wide-scope study, Urgences Rurales 360, that aims to explore problems faced by every of the 28 rural EDs in Québec and the solutions that could be implemented to resolve them.
Keywords: rural, emergency, access

P013

What are the short-term goals of patients presenting the emergency department with an acute mental health complaint?

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Introduction: In the last year, Canada published its Strategy for Patient-Oriented Research (SPOR) to ensure that patients receive the right treatment at the right time. Approximately, one in five Canadians will experience a mental illness in their life time, with many presenting to the Emergency Department (ED) as their entry point into the system. In order to improve patient outcomes and focus on patient-identified priorities, the aim of this study was to identify the short-term goals of patients with an acute mental health complaint (AMHC) presenting to the ED. **Methods:** We prospectively recruited a convenience sample of patients presenting to an inner city, academic ED with an annual census of 85,000 visits. Patients provided written informed consent and completed a survey package that included questions about employment intentions and short-term life goals. We collated the goals and used a content analysis to summarize the frequency of themes that emerged. **Results:** This study reports on the preliminary data from 108 of the targeted 200 patients (mean age 39.7 ±13.6 years; 65% male). A total of 75% of participants reported being unemployed, 84% of whom reported that they would like to gain some form of employment in the near future. Over half the sample (52%) identified that they were not satisfied with their current housing situation. In addition to improving housing and obtaining work, improving mental health (n = 34), improving relationships with family or friends (n = 27), going back to school (n = 22) and managing addiction problems (n = 20) were identified as the most common short-term goals. Other goals/priorities included improving physical health, traveling, exercising, and eating better. **Conclusion:** This study provides new information about the priorities of adults presenting with AMHC to the ED. It also offers insight into how to collaborate with patients to build sustainable, accessible, and coordinated care pathways that can bring about positive changes in their lives. This information can be used to compliment current care for mental health problems, ensuring greater quality, accountability, and continuity of care for this vulnerable patient group.
Keywords: patient centered care, goals, mental health

P014

Palliative and end of life care education in Canadian emergency medicine residency programs: a national cross-sectional survey

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Introduction: Palliative care is a broad approach to care for patients with serious or life-threatening illnesses. This includes relief of symptoms, such as pain, that interfere with a patient's quality of life. It therefore falls firmly within the realm of emergency medicine (EM). 94% of emergency physicians report a need for education in dealing with death and dying. Nevertheless, there are no generally agreed upon competencies for Canadian EM residents with regard to palliative care and end of life care in the emergency department (ED). We performed a cross-sectional study of Canadian EM residency programs to measure the existing curricula in palliative and end of life care. Our primary outcome was the prevalence of structured educational programs for palliative and end of life care. **Methods:** An e-survey was e-mailed to all program directors of both CCFP(EM) and EM post-graduate training programs countrywide, using FluidSurveys^{TM}. It included questions regarding current palliative and end of life care curricula from formal rotations to seminars and online modules. The survey was developed in consultation with the author group including specialists in education, palliative care medicine, emergency medicine, and medical education. Hired translators were employed to include French speaking programs in Canada. This study had ethical approval: Interior Health REB and UBC CREB certificate 2016-17-026-H. **Results:** The survey was open from October 12th to December 19th, 2016. During that time, we received 26 responses including 5 French speaking programs, for a response rate of 72.2%. The primary outcome was present in 38.5% of programs. There was no difference between FRCP and CCFP(EM) programs in the occurrence of the primary outcome ($p = 1$; Fisher's Exact Text). However, CCFP(EM) program directors commented that many of their residents had completed palliative care rotations in their family medicine training. The largest barriers to education included time (84.6%), curriculum development (80.8%), and availability of instructors (50.0%). **Conclusion:** Our preliminary analysis shows that few Canadian post-graduate EM programs have a structured educational program pertaining to palliative and end of life care. Current barriers to education that can be addressed in future curricular initiatives include lack of time, curriculum development, and instructor availability.
Keywords: end of life care, palliative care, resident education

P015

Leadership and administration: a novel elective rotation for emergency medicine residency training

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Introduction / Innovation Concept: In 2015, the Royal College of Physicians and Surgeons of Canada set out to redefine the CanMEDS roles including replacement of the "manager" role to that of the "leader". This was to highlight the fact that skills in leadership are crucially important as ongoing health care improvement occurs. This educational innovation was born out of a need for formal education in leadership and administration in post graduate emergency medicine training. **Methods:** Few post graduate emergency medicine training programs in Canada have leadership and administrative curricula involving either longitudinal or discrete 4 week rotations. We sought to create an evidence based leadership and administrative experience based on the CanMEDS roles. We adapted components of pre-existing rotations from other universities and selected competencies from Thoma et al in order to compile a list of objectives. This was coupled with a reading list, various departmental, hospital, and regional meetings, a physician leadership training seminar, a departmental presentation, and a leadership project. **Curriculum, Tool, or Material:** The curriculum involved 4 weeks combining 8 emergency department (ED) clinical shifts with a leadership and administration component. The latter involved clinical interdepartmental meetings, a hospital medical advisory council (MAC) meeting, a provincial medical directors meeting, a health authority MAC meeting, and taking part in planning for an ED quality improvement initiative focused on triage. Attendance at a 2-day physician administrator leadership training seminar was also included. The reading list included books on leadership and references to ED quality improvement. In addition, exposure to a B.C. Ministry of

Health document entitled, "Setting Priorities for the Health Care System," the KGH Medical Staff Rules, and the B.C. Health Quality Matrix occurred. A summary presentation to the full ED on change management and leadership in residency occurred at completion. **Conclusion:** This innovative leadership and administration elective was the culmination of a need to see more formal post graduate leadership training in residency. The rotation was based on the CanMEDS framework, particularly the "leader" competency, and was based on recent evidence regarding leadership and administration competencies in emergency medicine. We hope this serves as a potential model for other rotation based electives or core rotations that desire to blend leadership competencies with clinical emergency medicine.
Keywords: education, leadership, administration

P016

Low risk ankle rule, high reward-a quality improvement initiative to reduce ankle x-rays in the pediatric emergency department

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Introduction: Our tertiary care institution embarked on the Choosing Wisely campaign to reduce unnecessary testing, and selected the reduction of ankle x-rays as part of its top five priority initiatives. The Low Risk Ankle Rule (LRAR), an evidence-based decision rule, has been derived and validated to clinically evaluate ankle injuries which do not require radiography. The LRAR, is cost-effective, has 100% sensitivity for clinically important ankle injuries and reduces ankle imaging rates by 30-60% in both academic and community setting. Our objective was to significantly reduce the proportion of ankle x-rays ordered for acute ankle injuries presenting to our pediatric Emergency Department (ED). **Methods:** Medical records were reviewed for all patients presenting to our tertiary care pediatric ED (ages 3- 18 years) with an isolated acute ankle injury from Jan 1, 2016-Sept 30, 2016. Children with outside imaging, an injury that occurred >72 hours prior, or those who had a repeat ED visit for same injury were excluded. Quality improvement (QI) initiatives included multidisciplinary staff education about the LRAR, posters placed within the ED highlighting the LRAR, development of a new diagnostic imaging requisition for ankle x-rays requiring use of the LRAR and collaboration with the Division of Radiology to ensure compliance with new requisition. The proportion of patients presenting to the ED with acute ankle injuries who received x-rays was measured. ED length of stay (LOS), return visits to the ED and orthopedic referrals were collected as balancing measures. **Results:** At baseline 88% of patients with acute ankle injuries received x-rays. Following our multiple interventions, the proportion of x-rays decreased significantly to 54%, ($p < 0.001$). This decrease in x-ray rate was not associated with an increase in ED LOS, ED return visits or orthopedic referrals. There was an increase uptake of the dedicated x-ray requisition over time to 71%. **Conclusion:** This QI initiative to increase uptake of the LRAR, resulted in a significant reduction of ankle x-rays rates for children presenting with acute ankle injuries in our pediatric ED without increasing LOS, return visits or need for orthopedic referrals for missed injuries. Just as in the derivation and validation studies, the reductions have been sustained and reduced unnecessary testing and ionizing radiation.
Keywords: quality improvement, decision rules, ankle imaging

P017

A time-driven activity-based costing method to estimate health care costs in the emergency department

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Introduction: Poor physicians' knowledge of health care costs has been identified as an important barrier to improving efficiency and reducing overuse in care delivery. Moreover, costs of tests and treatments estimated with traditional costing methods have been shown to be imprecise and unreliable. We estimated the cost of frequent care activities in the emergency department (ED) using the time-driven activity-based costing (TDABC) method. **Methods:** We conducted a TDABC study in the ED of the CHUL, Québec city (77000 visits/year). We estimated the cost of all potential care activities (e.g. triage) provided to adult patients with selected urgent (e.g. pulmonary sepsis) and non urgent (e.g. urinary tract infection) conditions frequently encountered in the ED. Following Lean management principles, process maps were developed by a group of ED care providers for each care activity to identify human resources, supplies and equipment involved, and to estimate the time required to complete each process. Resource unit cost (e.g. cost per minute of a nurse) and overhead rate were calculated using financial information from fiscal year 2015-16. Estimated cost of each care activity (e.g. chest X-ray) including physicians' charges was calculated by summing overhead allocation and the cost of each process (e.g. disinfection of the X-ray machine) as obtained by multiplying the resource unit cost by the time for process completion. **Results:** Process maps were developed for 14 conditions and 68 ED care activities. We estimated the costs of activities (CAN$) related to nursing (e.g. urinalysis and culture triage ordering $14.70), clerk tasks (e.g. patient registration $3.40), physicians (e.g. FAST scan $20.90), laboratory testing (e.g. CBC $6.30), diagnostic imaging (e.g. abdominal CT scan $146.50), therapy (e.g. 5 mg of iv morphine $20.40), and resuscitation (rapid sequence intubation with ketamine and succinylcholine $146.40). Overall, emergency physicians' charges, personnel salaries and overheads accounted for 38%, 22% and 16% of all ED care costs, respectively. **Conclusion:** Our results represent an important step toward increasing emergency physicians' awareness on the real cost of their interventions and empowering them to adopt more cost-effective practice patterns.
Keywords: activity-based costing, efficiency, performance

P018

Prehospital diversion of mental health patients to a mental health center vs the emergency department: safety and compliance of an EMS direct transport protocol

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Introduction: Prehospital transport of patients to an alternative destination (diversion) has been proposed as part of a solution to overcrowding in emergency departments (ED). We evaluated compliance and safety of an EMS protocol allowing paramedics to transport medically stable patients with psychiatric issues directly to an alternate facility [Crisis Intervention (CI)], bypassing the ED. Patients were eligible for diversion if they were ≥18 years old, classified as CTAS III-IV, scored <4 on the Prehospital Early Warning (PHEW) score, and did not have any vital sign parameters in a danger zone (as per PHEW score criteria). **Methods:** A retrospective analysis was conducted on patients presenting to Sudbury EMS with behavioural or psychiatric issues. Data was abstracted from EMS reports, hospital medical records, and discharge forms from CI. Protocol compliance was measured using missed protocol opportunities (patients eligible for diversion but taken directly to the ED) and protocol noncompliance rates; protocol safety was

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