

EHR training and support, the majority of clinicians did not feel adequately trained or confident using Epic and reported moderate to high burnout. These findings will inform optimization efforts and they represent key considerations for other EDs planning future implementations.

Keywords: burnout, electronic health records, health informatics

P047

Emergency department practice patterns of UTI investigation among the delirious elderly: a retrospective chart review

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Introduction: Delirium is a common emergency department (ED) presentation in elderly patients. Urinary tract infection (UTI) investigation and treatment are often initiated in delirious patients in the absence of specific urinary symptoms, despite a paucity of evidence to support this practice. The purpose of this study is to describe the prevalence of UTI investigation, diagnosis and treatment in delirious elderly patients in the ED. **Methods:** We performed a retrospective chart review of elderly patients presenting to the ED at The Ottawa Hospital between January 15-July 30, 2018 with a chief complaint of confusion or similar. Exclusion criteria were pre-existing and current UTI diagnosis, Glasgow Coma Scale <13, current indwelling catheter or nephrostomy tube, transfers between hospitals, and leaving without being seen. The primary outcome was the proportion of patients for whom urine tests (urinalysis or culture) or antibiotic treatment were ordered. Secondary outcomes were associations between patient characteristics, rates of UTI investigation, and patient outcomes. Descriptive values were reported as proportions with exact binomial confidence intervals for categorical variables and means with standard deviations for continuous variables. Comparisons were conducted with Fischer's exact test for categorical variables and t-tests for continuous variables. **Results:** After analysis of 1039 encounters with 961 distinct patients, 499 encounters were included. Urine tests were conducted in 324 patients (64.9% [60.6-69.1]) and antibiotics were prescribed to 176 (35.2% [31.1-39.6]). Overall 57 patients (11.4% [8.8-14.5]) were diagnosed with UTI, of which only 12 (21.1% [11.4-33.9]) had any specific urinary symptom. For those patients who had no urinary symptoms or other obvious indication for antibiotics (n = 342), 199 (58.2% [52.8-63.5]) received urine tests and 62 (18.1% [14.2-22.6]) received antibiotics. Patients who received urine tests were older (82.4 ± 8.8 vs. 78.3 ± 8.4 years, p < 0.001) but did not differ in sex distribution from those than those who did not. Additionally, patients who received antibiotics were more likely to be admitted (OR = 2.6 [1.48-4.73]) and had higher mortality at 30 days (OR = 4.2 [1.35-12.91]) and 6 months (OR = 3.2 [1.33-7.84]) than those who did not. **Conclusion:** Delirious patient without urinary symptoms in the ED were frequently investigated and treated for UTI despite a lack of evidence regarding whether this practice is beneficial.

Keywords: delirium, practice patterns, urinary tract infection

P048

Brief online educational intervention improves emergency physicians' and general surgeon's ability to interpret focused gallbladder ultrasound

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Introduction: Biliary colic is a frequent cause for emergency department visits. Ultrasound is the initial test of choice for gallstone disease. We evaluated the effectiveness of a brief online educational module aimed to improve Emergency Physicians' (EP) and General Surgeons' (GS) accuracy in interpreting gallbladder ultrasound. **Methods:** EPs and GSs (resident/fellow and attending) from a single academic tertiary care hospital were invited to participate in a pre- and post- assessment of the interpretation of gallbladder ultrasound. Demographic information was obtained in a standardized survey. All questions developed for the pre- and post- assessment were reviewed for content and clarity by 3 EP and GS experts. Participants were asked 22 multiple-choice questions and then directed to a 7-minute video-tutorial on gallbladder ultrasound interpretation. After a 3-week period, participants then completed a post-intervention assessment. Following pre- and post- assessment, participants were surveyed on their confidence in gallbladder ultrasound interpretation. Data was analyzed using descriptive statistics and paired t-test. **Results:** The overall response rate of the pre-intervention was 50.9% (116/228) and 40.8% (93/228) for the post-intervention. In pre-intervention assessment, 27.7% of participants reported they were "not at all confident" in interpreting gallbladder ultrasound. This contrasted with post-intervention confidence level, where only minority (7.8%) reported "not at all confident". There was a significant increase from the pre- to post- intervention (75.7% to 85.4%; p < 0.01) in correct interpretations. The greatest improvement was seen in those with previous experience interpreting gallbladder ultrasound (from 79.6% to 91.1%; p < 0.01). EPs scored significantly higher than GSs in the pre-intervention (EPs 78.2% compared to GSs 71.0%; p < 0.01). This trend was also observed in post-intervention, although the difference was no longer significant (EPs 88.9% compared to GSs 82.8%; p = 0.05). There was no significant difference in performance between residents/fellows compared to attendings. **Conclusion:** This brief, online intervention improved the accuracy of EPs' and GSs' interpretation of gallbladder ultrasound. This is an easily accessible tutorial that can be used as part of a comprehensive ultrasound educational program. Further studies are required to determine if EPs' and GSs' interpretations of gallbladder ultrasound impacts patient-oriented outcomes.

Keywords: cholecystitis, gallstone complication, point-of-care ultrasound

P049

Goals of care discussion in the emergency department: is it possible

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Introduction: The Institut national d'excellence en santé et en services sociaux in Quebec published guidelines suggesting that emergency physicians should establish emergency department (ED) patients' goals of care when appropriate. The objective of this study was to explore emergency physicians' opinions about leading goals of care discussion (GCD) in their daily practice. **Methods:** This study used a qualitative design based on the Normalisation Process Theory (NPT); a middle-range theory used to explain the sustainability of implementing complex healthcare interventions. It was conducted in a single academic ED in Lévis, Québec. We planned to recruit a minimal convenience sample of 10 participants. Between April and May 2018, we conducted semi-structured interviews and

transcribed the audio records verbatim. Deductive thematic analysis based on the NPT was conducted using Nvivo 12.0. Two authors codified the content of each interview under the four NPT macro-level constructs: coherence, cognitive participation, collective action and reflexive monitoring. A kappa score was calculated to measure the coding inter-rater reliability. **Results:** We interviewed 10 ED physicians (50 % women; 60% certified by the College of Family Physicians of Canada (Emergency Medicine)). No new ideas emerged after the 9th interview. Our thematic analysis identified 13 themes. Inter-rater reliability of coding was substantial ($\kappa = 0.72$). The coherence construct contained the following themes: common concept of interpersonal communication, efficiency of care and anxiety generated by the discussion, the identification of an acute deterioration leading to the GCD, coming together of clinician, patient and family, and the importance of knowing patients' goals of care before medical handover. The cognitive participation construct involved the following themes: lack of training on the new goals of care form and availability of reminders to promote the recommendation. One theme characterized the collective action construct: heterogeneous prioritization for leading GCD. The reflexive monitoring construct contained 4 themes: need to take action before patients consult in the ED, need to develop education programs, need for legislation and the impossibility of systematic GCD for all patients. **Conclusion:** Goals of care discussion is possible and essential with selected patients in the ED. Nevertheless, policy-making efforts remain necessary to ensure the systematization of the recommendation.

Keywords: advanced care planning, emergency medicine, goals of care discussion

P050

The Northern Amazing and Awesome Model: Using positive deviance to impact patient care

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Introduction: Positive deviance recognizes that there are individuals and teams within our community of practice that succeed in spite of system constraints. Amazing and awesome rounds has been proposed as a forum to identify behaviours and processes that lead to exceptional results. The objective of this study was to determine the feasibility and acceptability of a structured amazing and awesome rounds model through an innovative educational intervention. **Methods:** The authors engaged a broad range of professional designations (physicians, surgeons, nurses, respiratory therapists, administrative staff) at a tertiary care institution. A&A rounds were open to all allied health professionals and administrative staff. The Northern A&A rounds model was developed, implemented, and then evaluated as a four-part intervention. This consisted of: 1) Allied health professional training on case selection and analysis, 2) Engaging inter professional members, 3) disseminating lessons learned, and 4) creating an administrative pathway for acting on issues identified through the A&A rounds. The measures of intervention feasibility included the proportion of sessions adherent to the new model and A&A rounds attendance. Post intervention surveys of presenters and attendees were used to determine intervention acceptability. A&A presentation content was reviewed to determine the most frequently adopted components of the model. **Results:** Nine out of 9(100%) of presented cases were adherent to the three components of the Northern A&A Model. A&A rounds were highest attended of all hospital wide grand

rounds ($N = 75$ SD 2.4 $P < 0.001$). Nine case presentations were analyzed and 7 action items were identified for amplification across the hospital. Including 3 case reports published of a novel approach to a patient case, a rapid referral for trauma patients at risk for PTSD, AED placement in all community clinics and routine debrief after resuscitations. Presenters included a broad representation of hospital staff including surgeons, emergency physicians, radiologists, nurses, and administrators. **Conclusion:** The Northern A&A Model was a feasible intervention that was perceived to be effective by both presenters and attendees. The authors believe that this could be readily applied to any hospital seeking to enhance quality of care and patient safety.

Keywords: quality improvement

P051

A chart review of emergency department visits following implementation of the Cannabis Act in Canada

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Introduction: The legalization of cannabis for recreational use in 2018 remains a controversial topic. There are multiple perceived benefits of cannabis including pain relief, treatment of epilepsy syndromes, and improving body weight of cancer patients. However, there are also many potential risks. The short-term health consequences include cannabinoid hyperemesis syndrome and cannabis induced psychosis. These conditions directly impact the influx of patients presenting to Emergency Departments (ED). There is currently limited research in the area of cannabis legalization burden. However, the studies performed have shown a significant impact in those states which cannabis is legal. A study completed in Colorado found that hospitalization rates with marijuana related billing codes increased from 274 to 593 per 100 000 hospitalizations after the state legalization of recreational cannabis. This study aims to examine if Canada's hospitals are experiencing the same burden as other jurisdictions. **Methods:** A descriptive study was performed via a retrospective chart review of cannabis related visits in tertiary EDs in St. John's, NL, from six months prior to the date of legalization of cannabis for recreational use, to six months after. Hospital ED visit records from both the Health Science Centre and St. Clare's Mercy Hospital were searched using keywords to identify patients who presented with symptoms related to cannabis use. We manually reviewed all visit records that included one or more of these terms to distinguish true positives from false positive cases, unrelated to cannabis use. **Results:** A total of 287 charts were included in the study; 123 visits were related to cannabis use six months prior to legalization, and 164 six months after legalization. A significant increase in ED visits following the legalization of recreational cannabis was seen ($p < .001$). There was no significant difference in the age of users between the two groups. Additionally, the number one presenting complaint due to cannabis use was vomiting (47.7%), followed by anxiety (12.2%). **Conclusion:** Following the implementation of the Cannabis Act in Canada, EDs in St. John's, NL had a statistically significant increase in the number of visits related to cannabis use. It is important to determine such consequences to ensure hospitals and public health agencies are prepared to treat the influx of visits and are better equipped to manage the associated symptoms.

Keywords: cannabis, emergency department, legalization