that relate to team interaction and the operational environment. Physicians rated the training video were able to apply what they learned in the video with an average of 4.67 (median of 5, mode of 5, and an IQR of 0.75). **Conclusion**: The development of the process maps and microkills checklists provides interprofessional teams with more information about chest tube insertion than instructions described in commonly available courses and procedural steps derived by consensus.

Keywords: education, microskills checklist, process maps

P063

Identification of emergency department patients for referral to rapid-access addiction services: A retrospective chart review

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Introduction: Emergency Department (ED) visits related to substance use are rapidly increasing. Despite this, few Canadian EDs have immediate access to addiction medicine specialists or on-site addiction medicine clinics. This study characterized substance-related ED presentations to an urban tertiary care ED and assessed need for an on-site rapid-access addiction clinic (RAAC). **Methods**: This prospective enrollment, retrospective chart review was conducted from June to August 2018. Adult patients presenting to the ED with a known or suspected substance use disorder were enrolled by any member of their ED care team using a 1-page form. Retrospective chart review of the index ED visit was conducted and the Emergency Department Information System was used to extract information related to the visit. A multivariable logistic regression model was fit to examine factors associated with recommendation for referral to a hypothetical on-site RAAC.This prospective enrollment, retrospective chart review was conducted from June to August 2018. Adult patients presenting to the ED with a known or suspected substance use disorder were enrolled by any member of their ED care team using a 1-page form. Retrospective chart review of the index ED visit was conducted and the Emergency Department Information System was used to extract information related to the visit. A multivariable logistic regression model was fit to examine factors associated with recommendation for referral to a hypothetical on-site RAAC. **Results**: Of the 557 enrolment forms received, 458 were included in the analysis. 64% of included patients were male and 36% were female, with a median age of 35.0 years. Polysubstance use was seen in 23% of patients, and alcohol was the most common substance indicated (60%), followed by stimulants (32%) and opioids (16%). The median ED length of stay for included patients was 483 minutes, compared to 354 minutes for all-comers discharged from the ED during the study period. 28% of patients had a previous ED visit within 7 days of the index visit, and an additional 17% had a visit in the preceding 30 days. The ED care team indicated 'Yes' for RAAC referral from the ED for 66% of patients, for a mean of 4.3 patients referred per day during the study period. Multivariable analysis showed that all substances (except cannabis) correlated to a statistically significant increase in likelihood for indicating 'Yes' for RAAC referral from the ED (alcohol, stimulants, opioids, polysubstance; p < 0.05). Patients presenting to the ED with a chief complaint related to substance use were also more likely to be referred (p = 0.01). **Conclusion**: This retrospective chart review characterized substance-related presentations at a Canadian urban tertiary care ED. Approximately four patients per day would have been referred to an on-site RAAC had

one been available. The RAAC model has been implemented in other Canadian hospitals, and collaborating with these sites to begin developing this service would be an important next step.

Keywords: addiction medicine, chart review, quality improvement

P064

A randomized trial comparing telephone tree, text messaging, and instant messaging app for emergency department staff recall for disaster response

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Introduction: A crucial component of a hospital's disaster plan is an efficient staff recall communication method. Many hospitals use a "calling tree" protocol to contact staff members and recall them to work. Alternative staff recall methods have been proposed and explored. **Methods**: An unannounced, multidisciplinary, randomized emergency department (ED) staff recall drill was conducted at night - when there is the greatest need for back-up personnel and staff is most difficult to reach. The drill was performed on December 14, 2017 at 4:00AM and involved ED staff members from three hospitals which are all part of the McGill University Health Centre (MUHC; Montreal, Quebec, Canada). Three tools were compared: manual phone tree, instant messaging application (IMA), and custom-made hospital Short Message Service (SMS) system. The key outcome measures were proportion of responses at 45 minutes and median response time. **Results**: One-hundred thirty-two participants were recruited. There were 44 participants in each group after randomization. In the manual phone tree group, 18 (41%) responded within 45 minutes. In the IMA group, 11 participants (25%) responded in the first 45 minutes. In the SMS group, seven participants responded in the first 45 minutes (16%). Manual phone tree was significantly better than SMS with an effect size of 25% (95% confidence interval for effect: 4.6% to 45.0%; P = .018). Conversely, there was no significant difference between manual phone tree and IMA with an effect size of 16% (95% confidence interval for effect: -5.7% to 38.0%; P = .17) There was a statistically significant difference in the median response time between the three groups with the phone tree group presenting the lowest median response time (8.5 minutes; range: 2.0 to 8.5 minutes; P = .000006). **Conclusion**: Both the phone tree and IMA groups had a significantly higher response rate than the SMS group. There was no significant difference between the proportion of responses at 45 minutes in the phone tree and the IMA arms. This study suggests that an IMA may be a viable alternative to the traditional phone tree method. Limitations of the study include volunteer bias and the fact that there was only one communication drill, which did not allow staff members randomized to the IMA and SMS groups to fully get familiar with the new staff recall methods.

Keywords: disaster, staff recall

P065

Emergency department staff perceived need and preferred methods for communication skills training

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Introduction: Burnout includes emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). Emergency Department (ED) staff have high levels of burnout that may be

responsive to communication skills training. We surveyed ED staff perception of need and efficacy before and after an intervention using an established conflict resolution methodology. **Methods**: ED physicians, nurses and support staff were surveyed at two regional hospitals using the Maslach Burnout Inventory (MBI) and a communications questionnaire to establish the perceived need for communication skill training. Participants from one center were provided with a communications intervention (Crucial Conversations®, VitalSmarts®), and a refresher course 6-15 months later. The survey was then repeated at both sites and course participant feedback was elicited. **Results**: MBI results were high (mean EE = 25.25 (high > 25), 95% CI = 22.5-28; DP = 11.6 (high > 8), 95% CI = 10.1-13.2; PA = 35.85 (low <34), 95% CI = 34.3-37.4). Initially 82% of intervention and 77% of control site participants responded that "attending an educational session about ways to communicate better would help the participants at work". Post intervention group responses to "The program will be helpful to me in communicating more effectively in my work environment" were: 75% "strongly agree" and 25% "agree". No rating below "agree" was assigned by any of the participants. Participants preferred facilitated small group simulations and advocated for earlier career implementation. **Conclusion**: There was a perceived need for and impact from communication skills training for ED staff with high measured burnout. Training may be best implemented in small group simulated encounters and in health professional education curriculum or as part of work orientation.

Keywords: burnout, communication training, emergency department

P066
Ultrasound localization to resuscitate in arrest (ULTRA)

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Introduction: There is increasing evidence supporting ultrasonography for the determination of optimal chest compression location during cardiac arrest. Radiological studies have demonstrated that in up to 1/3 of patients the aortic root or outflow tract is being compressed during standard CPR. Out-of-hospital-cardiac-arrests (OHCA) could benefit from cardiac localization, undertaken with scaled-down ultrasound equipment by which the largest fluid filled structure in the chest (the heart) is identified to guide optimal compression location. We intend to evaluate 1) where the left ventricle is in supine patients, 2) the accuracy and precision as well as 3) the feasibility and reliability of cardiac localization with a scaled down ultrasound device (bladder scanners). **Methods**: We are recruiting men and women over the age of 40. The scanning protocol involves using a bladder scanner on a 15-point grid over the subject's left chest and parasternal, midclavicular, and anterior axillary intercostal spaces 3-7. Detected volumes will be recorded, with the presumption that the intercostal space with the largest measured volume is centered over the heart. Echocardiography will then be used to confirm the bladder scanner accuracy and to better describe the patient's internal chest anatomy. Having assessed procedural feasibility on 3 pilot subjects, we are now recruiting 100 participants, with planned interim analysis at 50 participants for sample size reassessment. Maximal volume location frequencies from the echocardiograms will be described and assessed for variation utilizing the goodness-of-fit test. The proportion of agreement across the two modalities regarding the maximal volume location will also be examined. **Results**: Among the 3 volunteers (pilot study), the scanner identified fluid in 4-8 of 15 intercostal spaces. In each of the three pilot study patients, the maximal volume identified by the bladder scanner was found to be at the parasternal location of the 6th intercostal space. This was also the location of the mid left ventricular diameter on echocardiography. **Conclusion**: Our literature review and pilot study data support the premise that lay persons and emergency medical personnel may improve compressions (and thus outcomes) during OHCA by using a scaled-down ultrasound to identify the location of optimal compression. We are currently enrolling patients in our study.

Keywords: pre-hospital, resuscitation, ultrasound

P067
The number and types of procedural skill acquired by family medicine/emergency medicine (CCFP-EM) residents at different teaching sites

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Introduction: During the one-year CCFP-EM program, residents rotate through different teaching sites. The purpose of this project is to investigate differences in procedural skills acquisition between these sites, which will help identify the effectiveness of each setting for teaching procedural skills amongst EM trainees. **Methods**: Over a two year period, residents enrolled in a CCFP-EM residency training program were asked to log their procedures and the sites where they were performed. The cumulative data was analyzed to show the number and types of procedures performed at each site. **Results**: A total of 477 procedures were logged over two years, with 198 procedures performed at urban tertiary emergency departments (EDs), 116 at community EDs, 87 at intensive care units (ICUs), 37 at urgent care centre, 24 in clinics, and 15 at other settings. Overall, 48 point of care ultrasounds, 75 vascular access procedures, 99 reduction/casting, 48 lumbar punctures, 29 procedural sedations, 125 minor surgical procedures, and 32 other procedures were performed. The majority of procedures were performed at the tertiary care urban ED, followed closely by community ED setting. The only exception was vascular access, which was performed most commonly in ICU settings. **Conclusion**: Our urban tertiary care ED setting provided the most learning opportunity for procedural skill acquisition, suggesting that having maximized time allocated in this setting is essential for EM learners to acquire procedural skills. One exception is that EM learners gain more vascular access training in ICUs.

Keywords: procedural skills, residency training, teaching sites

P068
Significance of asymptomatic oxygen desaturation in elderly ED patients: A pilot study

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Introduction: Pulse oximetry is a standard component of Emergency Department (ED) patient monitoring. Pulse oximetry measures peripheral capillary oxygen saturation (SpO2) levels and can be used to monitor cardiorespiratory conditions. The normal SpO2 level for adults is approximately 96%. Oxygen saturations of <92% are considered problematic and levels <90% may indicate cardiorespiratory disease. However, low oxygen saturations are often seen in elderly patients with comorbidities. This research investigated the