

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. Publicly 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 article's abstract. Both were disseminated through the journal's 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

thirty-two participants played the game (13 emergency physicians, 15 residents, and four nurses). Overall responses to the post-gameplay survey showed that players endorsed GridlockED as a useful potential teaching tool (75%, n = 24/32) and the majority felt that it had the potential to improve patient flow in the ED (56%, n = 18/32). Most participants found that the game was easy to play (91%, n = 27/29), and that the instructions were clear (87.5%, n = 28/32). Respondents also felt that the game reflected real life scenarios (56%, n = 18) and that cases reflected the types of patients that they saw in the ED (78%, n = 25). **Conclusion:** Our results have shown an overall positive response to GridlockED, with most participants supporting it as both an engaging board game and potential teaching tool. We believe that future studies with larger sample sizes and medical students will further validate the use of serious games in medical education.

Keywords: simulation, education, serious games

P074

Comparison of unmanned aerial vehicle technology versus standard practice in triaging casualties by paramedic students in a mass casualty incident scenario

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Introduction: The proliferation of unmanned aerial vehicle (UAV) technology has the potential to change the way medical incident commanders respond to mass casualty incidents (MCI) in triaging victims. The aim of this study was to compare UAV technology to standard practice (SP) in triaging casualties at a MCI. **Methods:** A randomized comparison study was conducted with forty paramedic students from the Holland College Paramedicine Program. Using a simulated motor vehicle collision with moulaged casualties, iterations of twenty students were used for both a day and a night trial. Students were randomized to an UAV or a SP group. After a brief narrative participants either entered the study environment or used UAV technology where total time to triage completion, green casualty evacuation, time on scene, triage order and accuracy was recorded. **Results:** A statistical difference in the time to completing of 3.63 minutes (95% CI: 2.45, 4.85, p = 0.002) during the day iteration and a difference of 3.49 minutes (95% CI: 2.08, 6.06, p = 0.002) for the night trial with UAV groups was noted. There was no difference found in time to green casualty evacuation, time on scene or triage order. One hundred percent accuracy was noted between both groups. **Conclusion:** This study demonstrated the feasibility of using an UAV at a MCI. A non clinical significant difference was noted in total time to completion between both groups. There was no increase in time on scene by using the UAV while demonstrating the feasibility of remotely triaging green casualties prior to first responder arrival.

Keywords: disaster medicine, unmanned aerial vehicle, emergency medical services

P075

Discovering the unknown: using storytelling to identify emergent learning needs for the intrinsic competencies within an online needs assessment

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Introduction: Free Open Access Medical education (FOAM) resources have been developed using various needs assessment methods. We describe a storytelling exercise used to identify unperceived medical

expert learning needs, which also resulted in the emergence of unknown learning needs within intrinsic physician roles. **Methods:** A FOAM curriculum was created for thrombosis based on an online needs assessment comprised of a topic listing, case scenarios, and a storytelling exercise. In the storytelling exercise, learners described i) a difficult case in thrombosis, and ii) why that case was difficult. In this qualitative description study, we performed a secondary thematic analysis of this storytelling data, coded for CanMEDS 2015 intrinsic roles. Two investigators independently coded transcripts to iteratively generate a coding framework. **Results:** 143 respondents completed the storytelling exercise. All responses yielded a gap in medical expertise, while 25 (17.5%) described an additional intrinsic theme. Learning needs in all six intrinsic roles were identified. The most commonly cited learning needs were in the Leader (recognizing how resource allocation impacts healthcare), Communicator (communicating expert knowledge with patients), and Collaborator (unclear communication between providers) domains. Participants who described an intrinsic learning need were primarily from emergency medicine (21/25, 84.0%). These excerpts were notable for how they expressed the complexity and affective components of medicine. **Conclusion:** Storytelling exercises can highlight context, attitudes, and relationships which provide depth to needs assessments. These narratives are a novel method of capturing emergent learning needs, which may be unknown to learner and faculty (Johari window). These intrinsic learning needs may ultimately be used to enrich learner-centered curricula.

Keywords: needs assessment, free open access medicine, storytelling

P076

Choosing Wisely: hemoglobin transfusions and the treatment of iron deficiency anemia

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Introduction: Choosing Wisely Canada has identified blood transfusions as a priority area for improving clinical appropriateness. Relevant recommendations include Dont transfuse blood if other non-transfusion therapies or observation would be just as effective. In parallel with this recommendation, the Alberta division of Towards Optimized Practice (ToP) has developed guidelines for the treatment of iron deficiency anemia (IDA) that emphasize the use of non-transfusion therapies (i.e. parenteral or oral iron, in appropriate patients). Choosing Wisely also emphasizes strategies to better engage patients in shared decision making. **Methods:** In order to better engage patients in shared decision making about their treatment options, both physician and patient handouts were developed using an iterative process. The development of the patient-facing documents began with a synthesis of educational materials currently available to patients with IDA. Clinical leaders from nine different specialties (Emergency Medicine, Family Medicine, Day Medicine, Hematology, and others) were continually engaged in the development of content using a consensus model. A focus group of ESCN patient advisors was assembled to review materials with an emphasis on: (1) Are the patient materials easily understood? (2) Are intended messages resonating while avoiding unintended messaging? (3) What information do patients require that has not been included? Following the focus group, revisions were made to patient materials and a subsequent online survey confirmed that the final version addressed any issues they had raised. **Results:** A four-page patient handout/info-graphic was developed utilizing best practices in information design, and in physician and patient engagement. Content includes the causes and symptoms of IDA, progressive treatment options from dietary