

THE COLLEGE OF
FAMILY PHYSICIANS
OF CANADA



LE COLLÈGE DES
MÉDECINS DE FAMILLE
DU CANADA

CFP MFC

CANADIAN FAMILY PHYSICIAN • LE MÉDECIN DE FAMILLE CANADIEN

Family Medicine Forum Research Proceedings 2014

Compte rendu sur la recherche au Forum en médecine familiale 2014

Quebec City, QC

These abstracts have been peer reviewed | Ces résumés ont fait l'objet d'une révision par des pairs
Can Fam Physician 2015;61(Suppl 1):S1-76

Top 4 papers / Quatre meilleures présentations

Quels gestes cliniques les professionnels considèrent-ils comme de l'aide médicale à mourir?

Claude Arsenault MD CCMF Antoine Boivin MD PhD Isabelle Marcoux PhD Mélanie Toupin MD

Résumé

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.

Development of a clinical decision support tool for the primary prevention of cardiovascular disease

Anton Rabien MD CCFP Morgan Price MD PhD CCFP

Abstract

Context 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 toward risk factors can reduce morbidity and mortality. One barrier to the widespread adoption of such a risk stratification approach 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.

Methods 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 were unavailable, PubMed was searched for randomized controlled trials.

Results We created a Web-based application (www.cardiovascularcalculator.radarhill.net) that provides personalized multivariable risk estimates of developing coronary artery disease and stroke over the next 10 years based on age, sex, smoking status, family history of early coronary artery disease, systolic blood pressure, use of antihypertensive medication, and lipid profile. The application also presents personalized, risk-based recommendations for lifestyle modification and pharmaceutical intervention from 5 Canadian guidelines for the prevention of cardiovascular disease, in addition to modified risk estimates for developing cardiovascular disease over the next 10 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 antiplatelet 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.

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.

Randomized controlled trial of supported self-care for depressive symptoms in association with chronic physical conditions

Mark Yaffe MD CMC MCISc CCFP FCFP Jane McCusker PhD Martin Cole MD FRCPC Maida Sewitch PhD
Tamara Sussman PhD Erin Strumpf PhD Antonio Ciampi PhD Eric Belzile MSc

Abstract

Context Self-care interventions might 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 comorbid physical conditions when supported depression self-care is compared with non-supported self-care.

Design Randomized controlled trial.

Participants Patients in family physician practices, aged 40 years and older, English- or French-speaking, with chronic physical illness or pain of 6 months or greater duration, and with depressive symptoms assessed using the Patient Health Questionnaire (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 containing an antidepressant skills workbook; a depression management DVD; mood-monitoring sheets; a relaxation CD; and information on medication misuse, emotional eating, community resources, and relevant Internet sites, and information for family and friends. The control group utilized tools ad lib, while the intervention group received trained lay coach telephone support once per week for 3 months and then once per month for another 3 months.

Main outcome measures The primary outcome measure 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. One hundred seventy-two (77%) completed the 6-month trial. Intervention participants received a mean of 9.1 coaching telephone calls, with a mean duration of 11.2 minutes. At 3 months the mean PHQ-9 score was significantly lower in the intervention group compared with controls; however, at 6 months there was no significant difference between the scores of the 2 groups. Secondary analyses suggested that, compared with 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 might be owing 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.

Interprofessional learning using persons with developmental disability as simulated patients

Brian Hennen MD CCFP FCFP FRCGP Elizabeth Kay-Raining Bird PhD Paula Hutchinson PhD Anne Godden-Webster MSc
Karen McNeil MD CCFP FCFP Sandra Witherbee Judy Macdonald PhD Sarah Shea MD FRCPS Andrea Rideout MD CCFP FCFP
Dianne Mackenzie MSc Lisa Doucette Bruce Holmes

Abstract

Context Interprofessional 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 2 consecutive years, members of the Faculty of Medicine and the Faculty of Health Professions at Dalhousie University have presented an interprofessional, elective mini-course for first- and second-year students.

Objective 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 interprofessional communication and person-directed care with persons with developmental disabilities.

Methods Thirty-six first-year and 46 second-year students completed 3, 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 the departments of Family Medicine and Pediatrics. Students' evaluation of the first-year course involved 11 statements for rating on a 4-point scale ("strongly disagree" to "strongly agree") and open-ended invitations to suggest improvements and generally comment.

Results An example feedback statement provided by a participant is as follows: "The expectations of students were clear; the level of difficulty of the information was about right; as the result of this IPHE [interprofessional health education] session, I feel more confident in my capacity to collaborate with other professions." The participants' responses informed modifications in the second year of the program. Feedback from the simulated patients and family members indicated a 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.

Conclusion This presentation summarizes the course's development and the experiences surrounding its implementation. Participants considering interprofessional teaching can expect to be able to identify strengths and challenges of interprofessional 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 interprofessional learning, and the administrative and planning challenges in delivering an interprofessional program.

Free-standing oral presentations / Présentations libres (orales)

Caring and communicating in critical cases

Resource for rural physicians

Antonia Johnson MBA Lindsey Campbell MD M. Firdaus M. Mydeen MD CCFP

Abstract

Context Advanced trauma life support (ATLS) protocols are key to the optimal evaluation and management of trauma patients, and having a designated trauma team leader improves protocol compliance. However, practitioners' knowledge of trauma protocols declines significantly after ATLS course completion, which poses a constant challenge, especially to physicians who do not face such scenarios frequently. This challenge is magnified in rural hospitals that have fewer resources for critical cases and must also communicate with a distant tertiary- or definitive-care centre. We designed a 1-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 uses a checklist approach and prompts the team to assign responsibilities and use pictures to document findings. 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 communicates succinctly with one another 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 Fifty-one administrators, paramedics, nurses, students, residents, and physicians with experience in rural medicine.

Main outcome measures Ratings on a scale ranging from "not at all likely" to "very likely" to improve each of communication, approach, and organization, and the documentation of critical cases in rural settings.

Findings Most participants thought the form would be useful for improving communication, organization, and documentation. Regardless of profession, a large majority of participants thought the form would be useful or very useful for improving all of the outcome measures. Our results also showed that nurses were more ambivalent about the form's utility in these areas than were other professionals.

Conclusion This form is very likely to be useful in the assessment and management of critical cases in rural emergency departments. We intend to further our research by obtaining feedback on the form's content and layout as it is used in rural Alberta emergency departments.

Implementation of the expanded chronic care model for the management of diabetes in a community clinic

Juan Soto MD CCFP Cecile Pasino PhD

Abstract

Objective To compare the management of type 2 diabetes using the elements of the expanded chronic care model (chronic disease care [CDC] patients) with conventional treatment (non-CDC patients) by Parkland Medical Clinic in Spruce Grove, Alta.

Methods A descriptive study was employed with 100 patients randomly chosen from 689 patients with known diabetes. A chart review was done to determine each patient's profile, which included age, sex, date of last visit, blood pressure, body mass index, and hemoglobin A_{1c} and low-density lipoprotein levels. Data were processed to measure significant differences comparing the management of type 2 diabetes between CDC and non-CDC patients. Frequency distribution, percentages, and weighted means were calculated to answer specifically the significant differences in the type of care provided.

Results The CDC patients, when compared with non-CDC patients, showed a significant difference in terms of target values for low-density lipoprotein levels (60% vs 44%) and blood pressure (70% vs 40%). Opposite results for hemoglobin A_{1c} 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 for 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.

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

Stéphane Groulx MD FCMF Jean Beaudry MA Psy Yves Filion DTP MBA Julie Dufort MD MSc FRCPC

Résumé

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 où 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-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 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 suivant 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.

Screening for red flags in patients with major depressive disorder during follow-up visits in a group family practice

Setorme Tsikata MBChB MSc CCFP Justice Asomaning PhD Zahra Fatehi-Hassanabad MD PhD

Abstract

Context Major depressive disorder (MDD) is a serious condition affecting 8% of Canadians. Suicidal thoughts and the risk of completing suicide are highest among patients whose symptoms are not well controlled. Simple screening questions about mood and suicidal and homicidal thoughts, and observation of affect can help make a quick determination of red flags for adverse events.

Objective To determine the proportion of patients with MDD who are screened for the risk of suicide and homicide, and whose follow-up visits include an inquiry about mood and observation of affect.

Design Cross-sectional review of the electronic medical records of patients in a group family practice in Alberta.

Participants All patients with a documented ICD-9 code diagnosis of MDD who followed up for antidepressant renewal between January 1 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, respectively, suicidal thoughts, homicidal thoughts, and mood. Clinic, sex, and age group were not significantly ($P > .05$) associated with screening for homicidal thoughts and mood in patients with MDD. Similarly, clinic and sex were not significantly ($P > .05$) associated with screening for suicidal thoughts. Age group, on the other hand, was significantly ($P < .05$) associated with screening for suicidal thoughts in patients with MDD, with age groups 18 to 29, 30 to 39, 40 to 49, 50 to 59, and older than age 50 being 5, 7, 15, 23, and 20 times, respectively, less likely to be screened for suicidal thoughts compared with the group younger than 18 years.

Conclusion An overwhelming majority of patients are not screened for the risk of adverse events using the measures studied such as inquiry about mood, suicidal thoughts, and homicidal thoughts, and observation of affect. Patients younger than 18 years of age are significantly more likely to be screened for suicidal thoughts. Patients with debilitating complications of depression such as suicidal and homicidal thoughts might be missed if this practice pattern continues.

Quality of work life of rural emergency department nurses and physicians

Pilot study

Isabelle Bragard PhD Richard Fleet MD PhD CCFP(EM) Gilles Dupuis PhD Patrick Archambault MD MSc FRCPC CSPQ
France Légaré MD PhD CCFP Jean-Marc Chauny MD CSPQ MSc Jean-Frédéric Lévesque MD PhD Mathieu Ouimet PhD

Abstract

Context The challenges of providing emergency care in rural areas might contribute to professional stress and negatively effect 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 2 rural EDs in order to plan a larger study in Quebec.

Methods We selected a convenient sample of 2 rural EDs participating in the planned larger trial. The first ED (29 nurses and physicians) receives about 10000 patients per year and the second (35 nurses and physicians) about 30000 patients per year. They were invited by e-mail to complete 2 online surveys: a 39-item questionnaire measuring RRF and the Quality of Work Life Systemic Inventory (34 items). For the Quality of Work Life Systemic Inventory, 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 (SD) age was 42 (11.6) years. Most workers had more than 6 years of work experience (85%). Two physicians were trained family doctors and 1 had completed certification in emergency medicine. Regarding RRF, 45% of workers were “not at all satisfied” to “a little satisfied” with their access to training. However, almost all workers were “moderately satisfied” to “very satisfied” with technical resources (90%), prehospital and interhospital transfer 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 effect 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 the response rate in view of a larger trial.

The neighbourhood effect of immigration on an urban population with diabetes

Alain Vanasse MD PhD Maria Gabriela Orzanco PhD Patrick Bergeron PhD Alan Cohen PhD Théophile Niyonsenga PhD
Denis Leroux PhD Lyne Cloutier PhD Shabnam Asghari MD PhD Josiane Courteau PhD

Abstract

Context Studies have shown that neighbourhoods can influence the health and behaviour of populations. The health of immigrants is an important area of research in Canada not only because the immigrants represented 21% of its population in 2011, but because immigrants have different health status and behaviour than native-born Canadians do.

Objective To explore if, in a cohort of patients with diabetes living in the Montreal metropolitan area, patients' outcomes and accessibility to care vary with the immigration and socioeconomic attributes of their neighbourhoods.

Design Population-based retrospective cohort study.

Participants The study cohort includes 111 556 patients aged 30 years and older, living in Montreal, diagnosed with diabetes between 2004 and 2007, and without previous cardiovascular disease (CVD).

Main outcome measures Variables were all-cause hospitalization and death; CVD events; mental health problems; frequent use of emergency care (≥ 4 claims), family medicine care (≥ 22 claims), specialists care (≥ 4 claims); and use of antidiabetic drugs.

Methods Using principal components analysis applied to census variables for 6006 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 6453 deaths, 35928 hospitalizations, and 6064 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 showed fewer mental health problems. Finally, materially deprived neighbourhoods with high immigration had the highest utilization rate of antidiabetic drugs.

Conclusion For a metropolitan population with diabetes, outcomes and health care inequalities are related to immigration and socioeconomic attributes of their neighbourhoods.

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

Stéphane Groulx MD FCMF Jean Beaudry MA Psy Yves Filion DfP MBA Julie Dufort MD MSc FRCPC

Résumé

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 où 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.

The Rasouli decision

Is the withdrawal of life-sustaining measures considered treatment?

Yatri Patel MD Robert Solomon LL.M

Abstract

Context In the case of Hassan Rasouli, the Supreme Court of Canada determined that the withdrawal of life-sustaining therapy was 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 health care disputes in Ontario.

Objective We sought to examine the legal principles of consent for incapacitated patients and the organization and mandate of the CCB and to 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.

Participants All patients, SDMs, and physicians involved in cases of unilateral authority in the withdrawal of life-sustaining treatment.

Methods The following databases were examined: LexisNexis Quicklaw, Westlaw Canada, and 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 comprises a lawyer, a community member, and a psychiatrist to serve as a medical expert. Between 2003 and 2012, 30 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 such disputes that addresses 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.

Is the recommended use requisition acceptable for bone mineral density testing in clinical practice?

Rokeni (Sumi) Anantharajah MD Susana Huang MD Susan Jaglal PhD Sarah Munce PhD
Sonya Allin PhD Tarik Bereket MA Debra A. Butt MD MSc CCFP FCFP

Abstract

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 to 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 A total of 18 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 1 report generated using the RUR were interviewed after using the RUR (N=15).

Main outcome measures Themes were identified from the participant responses and were ranked by frequency of mention.

Findings Most 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, most 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 most primary care practitioners in the study. The RUR has the potential to improve and standardize the communication of known risk factors for osteoporosis between family physicians and specialists in osteoporosis management.

Portrait of rural emergency departments and use of the emergency management guide in Quebec

Richard Fleet MD PhD CCFP(EM) Patrick Archambault MD MSc FRCPC CSPQ France Légaré MD PhD CCFP
Jean-Marc Chauny MD CSPQ MSc Jean-Frédéric Lévesque MD PhD Mathieu Ouimet PhD Gilles Dupuis PhD
Jeannie Haggerty PhD Julien Poitras MD CSPQ Alain Tanguay MD Geneviève Simard-Racine MD Josée Gauthier MSc

Abstract

Context Rural emergency departments (EDs) are important safety nets for the 20% of Canadians who reside in rural communities. Surprisingly, information on these EDs is scarce. Pilot data suggest important interprovincial differences in access to services in rural EDs. Quebec appears to provide more comprehensive access, which might be attributable to the existence of policy and guidelines (Quebec ED management guide [QEDMG]). This hypothesis requires further study.

Methods We selected EDs offering medical coverage 24 hours a day, 7 days a week; that had hospitalization beds; and that were located in “rural or small towns.” We collected data using telephone, paper, and online surveys with rural ED and hospital staff. Data were also collected from Quebec Ministry of Health databases. We computed descriptive statistics.

Results Of Quebec’s 26 rural EDs, 23 consented to participate (88.5%). These EDs are located in communities with a median population of 5940 (interquartile range 2401 to 7914). The median annual ED census was 19594 (interquartile range 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 levels 1 to 5, respectively. Most commonly, ED physicians were recent graduates with less than 5 years of experience (31%). Seven percent had residency training or certification in emergency medicine. Overall, 40% of shifts were covered by “full-time” ED physicians and 14% were covered by locums. Access 24 hours a day, 7 days a week, to the following services was as follows: x-ray scans and laboratory services, 100%; computed tomography scanner, 74%; intensive care unit, 78%; psychiatrist, 48%; obstetrician-gynecologist, 35%; surgeon, 78%; pediatrician, 13%; orthopedist, 17%; and anesthetist, 65%. Forty-two percent of EDs are more than 300 km away from a level 1 trauma centre and 58% are more than 300 km away from a level 2 trauma centre; only 33% of these distant EDs had air transport access. Roughly 290 (SD=88) interfacility transfers were required per year per ED. Overall, 40% 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. The QEDMG might have contributed to this model of service attribution favouring more local services versus interfacility transport.

Where are abortion services provided in Canada?

Results of a national survey

Wendy V. Norman MD MHSc Edith Guilbert MD MSc Christopher Okpaleke MBBS
E. Steven Lichtenberg MD MPH Maureen Paul MD MPH Katharine O'Connell White MD MPH

Abstract

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.

Main outcome measures We collected data on location and volume of abortions provided, 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% were in Quebec, a province where 23% of Canadians reside. Response rate was 83% (78 out of 94), including 89% (41 out of 46) from Quebec. At least 1 facility in every province and territory responded, except Prince Edward Island, where we were unable to identify any abortion provision. Responding facilities by region represented 4 out of 4 from the Atlantic provinces, 9 out of 16 from Ontario, 6 out of 8 from the Prairies, 15 out of 16 from British Columbia, and 3 out of 4 from the Territories. Among responding facilities, 47 were ambulatory clinics or doctors' offices, and 34 provided abortion within a hospital; 7 reported use of both settings. Respondents reported provision of 75 650 abortions in 2012, including 4% as medical abortions. Most reporting facilities (51.4%), including 65% of those in Quebec, provided fewer than 500 abortions per year, with only 20.3% of facilities (and 8% of Quebec respondents) providing more than 2000 abortions per 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 with population distribution and service requirements.

Types d'avortements pratiqués au Québec et dans le reste du Canada

Une étude nationale

Edith Guilbert MD MSc Heidi E. Jones PhD MPH Christopher Okpaleke MB BSc E. Steven Lichtenberg MD MPH
Maureen Paul MD MPH Katharine O'Connell White MD MPH Wendy V. Norman MD MHScc CCFP FCFP

Résumé

Contexte Des données américaines et internationales indiquent qu'une proportion significative des avortements est faite 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 1^{er} 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 2^e trimestre constituent 5,9 % (4468/75 650) de tous les avortements au Canada : 6,4 % de tous les avortements du Québec (1541/24 106) et 5,7 % de ceux du reste du Canada. Les avortements médicamenteux (AM) sont principalement pratiqués ailleurs au Canada qu'au Québec (5,1 % contre 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 2^e 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 1^{er} 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.

Screening tool kit for early identification of mental health issues in seniors

Bonnie Dobbs PhD Diane McNeil PhD Anita Saini MC

Abstract

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 for 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 tool kit 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 were 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 health care professionals provided input on the feasibility of use of the selected tools in the primary care setting during consensus group meetings.

Main outcome measures For the systematic reviews, only studies that assessed the predictive properties, used a criterion 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 In total, 6 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 tool kit.

Conclusion Mental illness remains largely underdiagnosed in those aged 65 years and older. The availability of a standardized, user-friendly tool kit 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.

Prognostic value of the Residential Hospice Admission Priority Tool compared with the Palliative Prognostic Index

Leslie Morrison MD Kelly Hubbard RN CHPCN(C) Linda Johnston RN Erin Ueffing MHSc
Brian Morris MD CCFP Anwar Parbtani PhD MD CCFP

Abstract

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, Hospice Simcoe in Barrie, Ont, utilizes a tool (Residential Hospice Admission Priority Tool [RHAPT]) that includes the 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.

Objective 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. Data were non-normally distributed and hence assessed using the Spearman rank correlation.

Results A total of 272 charts (for 137 female and 135 male patients) of palliative cancer patients were assessed. Mean (SD) age was 72 (14). Mean (SD) TTD from triage was 32 (42) days (median 17 days). Mean (SD) PPI score was 3 (1). Mean (SD) RHAPT score was 10 (3). The RHAPT showed a good correlation with PPI ($r=0.47$; $P<.001$). Both tools failed to show significant correlation with individual patients' TTD; however, the range of scores for both tools showed strong linear relationships with the group's median TTD (PPI $r=0.85$; RHAPT $r=0.90$; $P<.001$). The RHAPT showed much stronger correlation with the burden of illness (vs ESAS-phys $r=0.73$; vs ESAS-psych $r=0.80$; $P<.001$) and the CE scores ($r=0.44$; $P<.001$), compared with PPI (vs ESAS-phys $r=0.31$, $P<.01$; and vs ESAS-psych $r=0.32$, $P<.01$). The PPI did not correlate with the CE scores.

Conclusion The RHAPT and PPI triage scores were poor predictors of individual patients' life expectancy but RHAPT revealed a slightly better predictive value ($P<.06$). Compared with PPI, RHAPT showed much more robust correlation with the burden of illness parameters.

Rural versus urban in-hospital mortality following stroke in Canada

Richard Fleet MD PhD CCFP(EM) Sylvain Bussi eres PhD Fatoumata-Korika Tounkara MSc
Gilles Dupuis PhD Patrick Archambault MD MSc FRCPC CSPQ Julien Poitras MD CSPQ

Abstract

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 computed tomography scan within 45 minutes of arrival in the emergency department (ED). 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.

Objective To assess if mortality following stroke is 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 emergency physician coverage with hospitalization beds 24 hours a day, 7 days a week. Urban tertiary centres 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 access to a computed tomography scanner 24 hours a day, 7 days a week, and 19% had in-hospital intensive care units, in contrast to 100% of urban centres. Data from CIHI were available for 44% of those hospitals we considered to be rural and for 96% of those we considered urban. For every province and every year, the 30-day adjusted stroke mortality was significantly higher in rural hospitals than in urban hospitals. Nationally, the rural versus urban hospital mean 30-day stroke mortality rates (per 100) were, for 2007, 21.01 (95% CI 20.66 to 21.36) and 16.92 (95% CI 16.28 to 17.56); for 2008, 17.78 (95% CI 17.01 to 18.54) and 16.18 (95% CI 15.05 to 17.30); for 2009, 19.42 (95% CI 18.74 to 20.09) and 16.03 (95% CI 14.98 to 17.07); for 2010, 18.01 (95% CI 16.68 to 19.34) and 14.95 (95% CI 13.96 to 15.95); and for 2011, 20.17 (95% CI 19.28 to 21.06) and 14.96 (95% CI 13.83 to 16.09). Despite unstable values in certain rural centres, the stability of combined yearly rural data and non-overlapping CIs suggest strong trends in findings.

Conclusion Overall, the 30-day adjusted stroke mortality was, with few exceptions, higher in rural than in urban tertiary hospitals in Canada. Results must be interpreted in the context of limited CIHI website-reported data for rural hospitals and the absence of data from Quebec.

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

Abstract

Context A 2007 analysis revealed that the equivalent of 2 graduating classes of average-sized Canadian medical schools were emigrating to the United States (US). There have been great changes in the medical landscapes 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 50 years and the factors that might influence this.

Design A cross-sectional analysis of the American Medical Association Masterfile to identify and locate any graduates of Canadian medical schools currently providing direct patient care in the US.

Findings Graduates from Canadian medical schools emigrated to the US in record numbers beginning in 1990 and ending abruptly in 1995. Review of Canadian Resident Matching Service data found an associated decline in Canadian applicants to the National Resident Matching Program over this time period. Further, of those Canadian graduates who completed postgraduate 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 practising in the US has declined by 11%, and they are not currently being replaced by other graduates.

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 practise) 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.

Qui pratique les avortements chirurgicaux au Québec et dans le reste du Canada?

Une étude nationale

Edith Guilbert MD MSc Heidi E. Jones PhD MPH Christopher Okpaleke MBBS E. Steven Lichtenberg MD MPH
Maureen Paul MD MPH Katharine O'Connell White MD MPH Wendy Norman MD MHS CCFP FCFP

Résumé

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 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 incombe aux infirmières autorisées (32,4 %), conseillères agréées/travailleuses sociales (25,5 %) ou 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 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 (1^{er} trimestre : 77,8 %; 2^e 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.

Discussing end-of-life issues in a new model of long-term care

Qualitative study

Raphaëlle Thériault MD CCFP Emily Gard Marshall PhD Fred Burge MD FCFP MSc Barry Clarke MD CCFP COE

Abstract

Context In Halifax, NS, a new model of long-term care (LTC) has been implemented called *Care by Design*, which includes an assigned family physician per LTC floor or unit, with on-call physician coverage 24 hours a day, 7 days a week; 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, ECPs, LTC facility administrators, care aides, 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 semistructured interview transcripts.

Participants A total of 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 care 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 accessibility 24 hours a day, 7 days a week, continuity, and expertise of Care by Design physicians and ECPs) 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 concerns. Areas for improvement were also explored.

Discussion Patients reaching the 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 various ways. Through this study, we found that there are multiple factors that can improve this experience for everyone involved. We hope that a standardized implementation of these elements could improve end-of-life care in multiple LTC facilities.

Conclusion This study provides valuable insights into end-of-life care from multiple stakeholder perspectives. Coordinated interprofessional care teams (ie, family physicians and ECPs) that are accessible to LTC and offer continuity in care have improved end-of-life experiences. Implications for policy include finding support for standardized palliative care teams and rooms, more educational sessions for families regarding end-of-life issues, and continuing improvements in interprofessional communication and collaboration.

Addressing medication discrepancies at the hospital-to-community transition

Community-based medication reconciliation system

Allan L. Bailey MD CCFP Kris McKeown PhD Grace Moe MSc PCMH-CCE

Abstract

Context Developing strategies to address medication errors occurring after hospital discharge might reduce patient harm.

Objective The objective of the WestView Physician Collaborative's community-based medication reconciliation system 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, Alta, 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 1 medication at hospital discharge. Patients who were cognitively impaired, those younger than 18 years of age, residents of continuing care facilities, nonresidents of the Edmonton metropolitan area, those with language barriers, and First Nations persons (provincial home care data are 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' homes.

Main 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 1 medication error. A lack of patient knowledge regarding how to take medication 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 patient's family physician. Finally, the medications more frequently prescribed at hospital discharge were significantly correlated with the errors encountered during the home visit.

Conclusion The community-based medication reconciliation system successfully identified patient- and system-level occurrences associated with medication errors. Interventions were subsequently initiated to address these errors. Finally, medication categories more likely to be associated with medication errors were successfully identified.

Improving primary care provider knowledge, attitudes, and behaviour around chronic hepatitis B

Results of a nationwide practice audit study

Hemant Shah MD MScCH HPTE Jean Palmart

Abstract

Context Knowledge levels among primary care providers (PCPs) about chronic hepatitis B (CHB) are low. Practice audits can improve outcomes in other diseases but have not been studied in viral hepatitis.

Objective We conducted an evaluation of the effect of a practice audit and individualized feedback on PCPs' knowledge, behaviour, and attitudes regarding CHB.

Design A chart review characterizing CHB patients according to guidelines was performed. A qualitative interview and quantitative survey were administered at the time of site initiation (wave 1), immediately after delivery of audit feedback (wave 2), and 6 months after 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 In all, 43675 patient charts were audited. The analysis of adherence to Canadian CHB guidelines by these PCPs demonstrates adherence is poor, as has 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. The PCPs declared that patient care was improved and therapy was initiated sooner if needed, owing to more appropriate referral. Perceived knowledge levels remained low regarding cirrhosis recognition and management but increased in all CHB-specific domains. A 15-point knowledge quiz score did not change between waves 1 and 3 (range 8.9 to 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 for improving the quality of primary care for CHB, and possibly patient outcomes.

Effect of intracervical lidocaine before intrauterine system insertion in primary care

Ainsley Moore MD MSc CCFP Cara Sterling MD Kayla Vale MD

Abstract

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 To examine the effects of intracervical anesthetic (lidocaine) prior to IUS placement on patients' perception of pain and physicians' perception of ease of insertion within a primary care setting.

Design Prospective observational study design.

Participants All women seeking IUS insertion at Stonechurch Family Health Centre in Hamilton, Ont, 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 3 points during the insertion: before the procedure, at tenaculum placement, and during IUS insertion. Physicians reported ease of insertion using a numeric rating scale (0=easy, 100=extremely difficult).

Main outcome measures Differences in pain rating scores with intracervical lidocaine use compared with no lidocaine, and differences in ease of insertion rating scores with intracervical lidocaine use compared with no lidocaine.

Results Patients receiving intracervical lidocaine reported significant reduction in pain at the time of tenaculum placement ($P=.0024$) but not during IUS insertion ($P=.77402$). Provider-reported ease of insertion was not significantly reduced with lidocaine use ($P=.5404$).

Conclusion The results of this study indicate that providing intracervical anesthetic significantly reduces patients' perceived pain during tenaculum placement but does not reduce it during IUS insertion, nor does it influence providers' ease of insertion. While the additional step of providing intracervical anesthetic can prolong the procedure, it might offer significant benefit to patient comfort during the procedure and thus should be considered during IUS insertion in the primary care setting.

What medications are used for medical aid in dying?

Scoping review

Antoine Boivin MD PhD Yi-Sheng Chao PhD Geneviève Garnon Isabelle Marcoux PhD

Abstract

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 exists 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 the 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 were opioids and sedatives at levels 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 these 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. Most drugs used by physicians have low potential to actually cause patients' death and can have other indications for symptom management.

Drug samples utilization in family medicine teaching units of the Quebec-1 PBRN

Marie-Thérèse Lussier MD CCFP FCFP Michel Labreque MD PhD CCFP FCFP Andrea Lessard MD MSc CCFP
Pierre Pluye MD PhD Roland Grad MD MSc CCFP Caroline Rhéaume MD PhD CCFP Fatoumata Binta Diallo PhD
Tarek Bouhali PhD Justin Gagnon MA Edith Omon MD

Abstract

Context Drug samples can present some benefits for patients but they can also pose health risks to them, influence health care providers' prescribing behaviour, and contribute to an increase in health care 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 Quebec.

Design Descriptive cross-sectional study.

Participants Health care providers either managing or handing out drug samples in 42 FMTUs.

Instrument 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 out of 33) report having a written local or regional policy on drug samples, yet only one-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 3 most frequently reported reasons for giving a drug sample are 1) monetary (84.5%), 2) to check tolerability (68.2%), and 3) to provide rapid pain relief (50.9%). Documenting use of a sample in the patient's chart and referring patients to the community pharmacist are infrequent practices (36% of respondents).

Discussion This Quebec-1 network study is the first involving the 4 university practice-based research networks of the province. Despite existing written policies, drug sample management and use appear to be suboptimal in FMTUs in Quebec. Lack of continuity in pharmaceutical care for patients is of concern. The potential influence on the prescribing behaviour of all family medicine graduates in Quebec appears substantial.

Conclusion These results will inform a provincewide 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.

Contributors to Canadian primary care guidelines

Profession and conflict of interest

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

Abstract

Context Guidelines have been criticized for heavy reliance on expert opinion and for little grounding in the complexity of primary care but no research has examined these perceptions.

Objective To determine the profession of guideline contributors, the variables that influence participation of contributors, and the presence of conflict of interest among contributors.

Design Qualitative descriptive analysis of Canadian primary care guidelines (and their contributors) identified from the Canadian Medical Association website.

Methods Two independent data extractors reviewed each guideline and searched for contributors' professions using a predefined process. Three family doctors independently assessed guidelines for relevance to family physician practice.

Main outcome measures Profession of guideline participants (authors or committee members), conflicts of interest (information or statement in the clinical practice guideline), funding of guideline, and location of authors.

Results The original list included 296 guidelines; of these 65 were excluded as duplicates and 35 were excluded for little relevance to family medicine. Many of the remaining 196 were subsections of larger guidelines, leaving 119 unique guidelines. Conflict-of-interest information 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%) other specialists, 141 (6%) nurses, 75 (3%) pharmacists, 269 (11%) other clinicians, 203 (8%) non-clinicians, and 41 (2%) of unknown profession. National guidelines engaged 14% family physicians and 58% other specialists, while provincial guidelines used 31% family physicians and 37% other specialists. Industry-funded guidelines used 8% family physicians and 69% other specialists, while non-industry-funded guidelines used 20% family physicians and 50% other specialists. When conflict of interest was reported it was most common in non-family physician specialists (49%), followed by pharmacists (30%), and family physicians (28%), with the remaining professional groups accounting for 10% or less of conflicts.

Conclusion Among contributors to Canadian primary care guidelines, specialists outnumber all other health care providers combined and are more than 3 times more common as contributors than family physicians. National (vs provincial) guidelines and those with industry funding have more specialist and fewer family doctor contributors. Conflict-of-interest information is provided in the minority of guidelines, and non-family physician specialists are more likely to report a conflict of interest than any other profession.

Perspectives on spirometry and knowledge of spirometric diagnostic criteria among primary care physicians

Anthony D'Urzo MD MSc CCFP FCFP Prateek Sehgal

Abstract

Context Spirometry use in the management of patients with asthma and chronic obstructive pulmonary disease (COPD) has been indicated by clinical care guidelines. However, it remains relatively underutilized by FPs.

Objective To gather information on 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 including 4 SDC questions, 2) didactic session on spirometry interpretation and SDC, and 3) the same 4 questions on SDC repeated, to assess the effect of the training session. Statistical analyses were performed to evaluate FP perspectives on spirometry 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 might provide important insight for promoting both optimal management strategies and directions for future research in asthma and COPD diagnosis.

Results Among the workshop participants, 61% were "not very" or "not at all" comfortable with spirometry test administration. Only 9% of FPs were "very" or "extremely confident" in spirometry test interpretation. These variables were not strongly correlated with physician knowledge of SDC ($P=.363$). While most physicians indicated that they found spirometry useful in clinical practice, 75% reported that they did not have same-day access to spirometry testing. Before component 2, more respondents correctly answered question 7, related to asthma diagnostic criteria, than question 8, related to COPD diagnostic criteria (69% vs 51%; $\chi^2=4.78$, $P=.029$). Physician knowledge of SDC improved significantly following the training session according to 2 metrics: 1) number of physicians who answered at least 3 of the 4 questions correctly ($P=.022$), and 2) mean number of correct answers ($P=.008$).

Conclusion It appears that FPs are uncomfortable performing spirometry tests, lack confidence in spirometry interpretation, and demonstrate 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.

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

Marie-Pierre Gagnon PhD Jean-Paul Fortin MD CSPQ MPH MBA Réjean Roy MSc Liette D'Amours Marie Desmartis MA

Résumé

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 relativement 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'amélioreraient 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.

Effect of the 2012 Ontario cervical screening guidelines on sexually transmitted infection screening

Tali Bogler MD Allison Farber MD Sheila Wijayasinghe MD CCFP Richard Glazier MD MPH CCFP Charlie Guiang MD CCFP

Abstract

Context In May 2012, Cancer Care Ontario released new cervical cancer screening guidelines, which recommended screening sexually active women starting at age 21 and then 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 screening for sexually transmitted infection (STI).

Objective To investigate the effect of the updated cervical cancer screening guidelines on rates of STI screening in primary care.

Design Retrospective chart review.

Participants Females aged 19 to 25 who had at least 1 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, those who were pregnant, or those who required yearly or individualized screening intervals (eg, HIV-positive, immunocompromised, or with abnormal Pap test results). A random sample of 200 women were included in the study.

Main outcome measures Pap tests and STI screens were recorded from the electronic medical record for those patients seen during the 12-month periods 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. The primary outcome measures were chlamydia 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 of 100 women had Pap smears and 40 of 100 underwent STI screening. In the second time period, 17 out of 100 women had Pap smears and 20 out of 100 women received STI screening. The odds of undergoing STI screening in the second time period compared with the first time period were 0.5 (95% CI 0.27 to 0.92, $P = .003$).

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 toward screening using urine-based testing.

Effect of a 3-hour workshop on self-perceived abilities in and enjoyment of dementia care

Linda Lee MD MCISc(FM) CCFP FCFP Loretta Hillier MA Wayne Weston MD CCFP FCFP

Abstract

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 effect 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 A total of 163 clinicians (80 physicians, 11 nurse practitioners) participated in 8 dementia workshops; 91 follow-up surveys were completed.

Intervention A 3-hour dementia care workshop focusing on the use of a structured clinical reasoning approach to assessment and management and including topics of delirium; depression; differentiation between normal aging, mild cognitive impairment, and dementia; clinical differentiation of types of dementia; and drug and nondrug management.

Main outcome measures Five-point rating scales were used to assess the changes in knowledge of assessment and management of cognitive impairment, the level of enjoyment derived from working with patients with dementia ("less now" to "more now"), and the provision of high-quality care ("much improved" to "much worsened").

Results Compared with before this workshop, most 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 had improved (68% "improved"; 19% "much improved"). Similarly, compared with before 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 high-quality dementia care, as well as in increased enjoyment in working with patients with dementia.

Effect of patients' online access to laboratory results

Primary care utilization and patient experience

Chad A. Leaver MSc Simon Hagens MBA

Abstract

Context In Canada, British Columbia is at the forefront of consumer digital health technologies such as providing patients with online access to their laboratory test results; other initiatives across Canada are gaining momentum. No current evidence exists in the Canadian context on the effect of patient access to laboratory test results.

Objective To assess how patient access to laboratory test results affects utilization of primary care services and patient experience.

Design A mixed methodology study including telephone interviews and an online survey.

Setting British Columbia.

Participants Telephone interviews were conducted with a small convenience sample of 20 physicians and an online survey was completed by patients who had had laboratory tests conducted in the past 12 months. The cohort of patients who viewed their test results online was recruited through a provider of online test results, and the comparison cohort (patients who did not view results online) were assembled through a general population research panel.

Main outcome measures The survey instrument included measures for health service utilization before and after learning test results, comprehension, anxiety, empowerment, and overall satisfaction. Data were analyzed using descriptive statistics and logistic regression, and thematic analysis was used for the qualitative data.

Results A total of 2047 surveys were completed by BC residents who viewed laboratory results online in the past year, and 1245 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 laboratory test-related anxiety were low for both groups, but service users who had frequent tests reported significantly lower posttest 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 laboratory 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 the regular place of care, and supports patient self-management. Understanding the effects for patients and health system utilization might help shape emerging consumer health solutions.

Case finding and managing chronic obstructive pulmonary disease

Cathy Faulds MD CCFP FCFP ABPHM Emily Stoll Adriana Pietrzak

Abstract

Context 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.

Objective The aim of the Faulds Medicine Professional Corporation (FMPC) is to improve outcomes for patients with COPD, while ensuring care is patient-centred.

Methods To achieve its objectives, the 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. The FMPC began with case finding—using the Canadian Lung Health Test and spirometry—in all patients aged older than 40 years and with a smoking history, to achieve a roster of 62 patients. Customized electronic medical record templates, alerts, and flow sheets were used in patients' charts, while a spreadsheet displayed all outcome, process, and balance measures for each patient. The data were 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, scores on the Medical Research Council breathlessness scale, and number and frequency of exacerbations. We also tracked process measures and balance measures—such as referrals, emergency department visits, and hospital admissions—to examine the effects the program had on system resources.

Results Notable results included a 38% increase in roster size owing 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 one-third of patients had a decreased Medical Research Council grade.

Conclusion This program has been successful in improving patient outcomes and has resulted in system cost savings owing to low numbers of COPD-related emergency department visits and hospital admissions and reduced hospital-based pulmonary testing function referrals. The key lesson from this program was the value of the utilization of a community-based team approach and evidence-based guidelines.

McGill Master of Science in Family Medicine program

Who are our students and where do they end up?

Jamie DeMore MA Gillian Bartlett PhD Alexandra Dimmer Alexandra Fletcher Roland Grad MDCM CCFP MSc
Peter Nugus PhD Pierre Pluye MD PhD Charo Rodríguez MD PhD Jon Salsberg MA Pierre-Paul Tellier MDCM CCFP
Isabelle Vedel MD PhD Mark Ware MBBS CCFP FCFP MSc Mark Yaffe MDCM CCFP MCISc

Abstract

Context There has been a strong demand to increase research capacity in family medicine; however, concerns exist regarding the rigour 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 master's students, 14 of whom graduated in the last 5 years (graduation rate of 93.3%).

Main outcome 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 out of 33); international medical graduates, 39% (13 out of 33); third-year residents, 6% (2 out of 33); and other health professionals in primary care, 3% (1 out of 33). Upon obtaining their master's degrees, 43% (6 out of 14) took positions as research managers, 21% (3 out of 14) completed or are in the process of completing Canadian family medicine residency programs (ie, international medical graduates), 21% (3 out of 14) have enrolled in doctoral studies; and 15% (2 out of 14) have entered medical school with the intent of becoming family medicine clinician researchers. To date, we have not attracted any practising family physicians to our graduate program.

Conclusion Our early data suggest we are preparing our graduates for a broad range of appropriate careers in family medicine. In order to attract practising 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 doctoral program in family medicine.

Perception des médecins sur les facteurs d'adoption de la prescription électronique au Québec

Julie Payne-Gagnon MA Marie-Pierre Gagnon PhD Claude Sicotte PhD

Résumé

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 avantages étaient perçues 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 avantages 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.

Equity in colorectal cancer screening

Factors affecting family physician preferences and behaviour

Sandy Buchman MD CCFP FCFP Richard Glazier MD CCFP FCFP MPH Linda Rozmovits DPhil

Abstract

Context ColonCancerCheck, a colorectal cancer (CRC) screening program in Ontario, recommends fecal occult blood testing (FOBT) every 2 years for average-risk individuals aged 50 and older. Colonoscopy is covered by the provincial health plan. Within Toronto, there is considerable 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 using telephone interviews to explore physician preferences and behaviour.

Participants A total of 29 family physicians working in 9 family health teams in the Toronto Central Local Health Integration Network, which includes areas of high immigration, low income, and low screening rates; higher income areas where primary screening through colonoscopy is common; and increased access to private endoscopy clinics. Family health teams have electronic medical records, interprofessional teams, and management infrastructure, facilitating identification of variables linked to physician preference and behaviour rather than to the absence of structural supports.

Main 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 and lower 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. Promotion of FOBT 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 latter group.

Conclusion A multitude of administrative, patient-driven, and individual factors influence physician preferences and behaviour with regard to primary CRC screening. Screening strategies recommended by ColonCancerCheck do not appear to be as influential as these other factors.

Defining a typology of the specialist

Primary care interface using administrative data

Claire Kendall MD MSc Jaime Younger PhD Monica Taljaard PhD William Hogg MSc MCISc MDCM FCFP
Richard H. Glazier MD MPH Douglas G. Manuel MD MSc FRCPC

Abstract

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 to 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 receiving care in Ontario, the Canadian province with the highest prevalence of HIV.

Methods 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 comanagement, specialist–dominated comanagement, and exclusively specialist care.

Main outcome measures Patient and physician characteristics and outpatient visits by care pattern.

Results The prevalence of each care pattern among the 13480 eligible individuals was as follows: disorganized care, 1149 (8.6%); exclusively primary care, 6094 (52.7%); family physician–dominated comanagement, 1349 (10.0%); specialist–dominated comanagement, 4118 (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, residing rurally, from an immigrant population, and with lower ascertained comorbidity. In addition, the characteristics of family physicians varied among the patterns. Patients in both comanagement 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 effect of different patterns of care on the quality of care and health of individuals with complex conditions.

How do patients experience periodic health examinations?

Aileen Roman MD Daniella Guindi MD Svetlana Puzhko MD MSc Mark Yaffe MD CM MCISc CCFP FCFP

Abstract

Context Suggested benefits of periodic health examinations (PHEs) include opportunities for screening, health promotion, and fostering the doctor-patient relationship. The literature contains little about the PHE from the patients' perspective.

Objective To explore patients' feelings about, and experience with, the PHE.

Design Quantitative, participatory.

Participants English- or French-speaking patients aged 18 or older, receiving at least 1 PHE within the previous 24 months. 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 of 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.

Main 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 Recovery Self-Assessment Person in Recovery survey, and the Recovery Oriented Systems Indicators Consumer Survey 2005.

Results Of 196 patients agreeing to participate, 173 were retained in the final data set: 78.6% were female; the mean age was 48.4 years; mean years of care by the same doctor was 5.1; mean number of visits in the preceding 24 months was 4.9. More than 90% agreed or strongly agreed that their doctors respected them, listened, and informed them in a clear fashion. Overall 80% to 90% agreed or strongly agreed that their doctors were open to options for care, had concern about both medical and psychosocial issues, and recognized their rights to express worries and concerns, or refuse interventions. In total, 62.5% agreed or strongly agreed that a purpose of PHE visits was to help doctors know them better as people, while only 39.3% agreed that 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 out of 5 endorsed PHEs as important for doctors to get to know them, and fewer (2 out of 5) saw such visits as opportunities for them to get to know the doctors. Patients might not appreciate what might be necessary to foster meaningful doctor-patient encounters.

Addressing childhood and youth obesity in the primary care setting

Are we meeting the challenge?

Matthew Orava MD MSc Anwar Parbtani PhD MD CCFP

Abstract

Context Childhood obesity is a serious risk factor for multiple chronic diseases in adulthood. It is estimated that 1.6 million children (32%) in Canada are either obese or overweight. Data from the US National Institutes of Health suggests that primary care physicians do not regularly assess childhood obesity, despite specific guidelines. We suspect a similar paucity of care in 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 to 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 were assessed using z statistics and χ^2 analysis.

Results In total, 406 children and youths between 3 and 17 years of age were registered to these practices, and 28% of these children ($P < .001$) were never seen during the 1-year study period. Of those seen, only 42% (124 out of 293) had BMIs recorded ($P < .001$), 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 for only 21 of these children and youths ($P < .001$).

Conclusion Despite guidelines that 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 substantial care gap in the management of childhood and youth obesity and warrants appropriate educational programs. Perhaps a formal public health and primary care partnership is required to deal with this important determinant of health.

Clinical supervisors' perceived training needs to deliver elder care and teach it to their trainees

Anik Giguere PhD Françoise Proust PhD Philippe Karazivan MD MAEd Bernard Martineau MD MA DPES
Charo Rodriguez MD PhD Marie Meudec PhD Michèle Morin MD France Légaré MD PhD Paule Label MD

Abstract

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 in Quebec.

Design Explanatory sequential mixed methodology with 4 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; and 4) semistructured interviews with supervisors to thoroughly examine their training needs.

Participants All clinical supervisors (physicians, nurses, psychologists, and other professions) from 43 family medicine teaching units 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.

Methods 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 (eg, age, experience, clinical condition, setting) improved the odds that the participant had extensive training needs. Thirteen interviews (53 supervisors) were then audiorecorded, transcribed, and analyzed using a thematic qualitative approach.

Findings Compared with an office setting, supervisors reported more training needs in long-term care and home care settings owing to patients' more complex conditions, family caregivers' presence, and, for home care, the added challenge of globally assessing patients in their homes. 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 the need to coordinate care with interprofessional teams and family caregivers.

Conclusion Mental disorders and functional decline are priorities in elder care training. Training programs developed to address these needs should cover long-term care and home care settings and teach skills to improve communication with other professionals and family caregivers.

Resident perceptions of the utility of a formative academic benchmarking examination

John Chmelicek MD CCFP FAAFP FAWM Denise Campbell-Scherer MD PhD CCFP Tanya Barber MA Shelley Ross PhD

Abstract

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 Canada. In our residency program, we use the US family medicine ABE as a formative examination; residents are encouraged to use the ABE to identify areas of strength and weakness in preparation for studying for College of Family Physicians of Canada board examinations.

Objective To determine the extent to which residents perceive the ABE as useful to their learning at 3 points in time: before they write the examination, immediately after they write it, and immediately after they receive their results.

Design Longitudinal (3 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, composed of Likert scales and comment boxes.

Main outcome measures Self-reported perception of the utility of the ABE.

Findings A total of 106 residents (63%) consented to participate in the study and completed the preexamination and immediate postexamination questionnaires. Before the examination, 93 (88%) respondents indicated that the benchmarking examination was useful to them. In the comments, most residents referred to the value of the ABE for identifying areas of strengths and weaknesses. The 12% who thought the ABE offered little value cited the US origin of the examination and the dissimilarity in question types between the ABE and the board examinations. In the postexamination questionnaire, most still saw value in the examination, but the comments included indications that the type of feedback that accompanied the results would be crucial to its value. More residents also commented on the US origin of the examination. Fifty-four (51%) residents completed the survey after receiving their results. While most thought that the examination was useful to them, 75% believed that “using aggregate benchmark examinations results to guide residency academic programming” was not useful.

Conclusion The ABEs are perceived as useful by most residents. Work needs to be done to develop a Canadian ABE.

Gestion des échantillons de médicaments à l'Unité de médecine de famille Saint-François d'Assise

Ghislaine Tre MSc PhD Ulrich Ifoko MD CCMF Marie Ève Robert Michel Labrecque MD CCMF FCMF

Résumé

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 disait 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 de famille et de médecine d'urgence de l'Université Laval mette en œuvre une politique sur la gestion et l'utilisation des échantillons de médicaments.

Family physician perception of the usefulness of an intervention to improve continuity of cancer care

Michele Aubin MD PhD CCFP FCFP Lucie Vézina MA René Verreault MD PhD CCFP FCFP Lise Fillion RN PhD
Éveline Hudon MD MA Sébastien Simard PhD André Tourigny MD MPH Serge Dumont PhD
Serge Daneault MD MA Yves Lacasse MD FRCPC MSc Audrey Samson MA

Abstract

Context During the cancer treatment phase, FPs are often left out of the follow-up of their patients, and communication between FPs and the oncology team is frequently suboptimal. A multifaceted intervention was implemented to improve interprofessional collaboration and continuity of cancer care.

Objective To describe FPs' perceptions of the usefulness of the multifaceted intervention and compliance to adopt its components.

Design Mailed survey to FPs and patient chart review.

Participants A total of 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), of whom 74 responded to the survey.

Intervention The intervention included 1) systematic appointments with the FP; 2) 3-month transmission to the FP of standardized comprehensive summaries of patients' medical and psychological conditions; 3) systematic transmission to the oncology team of patients' information resulting from FP visits; and 4) development of priority access to FPs for cancer patients when needed.

Main 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 multifaceted intervention.

Results Almost three-quarters of FPs returned follow-up summaries to the oncology team; 46.6% returned all summaries and an additional 27.2% 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 approved of extending it to other types of cancer (95.5%). When questioned about 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%), their visits with their cancer patients (81.8%), and the priority access to them for emergencies (80.3%). But, fewer (63.6%) recommended maintaining the systematic summary sent by them to the oncology team.

Conclusion This multifaceted intervention was perceived as useful by most participating FPs and could help to improve interprofessional collaboration in the follow-up of patients with cancer.

Intimate partner violence

Assessment of family physicians' awareness, preparedness, and approaches

C. Gall MD J. Shaw MSc MD E. Kiss MD CCFP R. Raiciu MSc A. Parbtani PhD MD CCFP

Abstract

Context Intimate partner violence (IPV) is a ubiquitous social evil and an important negative determinant of health. In Canada, one-third of all police-reported violent crimes relate to IPV, with 80% of victims being female. Sadly, the children of IPV victims also suffer debilitating health and social consequences that last well into adulthood. It has been suggested that early identification of IPV or potential for IPV can play an important 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.

Objective To assess the status of IPV management in our community primary care setting.

Methods An 18-item questionnaire (modified from a 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 1 to 5) were assessed using *t* tests, and nominal data (yes or no) were assessed by χ^2 .

Results To date, 30 physicians have participated in the study (15 male, 15 female, from a pool of 80; 37.5%). Awareness: Most physicians agreed that IPV is a major health determinant, and that health care providers have a responsibility to screen for IPV (29 of 30; mean [SD] score of 4.2 [0.8]). Preparedness and approaches: Responses indicated deficit in these areas. Most physicians (73%) did not conduct routine IPV inquiry. However, female physicians used a routine set of questions if or when they did screen for IPV (mean [SD] score of 2.8 [1.5] vs 1.8 [1.0] for male respondents; $P = .04$). Education: Most (70%) indicated little or no training on IPV, but female physicians were more aware of community-based programs (mean [SD] score of 2.5 [0.7] vs 1.9 [0.8] for male physicians; $P < .04$). All physicians agreed that more education would improve IPV management (mean [SD] score of 4.5 [0.5]; $P < .001$).

Conclusion Most physicians recognized IPV as an important health determinant, but there existed a care gap in terms of preparedness and approach, as well as adequate training to deal with IPV. The study noted physicians' willingness to embrace more education on IPV, a signal that such initiatives would be well received.

How prevalent are “meet and greet” screening appointments for new patients?

Implications for access equity

Emily Gard Marshall PhD Beverley Lawson MSc Judy Chisholm MN Richard Gibson MD
Nirupa Varatharasan MSc Frederick Burge MD MSc FCFP

Abstract

Context Equitable access to primary care is fundamental to Canadian health care. 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.

Design Telephone survey to every FP and primary care NP office in Nova Scotia.

Participants Person answering provider office phone (N=602 completed of 780 offices).

Main outcome measures Proportion of providers requiring screening appointments for new patients. Secondary outcomes included whether screening appointments—and in what context—lead to provider or patients or both not proceeding with care.

Results Almost one-third (29.2%, n=176) of Nova Scotian 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 might help ensure a good fit between patient needs and provider capacity, it is imperative to safeguard equity in access to care.

In the loop

Primary care providers' role in newborn screening for cystic fibrosis

June C. Carroll MD CCFP Robin Z. Hayeems PhD Fiona A. Miller PhD Carolyn J. Barg MSc Yvonne Bombard PhD
 Peter Durie MD Pranesh Chakraborty MD Beth K. Potter PhD Jessica P. Bytautas Karen Tam ScM
 Louise Taylor NP Elizabeth Kerr PhD Christine Davies ScM Jennifer Milburn MHA Katherine Keenan
 Felix Ratjen MD Astrid Guttman MD

Abstract

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 practices in the previous 6 months. The PCPs were identified from Newborn Screening Ontario records as the screen-positive newborn's responsible provider.

Intervention The PCPs were mailed a questionnaire and invited to participate in an interview. The survey included questions about their role in notification of NBS positive CF results, confidence in providing results, barriers, and resources needed. Interview questions allowed PCPs to more fully discuss these topics.

Main 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 A total of 329 of 653 PCPs (50%) completed surveys; 38 PCPs participated in interviews. Survey respondents were 65% family physicians or nurse practitioners, 21% pediatricians, and 14% midwives. Most PCPs (65%) reported notifying the family of their infant's initial screen-positive CF result (vs notification) by the NBS centre; most 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% and 40%, respectively, when reflecting on their actual experience speaking with the family in their practice. Overall, 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.

What procedural skills do clerks perform in family medicine clerkships?

A CERA survey

Martina Kelly MB BCh MA CCFP Lara Nixon MD CCFP FCFP Kelly Everard PhD Alec Chessman MD

Abstract

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 practise during family medicine clerkships in allopathic medical school in the United States and Canada.

Design Descriptive survey.

Participants Family medicine clerkship directors in allopathic medical school in the United States and Canada.

Instrument A survey, informed by review of undergraduate procedural skills curricula, undergraduate family medicine curricula, and postgraduate family medicine curricula, was administered by the Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA) in August 2013.

Main outcome measures Clerkship characteristics; type of procedural skills performed during family medicine clerkship; frequency with which skill is performed; and relationship of skill performance with urban or rural clerkship.

Results Response rate was 73% (94 of 129; 9 of 17 Canadian schools). All clerkship directors indicated that clerks performed procedural skills during the family medicine clerkship. Overall, 59% (n=62) presented students with a list of required or recommended procedures. The 5 procedures performed at least once in the clerkship were Papanicolaou tests (57.1% of clerkships), vaginal swab (42.9%), electrocardiogram recording (41.9%), urinalysis (40.0%), and throat swab (39.0%). Procedures performed more than 3 times in the clerkship were Pap tests (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 family medicine clerkship were more likely to perform procedural skills than those whose clerkship sites were 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.

Timeliness of encounter note review by preceptors in academic family medicine teaching clinics

Carol Styles RN MPH Maria Krahn

Abstract

Context Timely feedback to residents on patient care and associated documentation is fundamental to learning, ensuring high-quality care and appropriate medicolegal oversight. Transition to electronic medical records (EMRs) has changed work flows 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 3-month time frame at 3 academic family medicine teaching clinics in Winnipeg, Man. A total of 333 encounter notes 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.

Main outcome measures Time (in 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%) within 14 days. However, 20% of notes sampled had not yet been marked as reviewed. For notes marked reviewed (n=267), median time from encounter note entry to review was 1 day (mean 7.58 days, range 0 to 84 days).

Discussion The results provide a basis for faculty to set improvement targets for timeliness of encounter note review. Further assessment of work flows 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 work flows and developing reliable reminder mechanisms is warranted. The results underscore the need for specific EMR functionality to support supervision of clinical learners.

Bereaved parents break the silence of stillbirth

Community-based participatory research project

Lynn Farrales MSc MD CCFP Jennifer Douglas PhD Jaime Ascher John Nanson MEd May Farrales
Andrea McComb Michael Klein MD FAAP CCFP FCPS Shafik Dharamsi PhD Christine Jonas-Simpson RN PhD
Joanne Cacciatore PhD LMSW FT

Abstract

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.

Objective 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.

Participants 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 to attend a public event featuring a sensitive topic.

Methods Community partners received training in qualitative research; topics included focus group facilitation, data analysis, ethical considerations, and reflexivity. A demographic form and a preliminary focus group guide constructed by the community and academic partners were used.

Findings Four focus groups were conducted with 27 bereaved parents. Acknowledgment emerged as a dominant theme in acute care settings where the finite window to interact with the baby's body occurred. Acknowledgment of the baby by health care providers was central as it related to the presentation of the baby to the parents, establishment of parenthood, and management of trauma.

Conclusion The findings highlight 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.

Effect of cultural differences on family medicine residency education

Validating a new assessment instrument

Douglas Archibald PhD Alison Eyre MD CCFP Dorota Szczepanik MD CCFP Lionel Laroche PhD Simone Dahrouge PhD
Timothy Wood PhD Memoona Hasnain MD MPHE PhD Daniel Longo ScD

Abstract

Context The assimilation and optimal education of international medical graduates (IMGs) continues to be a challenge for residency programs owing 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 The 48-item ICDRE was piloted with 68 family medicine residents from the University of Ottawa in Ontario. All items were rated on a 7-point Likert scale with responses ranging from "Strongly disagree" to "Strongly agree."

Main 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.

Conclusion Next steps will be to examine items with either very low or very high item-total correlations and to determine which are kept or modified for future versions of the ICDRE. We anticipate the ICDRE could help learners recognize that these possible differences translate into different behaviour in clinical and educational settings.

The "Nightmares" course

Effective simulation-based acute care training method for family medicine residents

Filip Gilic MD CCFP(EM) Ian Sempowski MD PhD CCFP(EM) Ana Blagojevic MD MSc Karen Schultz MD CCFP

Abstract

Context Acute care skills are difficult to teach but can be improved using high-fidelity simulation-based training. The Department of Family Medicine at Queen's University in Kingston, Ont, offered a program of episodic simulation training (acute care rounds [ACR]), but in 2011 we developed the "Nightmares" (NM) simulation course with the aim of teaching comprehensive acute care skills from the ground up in 4 sessions.

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 Twelve residents in the pilot NM course and 12 residents in time-matched ACR sessions participated in the study. All were in their first year of residency 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 second year of residency and scored using a validated scoring system. The scoring was done by 2 expert independent video reviewers.

Main outcome measures Self-reported changes on the questionnaire items before and after teaching sessions were analyzed using Wilcoxon matched pairs analysis. Differences at the end of the first year between the NM and ACR group mean scores were compared item by item using Student *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 Student *t* tests.

Results The NM initial 2-day session significantly improved the residents' self-assessment scores on all 20 items of the questionnaire ($P < .05$). Time-matched ACR improved 11 out of 20 items ($P < .05$). Follow-up NM sessions improved 5 to 8 out of 20 items ($P < .05$). Follow-up ACR sessions improved 1 to 5 out of 20 items ($P < .05$). End-of-the-year means were higher for 13 out of 20 items in the NM group ($P < .05$). On the OSCE, the NM group scored significantly higher on both the mean combined scores ($P < .004$) and the global assessment score ($P < .026$).

Conclusion The NM course was more effective than our standard curriculum at teaching acute care skills to the family medicine residents.

Poster abstracts / Résumés d'affiches

Canadian rural emergency departments have limited access to services

Richard Fleet MD PhD CCFP(EM) Julie Villa MPS Patrick Archambault MD MSc FRCPC CSpQ Julien Poitras MD CSpQ

Abstract

Context Emergency departments (EDs) are important safety nets for the 20% of the Canadian population who live in rural areas. 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 might affect access to comprehensive emergency care.

Objective 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 (as defined by Statistics Canada) in every province and territory were selected to participate. We focused on hospitals that have ED physician coverage 24 hours a day, 7 days a week, and hospitalization beds. Data were collected from ministries of health, local health authorities, and ED statistics. Semistructured recorded telephone interviews were 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 averaged 12 200 annual ED visits. The proportion of rural hospitals having local access to the following services 24 hours a day, 7 days a week, was as follows: intensive care unit, 24%; general surgeon, 27.5%; internal medicine, 13%; obstetrician, 12.5%; pediatrician, 6%; psychiatrist, 9%; computed tomography scanner, 15%; ultrasound, 22%; basic x-ray and laboratory services, 95%. The average distance to the nearest referral hospital and trauma centre was 240 km.

Conclusion This is the first study to describe the services offered by all Canadian rural EDs. Most rural EDs have limited access to professional and ancillary services other than basic laboratory and x-ray services. A detailed study is required to evaluate the effects of these limited services on interfacility transfers, costs, professional recruitment and retention, and patient outcomes. Further analyses are required for interprovincial and rural-urban comparisons.

Family physicians do not use the clinical practice guideline of the Canadian Task Force on Preventive Health Care on screening for type 2 diabetes

Michel Labrecque MD PhD CCFP FCFP Marie-Michèle Blais MD CCFP Catherine Dubé MD CCFP
Roxane Gagné MD CCFP Marie-Line Tousignant MD CCFP Stéphane Turcotte MSc

Abstract

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 4 family medicine teaching units and 12 family medicine clinics in Quebec city, Que.

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% CI 66% to 81%) of respondents knew of the existence of the CTFPHC, 48% (95% CI 40% to 57%) knew of the existence of the CPG, 25% (95% CI 18% to 33%) knew its recommendations, 12% (95% CI 8% to 19%) agreed with it, 10% (95% CI 6% to 17%) adopted it, and 0% adhered to it. These proportions were lower among physicians in medical clinics, with more than half not even knowing of the existence of the CTFPHC. The current practice described by physicians who claimed to follow either the Canadian Diabetes Association or the CTFPHC recommendations did not match those recommendations (57% and 66%, respectively). Contrary to the CTFPHC recommendations, the majority of respondents would prescribe a blood glucose test to an individual with a low risk (76%) or a moderate (94%) risk of diabetes. The intention to implement the CTFPHC recommendations was moderate (mean [SD] score of 4.6 [1.6] out of 7). It was significantly associated with past behaviour related to CPGs, and attitude, socioprofessional norm, and perceived behavioural control vis-à-vis the CPG. The main barriers identified were calculation of the risk for each patient, patients' 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 physicians participating in this study. Strategies to overcome the barriers identified could improve the implementation of this evidence-based CPG and possibly of other CPGs from the CTFPHC.

Nonpharmacologic outpatient interventions for benzodiazepine discontinuation in elderly persons

Melissa Lee Tejal Patel PharmD Linda Lee MD MCISc(FM) CCFP FCFP

Abstract

Context Benzodiazepine use is associated with adverse effects in the elderly such that discontinuation is recommended. Abrupt discontinuation is discouraged owing 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 nonpharmacologic 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 Prospective clinical trials using outpatient participants with a mean age of at least 60 years were included. Studies that were not published in English, were noncomparative, used medication-based withdrawal interventions, or did not report outcomes were excluded.

Synthesis Of 1444 abstracts reviewed, 12 articles reporting outcomes from 9 studies (N=5558) met eligibility criteria. Benzodiazepine cessation rates were derived using an intention-to-treat analysis. Three types of interventions were identified: minimal intervention (MI), such as a letter or brief consultation explaining self-help strategies to reduce benzodiazepine use; dose-tapering schedules (DT), including reductions of 10% to 25% every 1 to 2 weeks; and psychological interventions of 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 the success of MI plus DT (45%) was greater 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, 1 study (n=180) reported that CBT plus DT had lower success (27%) than 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 with discontinuing benzodiazepine use in the outpatient setting. Combination strategies involving dose tapering appear to have the greatest success in long-term cessation of benzodiazepines.

Clinically significant decisional conflict in primary care

Comparative analysis

Philippe Thompson-Leduc France Légaré MD PhD CCFP FCFP

Abstract

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, that patients need to make value trade-offs in selecting their course of action and anticipate 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 to explore its potential risk factors.

Design Secondary analysis from existing data sets 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 The Decisional Conflict Scale (DCS), a validated 16-item questionnaire.

Main outcome measures *Clinically significant decisional conflict* was defined by a score equal to or greater than 25 out of 100 on the DCS. We performed descriptive statistic analyses 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 data sets, 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 aged between 18 and 34 years. Prevalence of CSDC ranged between 10.3% and 31.1%. Decision about antibiotics created more CSDC than the other decisions. Living alone was a predictor of CSDC in 4 out of 5 studies (odds ratios ranged from 1.48 to 2.84). We found that CSDC was significantly higher for male patients in 3 out of 4 studies. Other sociodemographic 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.

Prostate-specific antigen screening

How primary care physicians interpret and apply conflicting evidence

Zachary Corso Jeff Sisler MD MCISc CCFP FCFP S. Michelle Driedger PhD

Abstract

Context The question of whether to screen or not to screen using prostate-specific antigen (PSA) testing for detection of prostate cancer has been a highly debated topic. Despite changes in clinical recommendations, screening behaviour on the part of primary care providers still varies 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 practices.

Design A series of qualitative semistructured interviews guided by a process of convergent interviewing to facilitate the exploration of key concepts. Data were analyzed using NVivo9. Conclusions were generated based on an examination of areas where participants converged and diverged.

Participants Six family physicians, both rural (n=2) and urban (n=4), associated with the Uniting Primary Care and Oncology Network of CancerCare Manitoba.

Findings Participants' positions were split evenly 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 did screen believed that the evidence was conflicting and that the benefits might still exceed the risks. All participants agreed that the patient had the ability to decide for or against PSA screening after an informed discussion, although physicians who did not routinely screen were less likely to raise the topic. Perceptions of PSA screening were informed by individual articles, task force or 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 The example of 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 might help in the implementation of evidence-based medicine, particularly in the context of shifting or conflicting recommendations.

Use of advance care planning in the primary care setting

Erin Falconer MD Mia Steiner MD

Abstract

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 advance care plans, 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.

Participants Patients aged 65 years and older presenting to the primary care physician office of the Belleville Queen's Family Health Team in Ontario.

Instrument The survey was adapted from the ACCEPT (Advance Care Planning Evaluation in Elderly Patients) study. 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 physicians.

Main 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 end of life. Patients scored all end-of-life 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. Most patients had thought about ACP (76%), felt comfortable discussing ACP (70%), had started ACP discussions (78%), and had formally designated a power of attorney (74%). Events that triggered ACP engagement were elicited. In this group, 19% of patients had 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. Belleville Queen's Family Health Team physicians report having ACP discussions with only approximately 10% of appropriate patients.

Conclusion Primary care physician initiation and documentation of ACP preferences is poor. Most patients have initiated ACP activities, while a minority report specific barriers to ACP engagement. Routine inquiries about ACP for elderly patients can allow physicians to initiate patient-tailored ACP interventions.

Point-of-care ultrasound use in rural emergency departments of Quebec

Pierre Léger MD Richard Fleet MD PhD CCFP(EM) Julie Maltais-Giguère DFP MSc
Jeff Plant MD FRCPC Eric Piette MD FRCPC France Légaré MD PhD CCFP

Abstract

Context Point-of-care ultrasound (POCUS) is an examination that can be rapidly performed at the patient's bedside for the purpose of answering specific clinical questions, identifying or ruling out potentially life-threatening concerns, and improving safety of procedures. However, actual use of POCUS in Canada remains unclear. We examined access to POCUS and potential barriers and facilitators to its use among rural emergency department (ED) 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 in 2012. The questionnaire was pretested 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 medical coverage 24 hours a day, 7 days a week, and offered acute care hospitalization beds.

Results In total, 108 surveys were completed (participation rate=52.4%). Overall, 93% were family physicians; 7% had CCFP(EM) Certification in Family and Emergency Medicine with a median 7 years of practice experience. A bedside ultrasound device was available in 95% of rural EDs and 75.9% of respondents reported using POCUS on a regular basis. The most common indications for using POCUS were to rule out 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. Overall, 64% received training from the Canadian Emergency Ultrasound Society, 13% from the Canadian Association of Emergency Physicians, and 23% from another course. Finally, 95% of respondents stated that POCUS skills were 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 this study's having the highest participation rate to date, response bias of enthusiastic POCUS users cannot be excluded.

Pattern of interest in third-year enhanced-skills programs

Family medicine residents' perspective

Yuexi Chen MDCM Ran Yan MD

Abstract

Context Increasing numbers of family medicine (FM) residents choose to pursue additional training in the form of third-year residency programs following the completion of residency. Little research has been done to study this important decision-making process. In addition, there is a long-standing debate about the adequacy of the length of FM training in Canada, and whether this contributes to the growing popularity of third-year programs.

Objective To assess FM residents' pattern of interest toward third-year programs, how this interest evolves over the course of residency, the factors influencing residents' decisions, and residents' perceptions of the adequacy of FM curriculum length.

Design Cross-sectional survey.

Participants Family medicine residents and third-year residents currently enrolled at the University of Toronto in Ontario.

Results A total of 122 residents responded to the survey (response rates: 32% for first-year residents, 22% for second-year residents, and 64% for third-year residents). Approximately 80% of respondents reported an interest in third-year programs before starting residency; 58% of the respondents were interested at the time the survey was taken. Interest was higher among first-year residents and those interested in incorporating hospital-based practice. Emergency medicine was the most sought-after third-year program. Residents' decisions to pursue third-year programs were mainly driven by their interest and desire to acquire more knowledge in a particular specialty rather than lack of readiness for independent practice. Residents' decisions not to pursue third-year programs 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 third-year programs.

Conclusion The demand for third-year programs among FM residents at the University of Toronto is primarily driven by interest rather than perceived inadequacy of FM training. Interest in a third year seems to decrease with increased 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.

Capacity building in a cross-jurisdictional primary care research team

Xingchen (Amber) Chen Cheryl Levitt MBBCh CCFP FCFP Noah Ivers MD CCFP

Abstract

Context An interdisciplinary collaboration of 42 researchers, clinicians, professionals, and decision makers from Canada and New Zealand was formed for a Canadian Institutes of Health Research Community-based Primary Health Care grant application, to compare and evaluate the effect of a practice accreditation model on chronic disease services in primary health care. 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 the opportunities and barriers associated with capacity building, and further recommendations to implement a capacity-building strategy for primary health care research teams.

Design The basic study design involved 2 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, 3 senior researchers, and 1 decision maker were strategically chosen for participant interviews.

Intervention The interventions employed by the study include SWOT (strengths, weaknesses, opportunities, and threats) analysis, international webinars, and interviews of sampled participants.

Main 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 comprising 5 objectives (mentorship, nurturing environment, quality improvement research, knowledge translation, and cultivating QCANZ champions), and were included as the capacity-building plan in the grant application. Areas of focus included 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, by employing both formal and informal processes.

Identifying critical health infrastructure for newcomers in Hamilton, Ont

Perspectives of primary care providers

Brittany Julian MD Jillian Salvador MD Lynda Redwood-Campbell MD FCFP DTM&H MPH Andrea Hunter MD FRCPC FAAP DTM&H

Abstract

Context Multiple complexities exist in providing health care for newcomers (ie, refugees and immigrants within 2 years of arrival in Canada). Few studies examine these from a primary care practitioner (PCP) perspective.

Objective 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 PCPs, with a response rate of 78%.

Instrument An online questionnaire was developed by item generation from literature review and expert input and was pretested and pilot-tested. The survey was validated by clinical sensibility testing with residents and its content validated by local experts.

Main outcome measures Primary care practitioner perspectives regarding barriers to care, accessibility of relevant community resources, use of medical tools, and avenues for CPD were measured using multiple-choice questions and Likert, and rank-order scales. Descriptive analysis was performed.

Results The PCPs reported language differences as the barrier most often encountered (65%), followed by vague patient complaints (52%), billing (52%), inexperience with the health care system (42%), discrepancy of backgrounds (39%), inexperience with the medical problem (33%), and length of appointment (32%). The PCPs reported greatest accessibility for language training and cultural activities and least accessibility for health system navigation. More than 50% of PCPs had not referred to, or were not aware of, any of the listed local resources or agencies. Only 52% of respondents reported awareness of the 2011 Canadian *Evidence-based Clinical Guidelines for Immigrants and Refugees*, with 10% reporting implementation. Challenges reported included difficulty recalling content (70%) and length of the document (50%). Most respondents had participated in a newcomer health CPD activity (58%), most within the past 2 years (72%), and most often in a conference format (67%). The PCPs preferred formats for future CPD as guest presentation or rounds (89%), conferences (79%), and electronic medical record tools (73%).

Conclusion Primary care practitioners report multiple barriers to 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 might improve health care delivery to newcomers.

Theory-based tool to assess the effect of continuing professional development on clinical practice

France Légaré MD PhD CCMF FCMF Francine Borduas MD Adriana Freitas PhD André Jacques MD
Gaston Godin PhD Francesca Luconi PhD Jeremy Grimshaw MB ChB PhD FRCGP FCAHS

Abstract

Context Continuing professional development (CPD), including continuing medical education, 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 effects of CPD activities on clinical practice.

Objective Using an integrated model for the study of health care professionals' intentions and behaviour as a theoretical framework, we sought to develop a theory-based instrument for evaluating the effect of CPD activities on health professionals' clinical practice.

Design After completing a systematic review and analysis of existing instruments assessing health care professionals' intentions and behaviour, we created an inventory of instruments based on sociocognitive theories. 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 We created a preliminary instrument with the items found most relevant and assessed its factorial validity, internal consistency, and reliability over a 2-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% were discarded as duplicates. Two e-Delphi 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 κ values between 0.4 and 0.6. Cronbach coefficients for the constructs varied, ranging 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 effects of CPD activities on health professionals' clinical behaviour showed adequate metric properties. This instrument could encourage CPD developers to incorporate the same sociocognitive factors into their training programs and will help researchers explore these factors further.

Family medicine clerkship evaluations: OSCE or a mini-CEX?

Student and faculty perceptions

Melissa Nutik MD CCFP FCFP MEd Debbie Elman MD CCFP FCFP Linda Rozovits PhD Risa Freeman MD MEd CCFP FCFP

Abstract

Context Identifying feasible tools that promote direct observation of medical students' clinical and communication skills, provide point-of-care feedback, and that can be used for assessment is critical.

Objective To elucidate views of medical students and faculty educators on the use of a mini-Clinical Evaluation Exercise (CEX) tool modified for family medicine (FM) clerkship (FM-CEX), compared with an FM Objective Structure Clinical Examination (FM-OSCE).

Design Qualitative approach using semistructured 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 during the 2012-2013 academic year 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 University of Toronto were invited to participate in a faculty focus group (n=6). Students and faculty separately compared their experiences of the tools.

Main 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 the FM-OSCE as a better learning experience. Faculty described the strengths of FM-CEXs as offering 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 the complexity of real patients. Students and faculty had concerns about the FM-CEX, including 1) lack of consistency in marking standards, 2) high degree of variability in execution, 3) pre-existing relationship between students and preceptors as a barrier to objective evaluation, and 4) 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 than the FM-CEX. The value of observed encounters via FM-CEX was considered high by faculty because these often revealed aspects of student performance that might not otherwise emerge. Students expressed the perception that FM-CEX added little value to their experience.

Evidence synthesis and implementation plan for the BETTER2 project

Denise Campbell-Scherer MD CCFP PhD Carolina Aguilar MA MSc Ginetta Salvalaggio MD CCFP MSc
June Carroll MD CCFP FCFP Kris Aubrey-Bassler MD CCFP(EM) MSc Christopher Meaney MSc

Abstract

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 8 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) that 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 To 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 PPs.

Intervention Using the BETTER tool kit, 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.

Main 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. Prevention practitioners 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 clinical practice guidelines 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.

Médicaments potentiellement inappropriés chez la personne âgée

Une évaluation de qualité de l'acte

Marc Olivier Déziel Malouin MD Sophie Perrault-Harvey MD Mathieu Pelletier MD CCMF
Sylvain Bellemare MD CCMF Sabrina Leclair MD CCMF

Résumé

Contexte 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 Cent cinquante 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 1^{er} 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 Cent trente-sept 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.

Investigating the perceptions and satisfaction outcomes of women receiving intrauterine devices

Paige Hacking Shaye Lafferty Rupinder Mangat MD CCFP

Abstract

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 health care professionals for counseling their patients.

Objective To determine the demographic characteristics and patient experiences of women receiving IUDs.

Design Patients completed an optional and anonymous survey entitled the IUD Experience Survey.

Participants Female patients of the IUD Clinic in Calgary who attended their 6-week IUD postinsertion appointments were eligible for this study.

Intervention Patients referred to the IUD Clinic received either a group information session or individual consultation 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.

Main outcome measures Surveys explored patient demographic characteristics, reported insertion pain in relation to previous vaginal delivery or misoprostol use, and overall satisfaction with their IUD choice. All ratings used 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. The reported relationship statuses included dating a regular partner (36%), living with a regular partner (34%), married (36%), and no regular partner (9%). The top cited reason for switching from their previous contraceptive methods to an IUD was "trouble remembering to take/use birth control." There was a statistically significant decrease in mean (SD) reported pain in patients who gave a history of previous vaginal delivery (2.52 [0.22]) compared with those who did not (3.71 [0.13]). The use of misoprostol before insertion did not produce a statistically significant difference in reported pain. The participants' mean (SD) overall satisfaction rating of their IUD was 4.13 (0.07).

Conclusion Previous vaginal delivery appears to be associated with less painful insertion; however, it is unclear as to whether misoprostol has an effect in decreasing pain. Despite painful insertion, participants were very satisfied with their IUD choice. With these findings, physicians will be better informed when counseling their patients on what to expect when choosing an IUD.

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

Sylvain Bussi eres PhD Alain Tanguay MD Denise H ebert Inf Richard Fleet MD PhD CCFP(EM)

R esum e

Contexte L'utilisation inappropri ee des v ehicules ambulanciers est un probl eme de sant e publique rapport e internationalement. Cette  tude r etro prospective a  t e men ee afin de d eterminer les caract eristiques des patients transport es par v ehicule ambulancier.

M ethodes L'analyse r etro prospective des patients transport es par v ehicule ambulancier   l'unit e d'urgence du CSSS Alphonse-Desjardins site CHAU de L evis du 1^{er} avril 2011 au 31 mars 2013 a  t e effectu ee. L'ensemble des patients ayant s ejourn e moins de 12 heures   l'unit e d'urgence a  t e  tudi e afin d'identifier les diagnostics qui ont men e   un cong e pr ecoce.

R esultats Du 1^{er} avril 2011 au 31 mars 2013, 26 149 patients transport es par v ehicule ambulancier ont  t e accueillis   l'unit e d'urgence du CSSS Alphonse-Desjardins, site CHAU de L evis. De ces patients, 3 954 (15,11 %) ont obtenu leur cong e de l'unit e d'urgence vers leur domicile en moins de 3 heures. Les diagnostics les plus fr equents sont : plaies et contusions, entorses et fractures, cervicalgie, dorsalgie, lombalgie, TCC, anxi et e. L' tude des diagnostics a montr e que 2 046 patients auraient pu venir   l'unit e d'urgence sans transport ambulancier. Ceci repr esente 7,85 % des 26 149 transports, et 83 % de ces 2 046 patients consultent pour traumatismes mineurs.

Conclusion Cette  tude r etro prospective a permis de d eterminer que 7,85 % des 26 149 patients pr esentent des conditions cliniques non-urgentes sans n ecessit e de transport ambulancier. Une recherche plus approfondie permettra d'identifier et valider les crit eres de s election des pr esentations cliniques dont le mode appropri e de transport pourrait  tre autre qu'ambulancier.

Youth with chronic health conditions transitioning to adult services

Family physician's role

Angela Han Erin McFee Dewey Evans PhD Sandra Whitehouse MD FRCPC MALS

Abstract

Context When youth with chronic health conditions (CHCs) age out of pediatric 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 FP attachment before 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 before transfer.

Design Patients and their caregivers completed identical self-administered computerized questionnaires separately asking what health services the youth or their caregivers accessed for certain medical issues, and the perceived FP's role in managing the youths' health. Data were input directly into REDCap for analysis.

Participants Outpatients aged 14 to 18 years at BC's Children's Hospital cardiology and neurology clinics, and inpatients (wards 3F and 3M) with CHCs (n=71) and their caregivers (n=78) were included. 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 caregivers, 63% of youth reported never, 25% sometimes, and 4% always. Therefore, in this abstract we report the caregiver data, the caregiver representing the primary manager of the youth's care. Overall, 95% of youth have FPs, and 49% of youth have pediatricians. Of those who have FPs, 35% have seen their FPs 2 times or less in the past 2 years and 15% have not seen their FPs in the past year. While youth and caregivers accessed FPs up to 85% of the time for basic health issues, they accessed BC's Children's Hospital specialists surprisingly frequently for these (49%, prescription refills; 29%, mental health issues; 14%, sexual health issues; 8%, immunizations).

Conclusion The results demonstrate that most youth with CHCs have FPs but 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.

Student outcomes of a new preclerkship family medicine longitudinal program

Beverley Karras MD CCFP Deirdre Andres MD CCFP Meredith McKague MD MSc FCFP Shari McKay MSc

Abstract

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 project's report recommending an increased emphasis on generalism.

Objective To determine the effects of a preclerkship family medicine experience on medical student attitude and self-assessment of skills.

Design Students were surveyed before and after the experience. A previous nonexposed class was surveyed for comparison.

Participants All 85 second-year students of the 2011-2012 academic year 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 family physicians 4 times a year for 3 hours a session. Under direct supervision, students practised interviewing, physical examination, and developing management plans. They were introduced to principles of screening, chronic disease management, and management of undifferentiated presentations. Written assignments were completed.

Main outcome measures Changes noted in student attitude and self-assessment of skills in preexposure and postexposure surveys, including comparison with a nonexposed previous class.

Results Response rates were 55.3% (preexposure), 63.5% (postexposure), and 50.6% (comparison, nonexposed). On all 19 self-assessment items, the postexposure students reported higher self-assessment of skills compared with both the preexposure and nonexposed comparison groups. Of the items, classified according to CanMEDS–Family Medicine undergraduate roles, there were 9 statistically significant differences: family medicine expert (6 out of 9), collaborator (1 out of 1), scholar (1 out of 1), and professional (1 out of 2). The 3 career interest questions revealed a trend toward higher overall interest in family medicine and other primary care specialties between preexposure and postexposure groups (not statistically significant). Regarding the 8 attitudinal items, all respondents showed a positive attitude toward family medicine, with only 1 statistically significant positive change from the preexposure to postexposure group related to referral of interesting patient cases.

Conclusion Medical students have a positive attitude toward family medicine. Participation in a preclerkship longitudinal family medicine clinical experience does improve their self-assessment of their skills related to CanMEDS–Family Medicine undergraduate roles.

Update of Cochrane review of interventions for improving the adoption of shared decision making by health professionals

France Légaré MD PhD CCMF FCMF Dawn Stacey RN PhD Stéphane Turcotte MSc Marie-Joëlle Cossi PhD
Jennifer Kryworuchko RN PhD Ian Graham PhD

Abstract

Context Shared decision making is desirable but has not yet been widely adopted in clinical practice.

Objective To identify effective interventions for improving the adoption of shared decision making by health care professionals.

Methods An update of Légaré and colleagues' 2010 Cochrane systematic review "Interventions for improving the adoption of shared decision making by healthcare professionals" was performed by rerunning an updated search in the Cochrane Library, MEDLINE, EMBASE, CINAHL, EPOC, PsycINFO, and ClinicalTrials.gov registry databases, as well as through the 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. Studies were eligible if the occurrence of shared decision making was evaluated using an observer-based outcome measure or a patient-reported outcome measure. Interventions were categorized as follows: interventions targeting patients, interventions targeting health care professionals, and interventions targeting both patients and health care 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 shared decision making. For continuous patient-reported outcome measures, we observed a slight effect in the 3 categories of intervention. For continuous observer-based outcome measures, we observed a median standard effect size of 1.13 (range from 1.04 to 1.21) in interventions targeting patients, 0.73 (range from 0.29 to 2.07) in interventions targeting health care professionals, and 2.13 (range from 1.42 to 2.83) in interventions targeting both patients and health care professionals.

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

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

Valérie-Anne Gagnon MD Maude Rhéaume MD Annie Thiffault, inf. Clinicienne
Sylvain Blanchet MD CCMF Lucie Vézina MA Caroline Rhéaume MD CCMF PhD

Résumé

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 international 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.

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

Abstract

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 8 weeks between abnormal FOBT results 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 abnormal FOBT results 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). The QFHT electronic medical record was used to identify charts of patients with abnormal FOBT results.

Main 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 abnormal screening FOBT results, 71 accepted referral to the gastroenterology service. On average, 7.4 days (range 0 to 50 days) elapsed after an abnormal FOBT result was available and a physician forwarded a referral to the clerk. The clerk took on average 1.0 days (range 0 to 4 days) to forward the referral to the gastroenterology service. Of the 71 patients referred, 50 underwent colonoscopy and 10 underwent computed tomographic colonography, with the remainder lost to follow-up or declining testing. From time of referral, it took on average 64.2 days (range 14 to 224 days) for a patient to receive a colonoscopy. Of the 50 patients who underwent colonoscopy, 20 (40%) received it within the recommended time frame of 8 weeks from abnormal FOBT to colonoscopy.

Conclusion Of those patients undergoing colonoscopy following an abnormal FOBT result, less than half received it within the recommended time frame of 8 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 might apply to other family practices, allowing for streamlining within other organizations.

Most notable family medicine research studies in Canada

A retrospective

Cheryl Levitt MBChC CCFP FCFP Eric Mang MPA Alan Katz MBChB CCFP MSc FCFP Artem Safarov

Abstract

Context The College of Family Physicians of Canada's (CFPC's) Health Policy and Government Relations (HP&GR) department collaborated with the CFPC Section of Researchers (SOR) in 2014 to identify the most notable Canadian family medicine research. This exercise demonstrates the unique value that Canadian family medicine 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 3 main areas: topics of interest, regional representation, and quality of studies. To complete the task, the SOR developed a list of studies that had received awards as the CFPC Outstanding Family Medicine Research Article or the *Canadian Family Physician* Best Original Research Article, or that had been led by a recipient of the Family Medicine Researcher of the Year award. Members of the CFPC SOR council and research directors from the 17 Canadian university 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 HP&GR helped choose the most noteworthy.

Main outcome measures An advocacy document called *The Seven 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 medicine research studies for Family Medicine Forum 2014.

Results Thirty-one studies were reviewed. A short list of 16 studies was developed. From this, HP&GR chose *The Seven Wonders of Family Medicine Research* and the SOR chose the top 10 family medicine research studies.

Conclusion The HP&GR department and the SOR identified *The Seven Wonders of Family Medicine Research* and the top 10 family medicine research studies, respectively, to represent the unique value that Canadian family medicine research has brought to health care. 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 effect on patient care.

Facilitators and barriers to the implementation of the BETTER2 program

Qualitative evaluation of a new approach to chronic disease prevention and screening

Nicolette Sopcak PhD Carolina Aguilar MA MSc Kris Aubrey-Bassler MD MSc CCFP(EM)
Richard Cullen Melanie Heatherington MEd Donna Manca MD MCISc FCFP

Abstract

Context As cancer, diabetes, and heart disease become growing health care problems, primary care settings focus more on chronic disease prevention and screening (CDPS). BETTER2 (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Primary Care 2) 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.

Objective 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 Nineteen primary care providers (eg, physicians, PPs, clinic staff), managers, researchers, and administrators.

Intervention The program aims to transform practice through a patient-level intervention for patients aged 40 to 65 years that improves CDPS in primary care for cardiovascular disease, diabetes, cancer, and associated lifestyle factors.

Main outcome measures A description of barriers and facilitators to the implementation of BETTER2 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 3 areas key to the implementation of BETTER2. Our evaluation suggests that an awareness of both the need for increased CDPS and the limitations for physicians to do CDPS themselves was 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 of offering the BETTER2 program was particularly important for physicians and practices that were paid fees for service.

Conclusion The lessons learned from implementation of BETTER2 might be useful to other practices and policy makers as they consider implementing this or a similar approach to CDPS in primary care settings.

Using EMRs to assess patterns of health care use and quality of primary care at a homeless clinic

Anjori Pasricha MD MSc (Clin Epid) Elizabeth Muggah MD CCFP MPH Wendy Muckle RN MHA Claire Kendall MD CCFP MScPH

Abstract

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, Ont.

Participants All adults over the age of 18 years with at least 1 face-to-face clinic visit between January 1, 2009, and December 31, 2010, were included. We extracted data from the OSCAR-CAISI secure EMR record system, a Web-based, open-source EMR software.

Main 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 the period January 1, 2011, to August 31, 2012. Eight quality indicators were used to assess quality of care.

Results Among the 1257 patients included, 14.7% had had mental health diagnoses, 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 chronic diseases than for those with mental health disorders (2.69 vs 2.44 prescriptions per patient). For non-mental health services, health care use was highest in patients with chronic diseases only (eg, 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 or prevention. Scores for these indicators were low across all patient groups.

Conclusion There are substantial 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.

