following each POCUS scan and the post-reduction radiograph. **Results:** There were 131 patients with 132 distal radius fractures. Twelve cases were excluded prior to analysis. There was no significant difference in the assessment scores for reduction success by PoCUS vs. clinical assessment (Median scores 4 vs.4; $p = 0.370$;) or in the odds ratio of successful reduction (0.89; 95% CI 0.46 to 1.72; $p = 0.87$). Significantly fewer cases fell in the uncertain category with POCUS than with clinical assessment (12 vs 2; $p = 0.008$). Repeat reduction was performed in 49 patients (41.2%). In this group, the odds ratio for adequate reduction assessment post-PoCUS to pre-PoCUS was 12.5 (95% CI 3.42 to 45.7; $p < 0.0001$). There was no significant difference in the assessment of reduction by PoCUS vs. radiograph. **Conclusion:** PoCUS guided fracture reduction leads to repeat reduction attempts in approximately 40% of cases, and enhances certainty regarding reduction adequacy when clinical assessment is unclear.
Keywords: point-of-care ultrasound (PoCUS), fracture, reduction

LO063

Adverse events in a pediatric emergency department: a prospective, cohort study

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Introduction: Data regarding adverse events (AEs) (unintended harm to a patient related to health care provided) among children treated in the emergency department (ED) have not been collected despite identification of the setting and population as high risk. The objective of our study was to estimate the risk and type of AEs, as well as their preventability and severity, for children seen in a pediatric ED. **Methods:** This prospective cohort study examined outcomes of patients presenting to a paediatric ED. Research assistants (RA) recruited patients < 18 yrs old during 28 randomized 8-hr shifts (over 1 yr). Exclusion criteria included unavailability for follow-up and insurmountable language barrier. RAs collected demographics, medical history, ED course, and systems level data. A RA administered a structured telephone interview to all patients at day 7, 14, and 21 to identify flagged outcomes (such as repeat ED visits, worsening/new symptoms, etc). Admitted patients' health records were screened with a validated trigger tool. A RA created narrative summaries for patients with flagged outcomes/triggers. Three ED physicians independently reviewed summaries to determine if an AE occurred. Primary outcome was the proportion of patients with an AE within 3 weeks of their ED visit. **Results:** We enrolled 1367 (70.3%) of 1945 eligible patients. Median age was 4.3 yrs (range 2 months-17.95 yrs); 676 (49.5%) were female. Most (n = 1279; 93.9%) were discharged. Top entrance complaints were fever (n = 206,15.1%), cough (n = 135, 9.9%), and difficulty breathing (n = 108, 7.9%). Eight eighty (6.5%) patients were triaged as CTAS 1 or 2, 689 (50.6%) as CTAS 3, and 585 (42.9%) as CTAS 4 or 5. Only 44 (3.2%) were lost to follow-up. Flagged outcomes/triggers were identified for 498 (36.4%) patients. Thirty three (2.4%) patients suffered at least one AE within 3 weeks of ED visit; 30 (90.9%) AEs were related to ED care. Most AEs (n = 28; 84.8%) were preventable. Management (n = 18, 54.5%) and diagnostic issues (n = 15, 45.5%) were the most common AE types. The most frequent clinical consequences were need for medical intervention (n = 15;45.5%) and another ED visit (n = 13,39.4%). In univariate analysis, age ($p = 0.005$) and weekday presentation ($p = 0.02$) were associated with AEs. **Conclusion:** We found a lower risk of AEs than that reported among inpatient paediatric and adult ED studies utilizing similar methodology. A high proportion of AEs were preventable.
Keywords: pediatrics, adverse events, patient safety

LO064

Simulation in Canadian postgraduate emergency medicine training — a national survey

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Introduction: Simulation-based medical education (SBME) is an important training strategy in emergency medicine (EM) postgraduate programs yet the extent of its use is variable. This study sought to characterize the use of simulation in FRCP-EM residency programs across Canada. **Methods:** A national survey was administered to residents (PGY2-5) and program representatives (PR), either a program director or simulation lead at all Canadian FRPC-EM programs. Residents completed either paper or electronic versions of the survey, and PR surveys were conducted by telephone. **Results:** The resident and PR response rates were 60% (187/310) and 100% (16/16), respectively. All residency programs offer both manikin-based high fidelity and task trainer simulation modalities. Residents reported a median of 20 (range 0-150) hours participating in simulation training annually, spending a mean of 16% of time in situ, 55% in hospital-based simulation laboratories, and 29% in off-site locations. Only 52% of residents indicated that the time dedicated to simulation training met their training needs. All PRs reported having a formal simulation curriculum with a frequency of simulation sessions ranging from weekly to every 6 months. Only 3/16 (19%) of programs linked their simulation curriculum to their core teaching. Only 2/16 programs (13%) used simulation for resident assessment, though 15/16 (93%) PRs indicated they would be comfortable with simulation-based assessment. The most common PR identified barriers to administering simulation by were a lack of protected faculty time (75%) and a lack of faculty experience with simulation (56%). Both PRs and residents identified a desire for more simulation training in neonatal resuscitation, pediatric resuscitation, and obstetrical emergencies. Multidisciplinary involvement in simulations was strongly valued by both residents and PRs, with 76% of residents indicating that they would like greater multidisciplinary involvement. **Conclusion:** Among Canadian FRCP-EM residency programs, SBME is a frequently used training modality, however, there exists considerable variability in the structure, frequency and timing of simulation exposure for residents. Several common barriers were identified that impact SBME implementation. The transition to competency-based medical education will require a national, standardized approach to SBME that includes a unified strategy for training and assessment.
Keywords: simulation, education, emergency medicine

LO065

Reduced length of stay and adverse events using Bier block for forearm fracture reduction in the pediatric emergency department

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Introduction: Distal forearm fractures are one of the most common injuries presenting to the pediatric emergency department. Procedural sedation (PS) is commonly used to provide analgesia during fracture reduction, but requires a prolonged recovery period and can be associated with adverse respiratory events. Bier block (BB) regional anesthesia is a safe alternative to PS for fracture reduction analgesia. We sought to assess the impact of BB on length of stay (LOS) and adverse events following forearm fracture reduction compared to PS. **Methods:** We performed a retrospective study of patients aged 6 to 18 years, presenting with forearm fractures requiring closed reduction from June