

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

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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

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“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

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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, $X^2(1, N = 3480) = 443.266, p < 0.001$, 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