

Appraisal Tool (MMAT). All discrepancies were resolved through consensus. A qualitative approach was used to categorize the context and characteristics of the identified strategies and interventions. **Results:** Our search strategy yielded 3883 results. After screening titles and abstracts, 173 studies underwent full text screening. Extracted data reflected 21 interventions categorized as providing peer-support (n = 7), proactive education (n = 7) or both (n = 7). Programs came from Canada (n = 2), Spain (n = 2), and United States (n = 17). Specific traumatic events were described as the trigger for development of five programs. While some programs were confined to a standard definition of second victim as a healthcare provider traumatized by an “unanticipated adverse patient event” (n = 6), other programs had a broader scope (n = 12) including situations such as non-accidental trauma, stressful anticipated patient events and complaints/litigation (3 programs were unclear about the definition). Confidentiality was assured in nine peer support programs. Outcome measures were often not reported and were limited in terms of quality. **Conclusion:** This is a new area of study with little scientific rigour from which to determine whether these programs are effective. Concerns about protecting healthcare providers from potential legal proceedings hinder documentation and study of program effectiveness. **Keywords:** peer support, second victim

P135

TriagED: A serious game for mass casualty triage and field disaster management

C. Wallner, BSc, MD, MCR, P. Sneath, K. Morgan, T. Chan, McMaster University, Hamilton, ON

Innovation Concept: Mass Casualty Incidents (MCI) are complex events that most paramedics encounter only a few times in their careers. Triage and managing multiple patients during an incident requires different skills than typically practiced by prehospital providers. Simulation and drills can provide an opportunity to practice those skills, but are costly and resource intensive while only allowing a few providers to be in a triage or leadership role. It is important to find engaging and less expensive methods for teaching MCI triage and initial scene management. **Methods:** The authors have developed and are testing a card game based on the previously published GridlockED board game. The game was developed utilizing an iterative process previously described. This game was tested with paramedics as well as other emergency medicine learners to determine usability, engagement, fidelity, as well as usefulness in teaching MCI triage and patient-flow concepts. **Curriculum, Tool or Material:** The card game provides a focused learning experience to allow providers to practice initial triage of multiple injured patients as well as manage patient flow from the scene to area hospitals when faced with limited prehospital resources and capabilities. Players work together in various simulated scenarios to correctly triage injured patients and send them to the correct healthcare facility. **Conclusion:** Serious gaming has gained momentum in medical education. Developing novel curriculae around low frequency, high stakes situations using a game like TriagED may hold the key to ensure prehospital care providers are trained for these incidents. In the future, games which integrate an element of Incident Command or receiving hospitals (e.g. full integration with GridlockED game) may help to further explore the relationship between scene management and patient flow within receiving hospitals.

Keywords: innovations in EM education, mass casualty triage, serious gaming

P136

Increasing access to computed tomography scanning in the emergency department and its effect on patient outcomes

M. Watson, BSc, MD, C. Richard, BSc, N. Fortino, BSc, MD, T. Lyon, BSc, MD, R. Ohle, BA, MD, Northern Ontario School of Medicine, Sudbury, ON

Background: There is growing concern about emergency physicians overuse of computed tomography (CT). In an attempt to ensure appropriate ordering many hospitals implement strict protocols for ordering of CT scans in the emergency department (ED) that include approval of all scans by a board-certified radiologist, and a reduced access to CT overnight. **Aim Statement:** The aim of this study is to review the impact of RAD ED – direct access to CT ordering by ED physicians, 24hr CT technologist and third-party reporting on CT scans overnight. Our objectives were to assess the effect on; 1) ED length of stay, 2) number of CT scans ordered and 3) admission rates. **Measures & Design:** We conducted a prospective pilot before & after study at a single tertiary-care emergency department between February 1st, 2018 and July 31st, 2018. Inclusion criteria were adult patients presenting to the emergency department and undergoing CT for any of the following: face, neck, spine, upper and lower extremities, chest, abdomen and pelvis. Exclusion criteria were those undergoing CT head for stroke or trauma. **Evaluation/Results:** A total of 924 patients met our criteria, 352 before and 568 after implementation. Comparison of the patient populations demonstrate very similar characteristics in both groups; (49% male, average age 56 years, CTAS 2(40%) and 3(47%). Results demonstrate that an additional 216 scans were performed in post-implementation group. This equates to an increase of 61%. ED length of stay averaged 5.6 hours pre-implementation and 4.7 hours post-implementation. This corresponds to a significant reduction in length of stay of approximately 0.9 hours ($p < 0.01$). Collection is currently ongoing for factors that we will adjust for a multivariate analysis, including admission rates. **Discussion/Impact:** RAD ED led to a significant increase in CT ordering and decrease in ED length of stay. We believe that this project provides important information to clinicians and patients with regards to overall CT utilization, ED wait times, follow up visits for CT scanning and admission rates. It is also important for administrators to help decide if these new rules are leading to improved efficiency, and to help estimate their financial impact.

Keywords: computed, quality improvement and patient safety, tomography

P137

Methods for teaching managerial skills in the emergency department: a survey of Canadian educators

A. Chorley, MD, A. Welsler, MSc, A. Pardhan, MBA, MD, T. Chan, MD, MHPE, McMaster University, Hamilton, ON

Introduction: Emergency department (ED) crowding and increased patient load has been shown to have an impact on physician decision making and patient mortality. As the volumes in Canadian EDs increase, so does the need to effectively prepare new learners for the challenges ahead. This study aims to determine which level of training varying teaching techniques should be employed to educate Emergency Medicine (EM) residents about ED management and flow in the age of competency based medical education. **Methods:** We designed a survey that contained a previously derived list of ED flow and management teaching strategies. We piloted and edited

the survey based on feedback from operations and educational experts. A total of 21 teaching techniques were included in the final survey ranging from didactic teaching sessions to experiential techniques such as residents running the department with supervision. Then, we invited members of the Royal College of Physicians and Surgeons of Canada EM specialty committee, the Canadian Association of Emergency Physicians Education Scholarship Section, and the Canadian EM Simulation Educators Collaborative to participate in our survey. We analysed the results using simple descriptive statistics. **Results:** A total of 21 EM (38% female, 62% male) educators from 11 programs (78% of Royal College Training sites) responded to the survey, representing 7/10 provinces, with a mean years-in-practice of 15.2 years (SD 9.7). All respondents were involved in resident education; 66% had a current formal educational role, such as Program Director. Results showed a universal trend towards teaching flow and management skills later in residency. Participants endorsed 35.93% of teaching strategies for the “Core of discipline” and 39.65% for the “Transition to practice” stages of training. Didactic and observational techniques were occasionally considered acceptable at earlier training stages, whereas experiential teaching techniques were skewed towards the later stages of residency. **Conclusion:** EM educators from across Canada believe that most teaching techniques for flow are better suited for the later stages of residency training, with didactic techniques more suitable earlier on. This work will inform faculty development on managerial/leadership skills teaching in the ED.

Keywords: clinical teaching, competency-based medical education, patient flow

P138

Management of opioid withdrawal: A qualitative examination of current practices and barriers to prescribing buprenorphine in a Canadian emergency department

D. Wiercigroch, BSc, P. Hoyeck, BSc, H. Sheikh, MD, J. Hulme, MDCM, MPH, University of Toronto, Toronto, ON

Introduction: The opioid crisis persists, and in the context of this urgency and new practice guidelines, the practice of buprenorphine (BUP) prescription is expanding across Canadian emergency departments (EDs). The objective of this study was to identify current knowledge, attitudes and behaviours to managing opioid use disorder (OUD) in the ED, including barriers and facilitators to prescribing BUP. **Methods:** Forty ED staff physicians were randomly invited to participate from an urban Toronto ED which recently received continuing medical education in addictions, and whose hospital established an addictions follow-up clinic. Individual semi-structured interviews with the 19 physicians who self-selected to participate were grounded in phenomenology, allowing for in-depth accounts of participants’ lived experience and viewpoints on their role in addressing OUD. Thematic analysis was achieved through multiple readings; themes were coded using Dedoose software by two researchers. Themes were further organized as facilitators, barriers, and proposed solutions. **Results:** Opioid withdrawal management in the ED varied significantly between these practitioners in the same practice group. Facilitators to treating withdrawal and initiating BUP in the ED were rooted in three contributors to physician empowerment: knowledge about OUD and BUP, positive patient and provider experience with substitution therapy in the past, and exposure to physician champions to guide their practice. Systems-level facilitators included timely access to follow-up care and an available order set. Barriers included provider inexperience: missing subtle presentations of withdrawal, lacking feedback on treatment effectiveness, and reported

uncertainty about the protocol from nursing staff. The ED environment also limits time to counsel effectively and discourages taking up a bed both to wait for withdrawal onset and for BUP induction. Other barriers were concerns about precipitating withdrawal, prescribing a chronic medication in acute care, and patient attitudes. **Conclusion:** This is the first study describing barriers and facilitators to addressing OUD and prescribing BUP in the ED. These findings suggest a role for home induction, involvement of allied health professionals in BUP counseling, and heightened continuing medical education. Results will inform departmental efforts across Canada to implement BUP prescribing as standard of care for patients in opioid withdrawal.

Keywords: buprenorphine, opioid, withdrawal

P139

The use of simulation in emergency medicine UGME clerkship education: A quality improvement initiative

D. Karol, BSc, S. Wilson, BSc, C. Elliott, MD, PhD, K. Chen, MD, University of Ottawa, Faculty of Medicine, Ottawa, ON

Introduction: Simulation is becoming widely adopted across medical disciplines and by different medical professionals. For medical students, emergency medicine simulation has been shown to increase knowledge, confidence and satisfaction. At the University of Ottawa Skills and Simulation Centre, third-year medical students participate in simulated scenarios common to Emergency Medicine (EM) as part of their mandatory EM clerkship rotation. This study aims to evaluate simulation as part of the EM clerkship rotation by assessing changes in student confidence following a simulation session. **Methods:** In groups of seven, third year medical students at the University of Ottawa completed simulation sessions of the following: Status Asthmaticus, Status Epilepticus, Urosepsis and Breaking Bad News. Student confidence with each topic was assessed before and after simulation with a written survey. Confidence scores pre- and post-simulation were compared with the Wilcoxon signed rank test. **Results:** Forty-eight third years medical students in their core EM clerkship rotation, between September 2017 and August 2018 participated in this study. Medical student confidence with diagnosis of status asthmaticus (N = 44, p = 0.0449) and status epilepticus (N = 45, p = 0.0011) increased significantly following simulation, whereas confidence with diagnosis of urosepsis was unchanged (N = 45, p = 0.0871). Treatment confidence increased significantly for status asthmaticus (N = 47, p = 0.0009), status epilepticus (N = 48, p = 0.0005) and urosepsis (N = 48, p < 0.0001). Confidence for breaking bad news was not significantly changed after simulation (N = 47, p = 0.0689). **Conclusion:** Simulation training in our EM clerkship rotation significantly increased the confidence of medical students for certain common EM presentations, but not for all. Further work will aim to understand why some simulation scenarios did not improve confidence, and look to improve existing scenarios.

Keywords: clerkship, simulation, undergraduate medical education

P140

Investigating volunteer perspectives on leading patient-centred practices in the emergency department

L. Witt, BSc, T. Oyedokun, MBChB, MMed, D. Goodridge, BN, PhD, J. Stempien, MD, T. Graham, BSc, PhD, University of Saskatchewan, Saskatoon, SK

Introduction: Patient satisfaction is an essential component of effective delivery of quality care in the emergency department