receive training, as well as relative to the intervention groups own pre intervention values (both with p values below 0.05 using Mann-Whitney tests and an intention to treat analysis for loss to follow up). **Conclusion:** Our study demonstrated a significant improvement in CPR quality as a result of our intervention. Survey data also indicated positive feedback from participants in relation to comfort with in-hospital CPR. As such we intend to continue to run this program, identifying participants each year whom can move into training and leadership roles to help foster CPR and basic resuscitation in our medical community.

Keywords: innovations in emergency medicine education, near-peer, cardiopulmonary resuscitation

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Cannabis hyperemesis syndrome within emergency department users in the Calgary health region: a retrospective analysis

N. G. Packer, MD, MSc, A. D. McRae, MD, PhD, D. Wang, MSc, University of Calgary, Calgary, AB

Introduction: Cannabis hyperemesis syndrome (CHS) is associated with long-term, regular use of marijuana. CHS patients typically present to emergency departments (ED) during a hyper-emetic phase of paroxysmal nausea and vomiting. Despite extensive investigations as well as frequent ED presentations, CHS patients have a delayed time to diagnosis, and many are often missed. To date, there is a paucity of research examining CHS in emergency departments. Our objective was to identify CHS cases presenting to EDs within the Calgary health region, and to quantify the number of patients and frequency of ED visits for CHS. **Methods:** A retrospective chart review was performed on all patients who presented to any Calgary ED or urgent care center between January 1, 2015 and December 31, 2016 (ages 18 55 years) who had an ED discharge diagnosis of either nausea or vomiting alone, nausea with vomiting, or poisoning by cannabis, as identified in administrative data. Data abstraction from medical records was performed by trained personnel using standardized forms with comprehensive inclusion criteria for CHS. **Results:** The search strategy yielded a total of 320 ED visits from 156 individual patients. 55% of visits were by males, and 45% by females. The average age was 29.5 years. Of the 156 patients, 53% had cannabis use documented in the chart, with 51% reporting daily and/or regular cannabis use. Relief of symptoms from use of hot showers (a pathognomonic finding) was found in 17% of patients. 18% of patients (n = 28) met criteria for CHS, and 28% (n = 44) met partial criteria for CHS (having documented regular cannabis use, cyclic vomiting and abdominal pain) but no record of symptom resolution with cessation of cannabis use or from the use of hot showers. Patients meeting CHS criteria had an average of five repeat ED visits during the study period with 16% (n = 12) of ED visits resulting in hospital admission. **Conclusion:** We identified a large cohort of patients with confirmed or suspected CHS. Given that nearly one third of the sample met partial criteria for CHS highlights the need for improved patient screening, as it is possible that this cohort may include missed cases. Further, many CHS patients are not responsive to first-line antiemetics and accurate diagnosis is crucial for managing these patients effectively in the ED. This is of particular importance given the admission rate for CHS and resulting burden on the health system.

Keywords: cannabis hyperemesis syndrome, cannabis, vomiting

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Education innovation: pediatric emergencies curriculum for emergency physicians

K. Pardhan, MD, R. Clark, MBBS, C. Filipowska, MB, BCh, BAO, MSc, W. Thomas-Boaz, MN, M. Hillier, MD, M. Romano, MD, N. Farkhani, MD, K. Anchala, MD, MS, Z. Alsharafi, MD, Sunnybrook Health Sciences Centre and McMaster Children's Hospital, Toronto, ON

Introduction: Tertiary care emergency departments (EDs) in large urban environments may have a low volume of high acuity pediatric presentations due to their proximity to dedicated childrens hospitals or large community centres. This may lead to discomfort among emergency physicians (EPs) and registered nurses (RNs) in managing these patients and a waning of knowledge and skills for this unique population. Among the EP group at our institution, 68% indicated they managed pediatric patients in less than 25% of their shifts, 68% also indicated they were uncomfortable managing an undifferentiated critically unwell neonate and only 32% indicated they would be comfortable teaching pediatric topics to emergency medicine residents. At our institution, our innovation was to create a useful curriculum for certified EPs and RNs to improve the interdisciplinary teams comfort level, knowledge and skill set when managing pediatric emergencies. **Methods:** A needs assessment was undertaken of the EPs and RNs working in our centre. This information was used to develop intended learning outcomes in a collaborative manner with the clinical nursing educator and physician curriculum leads. The team further collaborated with the local simulation centre and a pediatric emergency physician from the local childrens hospital. **Results:** A one-year, three-module curriculum was developed to cover the areas felt to be highest yield by the EP group: febrile illness, respiratory disease and critically ill neonates and infants. Each module contains three components: an in person interactive lecture delivered by an EP who routinely manages pediatric patients, either at a childrens hospital or large community centre; an online component with e-mail blasts of high yield pediatric content; and, culminating in an interdisciplinary interdepartmental simulation held in situ. This latter is particularly important so that all members of the interdisciplinary team can practice finding and using equipment based on its actual location within the ED. Each component of each module is then evaluated by the participants to ensure improvement for subsequent delivery. **Conclusion:** Well delivered continuing professional development (CPD) will become increasingly important as competence by design becomes the model for maintenance of certification. Maintaining skills for pediatric patients is an important component of CPD for physicians working in general emergency departments that see a low volume of high acuity pediatric presentations. Our curriculum seeks to address this identified need in an innovative manner using a modular and interdisciplinary approach with a diversity of teaching methods to appeal to the learning styles among our health care team.

Keywords: innovations in emergency medicine education, pediatric emergency medicine, continuing professional development

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A prospective cohort study to evaluate sex differences in presentations and management for patients presenting to emergency departments with atrial fibrillation and flutter

B. H. Rowe, MD, MSc, S. Patrick, P. Duke, MC, K. Lobay, MD, MBA, M. Haager, MD, B. Deane, MD, C. Villa-Roel, MD, PhD, M. Nabipoor, PhD, University of Ottawa, Edmonton, AB

Introduction: Atrial fibrillation and flutter (AFF) represent the most common arrhythmia presentations to emergency departments (EDs). Some research suggests that women with AFF experience different symptoms, receive different treatment and have worse outcomes than men. This study explored sex differences in risk factors, medication, and outcomes before and after ED visits for acute AFF. **Methods:** Adult patients presenting to the one of three hospitals affiliated with the

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