicine residents felt that FMIG events made them more strongly consider family medicine as a career. Overall, it appears that FMIG events are serving to educate all students on the opportunities available in family medicine, and are influencing the residency decisions of a smaller subgroup of students who end up pursuing family medicine.

### 584 Resident Poster

#### Increasing Rates of Cesarean Section Deliveries in a Regional Hospital: Is this trend driven by clinical practices or patient factors?

Victoria Swan, MB Bch, BAO, Swift Current, SK; Brad McIntyre, MD, Swift Current, SK; Shari McKay, BA, BSPE, MA, Saskatoon, SK;  
Kim Sauder, CHIM, Swift Current, SK; Brandace Winquist, MSc, PhD(cand.), Swift Current, SK;  
Kevin Wasko, MA, MD, CCFP, Swift Current, SK

**Context:** At a regional hospital, the rate of Cesarean section (CS) deliveries increased from 24.6% in 2006 to 34.8% in 2012. CS deliveries are associated with increased maternal and neonatal risks, and financial costs compared with vaginal deliveries. **Objectives:** To identify maternal, antenatal, intrapartum, and fetal factors that are predictive for CS delivery at a regional hospital for births in the years 2006 and 2012. To determine whether the increase in CS delivery rates between 2006 and 2012 at a regional hospital is related to changes in clinical practice versus changes in patient risk factors for CS delivery at our centre. To determine if mother-infant health outcomes are associated with mode of delivery for births in the years 2006 and 2012 at a regional hospital. To provide insight into why CS delivery rates in 2012 at a regional hospital exceed provincial and national age-adjusted rates. **Design:** We performed a retrospective chart audit of all deliveries in 2006 and 2012 at a regional hospital. **Participants:** Because we wanted to assess mother-infant pairs, exclusion criteria were death of either the mother or the infant, or trauma to the mother or the infant immediately prior to delivery. Demographic data is pending. **Instrument:** We audited charts with a data abstraction tool for maternal, antenatal, intrapartum, and infant characteristics, and maternal and neonatal outcomes related to CS delivery. **Outcome measures:** The primary outcome was mode of delivery. **Results:** Research in progress. **Conclusion:** Research in progress.

### 585 Student Poster



**An Interdisciplinary Training Approach to Primary Care for Immigrants and Refugees**

*Rabia Bana, MPH, MD (cand.); Emeka Nzekwu, MD (cand.); Louanne Keenan, PhD; Andrea Wensel, MD; Roxanne Felix-Mah; Yvonne Chiu; Dominic Allain, MD*

By 2031, roughly one in every three people in the Canadian labour force could be foreign-born. It is imperative that students in health science programs understand the experience and process of migration, and its many challenges, and impacts on their patients. This study examined the narrative reflections of 40 students within a 10-week interdisciplinary Immigrant and Refugee Health course to determine their perceptions of community-based organizations, immigration processes, and interactions of migrants with health providers. The Immigrant and Refugee Health (IRH) course objectives strived to 1) familiarize students with the topic of immigrant and refugee health, 2) provide exposure to health advocacy training through community service projects, and 3) provide a service to community-based organizations who work with immigrants and refugees. The IRH course uses an interprofessional competency framework that emphasized communication, collaboration, role clarification, and reflection. Students explored a multitude of topics ranging from the unique challenges of clinical interactions with immigrants and refugees, to the history and socio-cultural context of migration and its consequences on health. Course content was delivered by faculty from various health disciplines, representatives from NGOs working with immigrants and refugees, and students experienced in health advocacy. Health professions students from the faculties of medicine, nursing, pharmacy, physiotherapy, occupational therapy, dentistry, speech pathology, and nutrition were included in the study. This introduction to cultural sensitivity presented future healthcare professionals opportunities to interact with individuals and organizations that provide non-discriminatory and competent care to immigrants and refugees. Students were assessed through a 3-part narrative reflection, a report and presentation on the development of a community project, and a Teaching Objective Structured Clinical Exam (TOSCE). Students completed a reflective exercise after three particular sessions: 1) The Migration Experience (2) Community Partner Engagement; and 3) Power, Privilege, and Discrimination. Students came to the realization that migration experiences are intricately connected to their identity and engagement with their health. This is important to recognize when providing health care to a newcomer. The IRH course demonstrated how burgeoning Canadian healthcare professionals can discover how to provide culturally-sensitive care for patients from the ever-growing immigrant and refugee populations.

**586 Student Poster****Utilizing University Students in Primary Care for Programming and Quality Improvement Initiatives**

*Emily Stoll, BSc, London, ON; Jonathan Williams, BMSc, London, ON*

With the increasing need for standardization, utilization of EMRs, quality improvement, and data management in primary care, the London Family Health Team (LFHT) has employed university students for the position of "program planners" to manage these demands. The role of these students extends far beyond data collection, as it has developed into a project management position for chronic disease programs and quality improvement initiatives for all 14,000 patients of the LFHT. The goal of this student program planner is to work under the supervision of both the physicians and allied health professionals to create and manage user-friendly programs. Each program is built upon the students' research of evidence-based clinical guidelines, as they develop process maps, logic models, computer templates, spreadsheets, and resources. The students then help spread and maintain each program through monthly data collection. Students consult one-on-one with each physician regularly to review the status of the programs and data and to ensure the implementation of quality improvement. They also compile and present additional data for critical reflection and educational purposes for the LFHT and community partners. Interventions implemented by the students have included measurement and analysis of LFHT program data through the use of spreadsheets summarizing outcome, process, and balance measures. They have also successfully stratified data to assist in physician prescription and treatment behaviour. Additionally, the students have built multiple EMR templates, surveys, and other resources to assist in treatment and to educate patients. These interventions have led to an increase in maturity of EMR usage by the physicians and allied health professionals; increases in the outcome, process, and balance measures in LFHT chronic disease programs; and greater identification of patients' health status. Overall, the student program planner role has been instrumental in capacity building within the LFHT. The students have served as leaders in EMR, data management, programs, and quality improvement culture. This role is a mutual relationship that benefits both the physicians and allied health, and the students. Additionally, many of these students are medical school bound; therefore, the culture of quality improvement will be reflected in our future physicians.

**587 Resident Poster****Urine Toxicology Screens for Patients on Narcotics: A survey of prescribers in a family health team**

*Ekaterina Dolganova, MD, Kingston, ON; Sarah Blowers, MD, Kingston, ON; Harpreet Brar, MD, Kingston, ON; Andrew Kusek, MD, Kingston, ON; Daniel Warshafsky, MD, Kingston, ON; Jennifer Wilson, MD, Kingston, ON; David MacPherson, MD, FCFP, Kingston, ON*

**Context:** Due to increased risk of substance abuse and diversion associated with prescribing opioids for chronic non-cancer pain (CNCP), the Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain suggests that urine drug screening may be used to assess baseline substance use and monitor aberrant drug-related behaviour. Currently, there is no standard of care for Canadian physicians outlining when and how frequently prescribers should order urine toxicology screens (UTS). At the Queen's Family Health Team (QFHT), the uncertainty is especially apparent given the high number of locums and residents. **Objective:** This study aimed to understand the opinions of QFHT's health care providers on the indications, frequency, barriers, and value of ordering UTS for patients prescribed narcotics for CNCP. **Design:** We developed and circulated an anonymous, online survey to all health care providers at QFHT. **Participants:** Our survey targeted a total of 211 health care providers, including physicians, allied health professionals, and family medicine residents. **Results:** The survey response rate was 34%. Only 52% of prescribers felt that UTS is a useful tool; however, 40% of prescribers did not know how to order a UTS and 90% were not fully confident in their ability to interpret a UTS. Additionally, our survey showed major inconsistencies in frequency of ordering UTS. Specifically, 49% of prescribers ordered a UTS only if they suspected a breach of controlled substance agreement compared with 12% of prescribers who order a UTS at every visit. 72% of respondents expressed a desire for the QFHT to develop a policy around UTS. **Conclusion:** Therefore, to improve the quality of our clinic it is essential to provide staff and residents with resources and education for ordering and interpreting the results of UTS for patients on narcotics for CNCP. Prescribers may also benefit from clinic guidelines that address areas of uncertainty with respect to UTS. Future directions for this study will be to develop an education tool and establish a policy to

eliminate discrepancies in our clinic.

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**588 ANNULÉE / CANCELLED**

**589 Student Poster**  
**Physician Knowledge of Community Resources for Children: A Local Perspective**

*Laura Stymiest, MD (cand.), Saint John, NB; Sarah Gander, MD, FRCPC, Saint John, NB*

**Context:** Canada's children and youth currently face an overwhelming burden of health-related social vulnerabilities. Stakeholders in pediatric care have acknowledged the importance of equipping all physicians with a firm understanding of programs available to treat the social determinants of child and youth health. Few studies in Canada have directly assessed physician knowledge of community resources for pediatric patients or their referral practices to such resources. **Objective:** This two-part study first aims to report on local family physicians' and pediatricians' self-reported knowledge and use of community resources. In part two of the study, we aim to assess the introduction of a resource booklet of over 80 free and subsidized local resources. Here, we report our data from part one, a survey study. **Design/Participants:** Surveys were administered to 126 local family doctors and pediatricians in an Atlantic Canadian city and its surrounding area. Family doctors with no pediatric-aged patients were excluded. **Instrument:** 13-question online and paper surveys were used to quantify physician years in practice, number of children in practice, and knowledge of community resources. **Outcome measures:** Physician self-reported knowledge, frequency of referral, and likelihood to refer was assessed. Physicians were further asked to list as many local community resources in recreation and behaviour/emotional support for children as possible. **Results:** 45 family doctors and 9 pediatricians responded to the survey. Average number of years in practice was 16 and the number of pediatric patients varied from 5% to 100% of their practices. On a Likert scale of 1 to 10 (1 being no knowledge), the median self-reported knowledge of pediatric resources was 5 for family doctors and 6 for pediatricians. On average, physicians in our study reported referring children to community resources 1 to 3 times per week. Qualitative data on resources known may indicate potential gaps in knowledge of specific resources or resources that are free or subsidized. **Conclusions:** Our study provides a glance at local physicians' knowledge and use of community resources for children. Data gathered suggests more work is needed to assess and improve our local physicians' knowledge and referral to community resources for children.

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**590 Resident Poster**  
**Interventions to Increase Advance Care Planning Documentation Rates in the Southeast Toronto Family Health Team**

*James Yi, MD, Toronto, ON; Charlie Joyce, MD, Toronto, ON; Thuy-Nga Pham, MD, MSc, CCFP, Toronto, ON*

**Context:** Advance care planning (ACP) helps ensure that patients' wishes are respected when they are incapable of making decisions. ACP has been shown to improve satisfaction in patients and their caregivers with end of life care. In many cases, this conversation does not occur in family practice or the lack of documentation makes patient wishes unclear for other providers in an acute setting. **Objective:** To improve ACP documentation rates within patients at the Southeast Toronto Family Health Team (SETFHT). **Design:** Before/after quality improvement study involving interventions among both residents and physicians of SETFHT. **Participants:** Rostered patients at SETFHT at or over the age of 50. At baseline, this included 7514 patients, out of which 205 were resident practice patients. **Intervention/Instrument:** The initial intervention was the addition of ACP questions to the periodic health exam stamps for the Practice Solutions EMR used by physicians and residents at SETFHT. The second intervention involved education provided to patients through distribution of ACP pamphlets and to clinicians through online resources and an ACP lecture. **Outcome measures:** Documentation rates of "code status" and "POA" in the PERSONAL heading of the Practice Solutions EMR used at SETFHT in each of the physician practices and the resident practices. **Results/Findings:** Within the resident practice patients, 15 patients had a documented POA (7.3%) and 5 had a documented code status (2.4%). One month after the initial intervention of the EMR stamp, there were 17 patients with a documented POA (8.3%), 4 patients with the POA discussion initiated, 5 patients with a documented code status (2.4%) initiated, and 2 patients with the code status discussion initiated. The second intervention was extended to all physicians at SETFHT. Baseline rates showed 179 patients with a documented POA (2.4%) and 81 patients with a documented code status (1.1%), with final results pending. **Conclusion:** Preliminary data shows that the introduction of the EMR stamp increased ACP documentation and initiation of discussions in the resident practice. Further analysis will elucidate the effects of the patient and physician education intervention on ACP documentation rates at SETFHT.

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**591 Student Poster**  
**The Calgary Guide to Understanding: Our part in medical education**

*Yan Yu, Calgary, AB; Jessica Asgarpour, Calgary, AB; Haotian Wang, Calgary, AB; Saif Zahir, Calgary, AB*

**Context:** Understanding how and why a disease manifests is challenging to teach. Lectures are often in favour of listing typical clinical findings and complications, with less focus on disease processes. In contrast, lectures, textbooks, and papers frequently explain pathophysiology beyond this level of comprehension, leading to confusion. **Objective:** The Calgary Guide to Understanding Disease is a self-study resource providing medical students, clerks, residents, physicians and other interested professionals with simple, concise, and coherent explanations necessary to fundamentally comprehend disease processes. **Design:** Calgary Guide content consists entirely of flowcharts explaining pathophysiology in a comprehensive, step-by-step manner, thereby minimizing confusion. A team of over 50 Calgary medical students authored all content, using language understandable to most students with a basic science background. University of Calgary faculty members review all content to ensure accuracy prior to online publication. Our content is organized simply and logically, enhancing understanding while also facilitating recall. Creative Commons licensing ensures content is free to all those wishing to access it. We believe that finances should never be a barrier to accessing essential educational resources, and we hope to contribute positively to medical understanding in Canada and across the world. **Results:** As evaluated using Google Analytics, since content was initially published online in August 2012, www.thecalgaryguide.com has served over 100 countries and our content has been downloaded over 100,000 times. In nearly two years, we have amassed a growing repository of over 290 peer- and faculty-reviewed slides on topics ranging from neurology to hematology. Concurrent expansion includes producing family medicine-oriented content, pharmacology, radiology, and incorporating authors from beyond the University of Calgary. **Conclusions:** In the past year, there has been a profound rise in viewership, with increasing global outreach and both amount and diversity in content. The Calgary Guide to Understanding Disease is undergoing dramatic expansion, while at

its core the Guide retains its philosophy of making medical education accessible, clear, and comprehensive.

## 592 Timing of Early Newborn Visits in a Family Health Team

*Matthew Clarke, MD; Deborah Curry, MD; Sabra Gibbens, MD; Ali Mohamed, MD; Fred Sfeir, MD*

**Context:** It is important for newborns to be examined by a qualified health care professional within the first week of life to monitor for jaundice, to support breastfeeding, and to assess the mother and family's post-partum adjustments. **Objective:** To determine what percentage of newborn babies are being seen within the first week of life at the Queen's Family Health Team (QFHT) Clinic, and to estimate what percentage of babies are being assessed elsewhere within the first week of life. Study: Chart audit. **Target population:** Babies born between 2010 and 2013 who had at least one appointment with the QFHT before they were 90 days old. **Instrument:** EMR database. **Primary Outcome:** Age at first visit. **Secondary Outcome:** Baby seen by other neonatal care provider: midwife, NICU team, outpatient pediatric team. **Results:** Of the 724 newborns included in the study, 62% (452) were seen at QFHT within the first week. Of the remaining 38% (272) newborns, we estimate that 23% (166) were seen by another qualified health care provider, leaving only 15% (106) unaccounted for. **Conclusion:** Well over 80% of newborns are being seen by qualified health care providers within the first week of life. Efforts to increase this number must identify barriers to care in the remaining 15%. This research team has also initiated process mapping and surveys to identify the barriers to early newborn visits and brainstorm interventions.

19:00 – 22:30



SECTION OF RESEARCHERS DINNER  
SOUPER DE LA SECTION DES CHERCHEURS

LOCATION / ENDROIT : LE MUSÉE DE L'AMÉRIQUE FRANCOPHONE

18:45 Buses depart Québec City Convention Centre /  
Départ des autobus du Centre des congrès de Québec

TICKETS REQUIRED / BILLETS REQUIS



The CFPC Section of Researchers would like to extend its heartfelt thanks to Dr Alan Katz for his leadership and many contributions to family medicine research. Dr Katz is completing his term as Chair of the Section of Researchers.

Thanks so much Alan!



*La Section des chercheurs du CMFC souhaite exprimer ses plus sincères remerciements au D<sup>r</sup> Alan Katz de son leadership et de ses nombreuses contributions à la recherche en médecine familiale. Le D<sup>r</sup> Katz termine son mandat en tant que président de la Section des chercheurs.*

*Un très grand merci, Alan!*

November  
12-14  
*novembre*

Pre-Conference Day  
November 11  
*Journée préconférence  
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