methotrexate, 29 (5.3%) were managed with surgical intervention, and 28 (5.1%) patients had a ruptured ectopic pregnancy after their index ED visit. Of the 550 included patients, 221 (40.2%) did not have a transvaginal US during their index ED visit, 73 (33.0%) were subsequently diagnosed with an ectopic pregnancy. **Conclusion:** These results may be useful for ED physicians counselling women with symptomatic early pregnancies about the risk of ectopic pregnancy after they are discharged from the ED.

Keywords: ectopic pregnancy, emergency department, patient outcomes

P068

Predictors of admission in unscheduled return visits to the emergency department

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Introduction: The 72-hr unscheduled return visit (URV) of an emergency department (ED) patient is often used as a key performance indicator in Emergency Medicine. Patients with unscheduled return visits and admission to hospital (URVA) may represent a distinct subgroup of URVs compared to unscheduled return visits with no admission (URVNA). **Methods:** A retrospective cohort study of all 72-hr URVs in adults across nine EDs in the Edmonton Zone (EZ) over a one-year period (Jan 1 2015 Dec 31 2015) was performed using ED information system data. URVA and URVNA populations were compared and a multivariable analysis identified predictors of URVA. **Results:** Analysis of 40,870 total URV records, including 3,363 URVAs, revealed predictors of URVA on the index visit including older age (>65 yrs, OR 3.6), fewer annual ED visits (<4 visits, OR 2.0), higher disease acuity (CTAS 2, OR 2.6), gastrointestinal presenting complaint (OR 2.2), presenting to a large referral hospital (OR 1.4), and more hours spent in the ED (>12 hours, OR 2.0). A decrease in CTAS score (increase in disease acuity) upon return visit was also a risk factor (-1 CTAS level, OR 2.6). ED crowding at the index visit, as indicated by occupancy level, was not a predictor. **Conclusion:** We demonstrate that URVA patients comprise a distinct subgroup of 72-hr URVs across an entire health region. Risk factors for URVA are present at the index visit suggesting that patients at high risk for URVA may be identifiable prior to admission.

Keywords: unscheduled return visit, performance metrics, triage risk stratification

P069

Hardened tendencies: persistence of initial appraisals following simulation-based stress training

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Introduction: Stress has been shown to impair performance during acute events. The goal of this pilot study was to investigate the effects of two simulation-based training interventions and baseline demographics (gender, age) on stress responses to simulated trauma scenarios. **Methods:** Sixteen (16) Emergency Medicine and Surgery residents were randomly assigned to one of two groups: Stress Inoculation Training (SIT) or Crisis Resource Management (CRM). Residents served as trauma team leaders in simulated trauma scenarios pre and post intervention. CRM training focused on non-technical skills required for effective teamwork. The SIT group focused on cognitive reappraisal, breathing and mental rehearsal. Training lasted 3 hours, involving brief didactic sessions and practice scenarios with debriefing focused on either CRM or SIT. Stress responses were measured with the State Trait Anxiety Inventory (anxiety), cognitive appraisal (degree to which a person interprets a situation as a threat or challenge) and salivary cortisol levels. **Results:** Because the pre-intervention stress responses were different between the two groups, the results were analyzed with stepwise regression analyses. The only significant predictor of anxiety and cortisol responses were the residents appraisal responses to that scenario, explaining 31% of the variance in anxiety and cortisol. Appraisals of the post-intervention scenarios were predicted by their appraisals of the pre-intervention scenario and gender, explaining 73% of the variance. Men were more likely than women to appraise the scenarios as threatening. There were no differences in subjective anxiety, cognitive appraisal or salivary cortisol responses as a result of either intervention. **Conclusion:** Male residents, as well as those who appraised an initial simulated trauma scenario as threatening, were more likely to interpret a subsequent scenario as threatening, and were more likely to have larger subjective (anxiety) and physiological (cortisol) responses a subsequent scenario. Both CRM and SIT training were not effective in overcoming initial appraisals of potentially stressful events.

Keywords: stress, crisis resource management, simulation

P070

Excluding ectopic pregnancy in patients presenting to a community emergency department with first trimester bleeding

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Introduction: Current guidelines recommend patients with first trimester bleeding without previously documented intrauterine pregnancy undergo urgent transvaginal ultrasound (TVUS) to exclude ectopic pregnancy. However, in Canadian practice to receive urgent TVUS, particularly out of daytime hours is difficult, if not impossible. Thus, when TVUS is not available to exclude ectopic pregnancy, providers use point of care ultrasound (POCUS) or their best clinical judgment to determine if the patient can be safely discharged home while awaiting outpatient follow-up. The objective of this study was to determine what proportion of first trimester patients presenting to a community hospital emergency department (ED) with vaginal bleeding undergo either TVUS or POCUS to exclude ectopic pregnancy. **Methods:** This is an ongoing retrospective chart review of pregnant women gestational age (GA) less than 20 weeks presenting to a community hospital ED (103,000 visits/year) with a discharge diagnosis of vaginal bleed, first trimester bleed, threatened abortion, spontaneous abortion, missed abortion, rule out ectopic pregnancy, and ectopic pregnancy from January 2016 - January 2017. Patients are excluded if they are diagnosed with a ruptured ectopic pregnancy during their index ED visit. To date, 98 patient charts have been reviewed. **Results:** Of the 98 included patients, 13 (13.3%) had a viable pregnancy, 37 (37.8%) had a spontaneous or missed abortion, 4 (4.1%) had an ectopic pregnancy, and 45 (45.9%) had unknown outcomes. Of included patients, 4 (4.1%) only had POCUS, 66 (67.4%) only had a radiologist-interpreted TVUS, and 3 (3.1%) had both POCUS and radiologist-interpreted TVUS during their ED index visits. Thus, 73 (74.5%) had either a radiologist-interpreted TVUS or ED provider-performed POCUS during their index ED visit. After their index ED visits, 2 (2.0%) patients returned with ruptured ectopic pregnancies, 1 of whom had not undergone initial US investigations. **Conclusion:** Although TVUS is standard of care to exclude ectopic pregnancy in patients presenting with first trimester

bleeding or abdominal pain, our preliminary results show some patients are not receiving this diagnostic modality nor POCUS during their index ED visit. Particularly in a setting, such as this ED, without rapid access to an early pregnancy clinic, patients should be counselled about their risk of ectopic pregnancy at the time of ED discharge.

Keywords: pregnancy, ectopic, ultrasound

P071
Content of clinical informatics in international training standards for emergency medicine specialists

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Introduction: The field of Clinical Informatics (CI) and specifically the electronic health record, has been identified as a key facilitator to achieve a sustainable evidence-based healthcare system for the future. International graduate medical education programs have been challenged to ensure their trainees are provided with appropriate skills to deliver effective and efficient healthcare in an evolving environment. This study explored how international Emergency Medicine (EM) specialist training standards address training in relevant areas of CI. **Methods:** A list of categories of CI competencies relative to EM was developed following a thematic review of published references documenting CI curriculum and competencies. Publically available, published documents outlining core content, curriculum and competencies from international organizations responsible for specialty graduate medical education and/or credentialing in EM for the United States, Canada, Australasia, the United Kingdom and Europe. These EM training standards were reviewed to identify inclusion of topics related to the relevant categories of CI competencies. **Results:** A total of 23 EM curriculum documents were included in the thematic analysis. Curricula content related to critical appraisal/evidence based medicine, leadership, quality improvement and privacy/security were included in all EM curricula. The CI topics related to fundamental computer skills, computerized provider order entry and patient-centered informatics were only included in the EM curricula documents for the United States and were absent for each other organization. **Conclusion:** There is variation in the CI related content of the international EM specialty training standards which were reviewed. Given the increasing importance of CI in the future delivery of healthcare, organizations responsible for training and credentialing specialist emergency physicians must ensure their training standards incorporate relevant CI content, thus ensuring their trainees gain competence in essential aspects of CI.

Keywords: clinical informatics, competency-based medical education, curriculum

P072
The effect of infographic promotion on research dissemination and readership: a randomized control trial

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Introduction: With the increasing volume of medical literature published each year, it is difficult for clinicians to translate the latest research into practice. Awareness is the first step of knowledge translation and journals have begun using social media to increase the dissemination and awareness of their publications. Infographics can describe research findings visually, are shared broadly on social media, and may be a more effective way to convey information. We hypothesized that infographic abstracts would increase the social media dissemination and online readership of research articles relative to traditional abstracts. **Methods:** In this randomized controlled trial, 24 original research articles were chosen from the six issues of the Canadian Journal of Emergency Medicine (CJEM) published between July 2016 and May 2017 (4 articles per issue). Half were randomized to the infographic and control groups within each issue. Infographic articles were promoted using a visual infographic outlining the findings of the article. Control articles were promoted using a screen capture image of each articles abstract. Both were disseminated through the journals social media accounts (Twitter and Facebook) along with the link to the selected article. Infographics were also published on CanadiEM.org. Abstract views, full text views, and the change in Altmetric score were tracked for 30 days and compared between groups. Unpaired two-tailed t-tests were used to detect significant differences. **Results:** Abstract views (mean, SD) were significantly higher for infographic articles (378.9, 162.0) than control articles (175.5, 69.2, $p < 0.001$). Mean Altmetric scores were significantly higher for infographic articles (26.4, 13.8) than control articles (3.4, 1.7, $p < 0.0001$). There was no statistically significant difference in full-text views between infographic (49.7, 90.4) and control articles (25.3, 12.3). **Conclusion:** CJEM articles promoted on social media using infographics had higher abstract viewership and Altmetric scores than those promoted with traditional abstracts. Although there was no difference in full-text readership, our results suggest that infographic abstracts may have a role in increasing the dissemination of medical literature.

Keywords: infographics, social media, knowledge translation

P073
The GridlockED board game: using serious games for medical education

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Introduction: The management of patient flow in the emergency department (ED) is crucial for the practice of emergency medicine (EM). However, this skill is difficult to teach didactically and is learned implicitly in the latter half of residency training. To help expedite the learning process, we developed the GridlockED board game as an educational tool to simulate ED patient flow. By having junior medical trainees play this game, we believe that they will develop a greater understanding of patient flow and resource management in the ED. Additionally, since GridlockED is a cooperative game, players may also benefit by improving their communication and teamwork skills. **Methods:** GridlockED was developed over twenty months of iterative gameplay and review. Feedback from attending emergency physicians, residents, and medical students was integrated into the game through a Plan-Do-Study-Act (PDSA) model. Emergency medicine nurses, physicians and residents at McMaster University were recruited to play GridlockED. Each player completed a pre-survey to collect demographic data and to assess their prior experience with playing board games. All play sessions were recorded for data collection purposes. Following each game session, a member of the research team conducted an exit interview with the players to gather information about their play experience and the educational value of the game. A post-survey was also sent to each participant for further feedback. **Results:** Eighteen gameplay sessions were conducted from June to August 2017. A total of