

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 Don't 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