(ED). Frequent reflection on current practices is required to detect areas in need of improvement. The Ontario Hospital Association (OHA) outlined five 'Leading Practices' (LPs) targeted to increase patient satisfaction in this setting. The ED volunteers are a group of individuals who have unique perspectives on ED practices that are unbiased by confounders affecting patients and staff. The goal of this study was to explore the unique perspectives of ED volunteers involving what they believe will improve the delivery of patient-centered care, as well as to examine to what extent Saskatoon EDs are embracing the principles outlined in the OHA LPs. **Methods**: A two-phase mixed methods approach, with a survey followed by interviews that allowed participants to expand on survey findings was used. The pool of 45 ED volunteers was extended the opportunity to participate resulting in 36 survey responses and 6 interviews. The 13 Likert-grade survey questions were generated to align to each of the LPs and allowed room for qualitative feedback. Interview questions were generated following 15 survey responses to expand on the LPs that were rated below average. **Results**: Analysis of responses identified inefficient ED processes leading to increased waiting times, inefficient patient location, inadequate signage, a lack of physical space, unclean environments, and a lack of staff and volunteer awareness regarding spiritual care and interpreter services, perceptions of received care by patients due to long wait times and level of cultural safety training of ED staff. Themes reduced from interviews yielded common themes such as patient frustration, disorganization, uncomfortable environment, overcrowding, prolonged wait times, and patient misconception of ED processes at Site 1. Themes common to Site 2 included organization, patient-friendly environment, patient misconception of ED processes, and prolonged wait times. Additionally, the volunteers suggested a plethora of interventions that could improve the current processes in Saskatoon's EDs to make them more patient friendly. **Conclusion**: Saskatoon EDs comply reasonably well to the OHA Leading practices. Surveying ED volunteers provides important insight into current practices and areas for improvement, and should be considered at other sites to improve adherence to the OHA LPs.

Keywords: emergency department, quality improvement and patient safety, volunteers

P141

Identifying causes of delay in interfacility transfer of patients by air ambulance

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Introduction: Vast geography and low population density limit availability of specialized trauma and medical care in many areas of Ontario. As such, patients with severe illnesses often require a higher level of care than local facilities can provide and thus require an interfacility transfer to access tertiary or quaternary care. In Ontario, Ornge, a provincially run air ambulance, serves as the sole provider of air-based medical and critical care transport. Patient outcomes are impacted by the time to definitive care, yet little research about reasons for delay in interfacility transfer within Ontario has been conducted. This study aimed to identify causes of delay in interfacility transport by air ambulance in Ontario. **Methods**: Causes of delay were identified by manual chart review of electronic patient care records (ePCR). All emergent adult interfacility transfers for patients transported by Ornge between Jan. 1-Dec. 31, 2016 were eligible for inclusion. Patient records were flagged to be manually reviewed if they met one or more of the following criteria: 1) contained a standardized delay code; 2) the ePCR free text contained "delay", "wait", "duty-out", or common misspellings therein; 3) were above the 75th percentile in total transport time; or 4) were above the 90th percentile in time to patient bedside, time spent at the sending hospital, or time to receiving facility. Each trip was categorized as having delays that fall into one or more of the following categories: time-to-sending delays, in-hospital delays, and time-to-receiving/handover delays. **Results**: Our search strategy identified 1,220 records for manual review and a total of 872 delays were identified. The most common delays cited included aircraft refuelling (234 delays); waiting for land EMS escort (144); and unstable patients requiring advanced care such as intubation, procedures, or transfusion (79). Other delays included handover or delays at the receiving facility (42); mechanical issues (36); dispatch-related issues (53); environmental hazards (43); staffing issues (47); and equipment problems (38). **Conclusion**: Some common causes of interfacility delay are potentially modifiable: better trip planning around refueling, and improved coordination with local EMS could impact many delayed interfacility trips in Ontario. Our analysis was limited by number and completeness of available records, and documentation quality. To better understand causes for delay, we would benefit from improved documentation and record availability.

Keywords: delay, medical transport, prehospital care

P142

Gaps in public preparedness to be a substitute decision maker and the acceptability of high school education on resuscitation and end-of-life care: a mixed-methods study

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Introduction: When a patient is incapable of making medical decisions for themselves, choices are made according to the patient's previously expressed, wishes, values, and beliefs by a substitute decision maker (SDM). While interventions to engage patients in their own advance care planning exist, little is known about public readiness to act as a SDM on behalf of a loved one. This mixed-methods survey aimed to describe attitudes, enablers and barriers to preparedness to act as a SDM, and support for a population-level curriculum on the role of an SDM in end-of-life and resuscitative care. **Methods**: From November 2017 to June 2018, a mixed-methods street intercept survey was conducted in Ottawa, Canada. Descriptive statistics and logistic regression analysis were used to assess predictors of preparedness to be a SDM and understand support for a high school curriculum. Responses to open-ended questions were analyzed using inductive thematic analysis. **Results**: The 430 respondents were mostly female (56.5%) with an average age of 33.9. Although 73.0% of respondents felt prepared to be a SDM, 41.0% of those who reported preparedness never had a meaningful conversation with loved ones about their wishes in critical illness. The only predictors of SDM preparedness were the belief that one would be a future SDM (OR 2.36 95% CI 1.34-4.17), and age 50-64 compared to age 16-17 (OR 7.46 95% CI 1.25-44.51). Thematic enablers of preparedness included an understanding of a patient's wishes, the role of the SDM and strong familial relationships. Barriers included cultural norms, family conflict, and a need for time for high stakes decisions. Most respondents (71.9%) believed that 16 year olds should learn about SDMs. They noted age appropriateness, potential developmental and societal benefit, and improved decision

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making, while cautioning the need for a nuanced approach respectful of different maturity levels, cultures and individual experiences. **Conclusion**: This study reveals a concerning gap between perceived preparedness and actions taken in preparation to be an SDM for loved ones suffering critical illness. The results also highlight the potential role for high school education to address this gap. Future studies should further explore the themes identified to inform development of resources and curricula for improved health literacy in resuscitation and end-of-life care.
Keywords: public education, public health, substitute decision making

P143

A prospective cohort study characterizing 30-day recurrent emergency department visits for hyperglycemia

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Introduction: Hyperglycemic emergencies, including diabetic ketoacidosis (DKA) and hyperosmolar hyperglycemic state (HHS), often recur in patients who have poorly controlled diabetes. Identification of those at risk for recurrent hyperglycemia visits may improve health care delivery and reduce ED utilization for these patients. The objective of this study was to prospectively characterize patients re-presenting to the emergency department (ED) for hyperglycemia within 30 days of an initial ED visit. **Methods**: This is a prospective cohort study of patients ≥18 years presenting to two tertiary care EDs (combined annual census 150,000 visits) with a discharge diagnosis of hyperglycemia, DKA or HHS from Jul 2016-Nov 2018. Trained research personnel collected data from medical records, telephoned patients at 10-14 days after the ED visit for follow-up, and completed an electronic review to determine if patients had a recurrent hyperglycemia visit to any of 11 EDs within our local health integration network within 30 days of the initial visit. Descriptive statistics were used where appropriate to summarize the data. **Results**: 240 patients were enrolled with a mean (SD) age of 53.9 (18.6) years and 126 (52.5%) were male. 77 (32.1%) patients were admitted from their initial ED visit. Of the 237 patients (98.8%) with 30-day data available, 55 (23.2%) had a recurrent ED visit for hyperglycemia within this time period. 21 (8.9%) were admitted on this subsequent visit, with one admission to intensive care and one death within 30 days. For all patients who had a recurrent 30-day hyperglycemia visit, 22/55 (40.0%) reported having outpatient follow-up with a physician for diabetes management within 10-14 days of their index ED visit. 7/21 (33.3%) patients who were admitted on the subsequent visit had received follow-up within the same 10-14 day period. **Conclusion**: This prospective study builds on our previous retrospective work and describes patients who present recurrently for hyperglycemia within 30 days of an index ED visit. Further research will attempt to determine if access to prompt follow-up after discharge can reduce recurrent hyperglycemia visits in patients presenting to the ED.
Keywords: emergency medicine, hyperglycemia, recurrent visits

P144

"I wasn't oriented a lot, so I'm essentially learning as I go": onboarding and transition to practice of new emergency physicians

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Introduction: Transition to the attending physician role and onboarding at a new workplace are often stressful. Effective initiation is important to individuals as well as departments, hospitals and universities wishing to retain valuable staff. Our aim was to learn about early experiences from the perspective of new staff and apply these findings to develop a new onboarding program. **Methods**: Following a pilot study of individual interviews, we surveyed and conducted focus group interviews with all attending physicians who had joined our dual site, urban, academic emergency department within three years. We used a mixed quantitative and qualitative approach to collect and analyze data. We applied the data to develop a new needs-based formal onboarding program. **Results**: 24/36 participated in the survey, 22/36 in focus groups. 95% were 30-39 years old. Newcomers described the existing orientation as too brief, non-specific, and missing essential elements. We identified six onboarding themes: (1)clinical protocols and reference documents, (2)graduated responsibilities, (3)mentorship, (4)relationship building, (5)department structure and culture, and (6)emotions. We formed a committee to develop and implement these initiatives: (1)a new online platform enables easy access to clinical care and orientation documents, (2)a formal mentorship program matches each newcomer with 2 mentors to coach towards goals, navigate department structure and culture, and provide perspective to mitigate strong emotions, (3)adjusting shift and teaching assignments allows newcomers to ease into clinical and academic responsibilities, and (4)our next priority is to improve clarity around academic opportunities, expectations, and advancement. **Conclusion**: New emergency physicians are highly engaged and provided many insights on their orientation experiences. Using mixed methods, we identified six themes to guide the design and implementation of a program to promote successful integration of newcomers.
Keywords: onboarding, transition to practice

P145

Orthomageddon: An epidemiological analysis of weather-dependent mass-casualty incidents in a Canadian city

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Introduction: Unique weather patterns on March 16th, 2017 led to 3 times the number of emergency department (ED) visits due to fall-injuries (FIs) on snow or ice compared to winter averages. The objective of the study was to identify weather-dependent differences in demographics, length-of-stay (LOS) predictors, and volume of ED presentations for winter FIs. We placed emphasis on Chinook phenomenon (rapid freeze-thaw cycles) common east of the Rocky Mountains. **Methods**: Patients with extremity injury due to fall on snow or ice were identified from the Alberta Health Services ED database from November 1st 2013 to March 31st 2018. We conducted regressions, chi-square analysis, bivariate correlations, and t-tests to identify differences in post-Chinook, high-volume, and regular winter patient cohorts. High-volume dates included any date with more than 25 FI presentations, representing a 400% increase from the daily average of 5. **Results**: We identified 3478 patients, with females more likely to present, X2 (1, N = 3480) = 443.266, $p < 0.001$, making up 67.8% of the total cohort. Mean age was 48.2 (SD ± 19.9) in all patients, and 48.4 (SD ± 20.0) among the post-Chinook cohort. Looking at ED LOS in the full patient cohort, age over 65 predicted longer ED LOS (mean = 4.23, SD ± 3.06) compared to younger age groups (mean = 3.42, SD ± 2.39), t(3478) = -7.37, $p < 0.001$]. Patients with

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