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TriagED: A serious game for mass casualty triage and field disaster management

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Innovation Concept: Mass Casualty Incidents (MCI) are complex events that most paramedics encounter only a few times in their careers. Triaging and managing multiple patients during an incident requires different skills than typically practiced by prehospital providers. Simulation and drills can provide an opportunity to practice those skills, but are costly and resource intensive while only allowing a few providers to be in a triage or leadership role. It is important to find engaging and less expensive methods for teaching MCI triage and initial scene management. Methods: The authors have developed and are testing a card game based on the previously published GridlockED board game. The game was developed utilizing an iterative process previously described. This game was tested with paramedics as well as other emergency medicine learners to determine usability, engagement, fidelity, as well as usefulness in teaching MCI triage and patient-flow concepts. Curriculum, Tool or Material: The card game provides a focused learning experience to allow providers to practice initial triage of multiple injured patients as well as manage patient flow from the scene to area hospitals when faced with limited prehospital resources and capabilities. Players work together in various simulated scenarios to correctly triage injured patients and send them to the correct healthcare facility. Conclusion: Serious gaming has gained momentum in medical education. Developing novel curricula around low frequency, high stakes situations using a game like TriagED may hold the key to ensure prehospital care providers are trained for these incidents. In the future, games which integrate an element of Incident Command or receiving hospitals (e.g. full integration with GridlockED game) may help to further explore the relationship between scene management and patient flow within receiving hospitals. Keywords: innovations in EM education, mass casualty triage, serious gaming

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Increasing access to computed tomography scanning in the emergency department and its effect on patient outcomes

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Background: There is growing concern about emergency physicians overuse of computed tomography (CT). In an attempt to ensure appropriate ordering many hospitals implement strict protocols for ordering of CT scans in the emergency department (ED) that include approval of all scans by a board-certified radiologist, and a reduced access to CT overnight. Aim Statement: The aim of this study is to review the impact of RAD ED – direct access to CT ordering by ED physicians, 24hr CT technologist and third-party reporting on CT scans overnight. Our objectives were to assess the effect on; 1) ED length of stay, 2) number of CT scans ordered and 3) admission rates. Measures & Design: We conducted a prospective pilot before & after study at a single tertiary-care emergency department between February 1st, 2018 and July 31st, 2018. Inclusion criteria were adult patients presenting to the emergency department and undergoing CT for any of the following: face, neck, spine, upper and lower extremities, chest, abdomen and pelvis. Exclusion criteria were those undergoing CT head for stroke or trauma. Evaluation/Results: A total of 924 patients met our criteria, 352 before and 572 after implementation. Comparison of the patient populations demonstrate very similar characteristics in both groups; (49% male, average age 56 years, CTAS 2(40%) and 3(47%). Results demonstrate that an additional 216 scans were performed in post-implementation group. This equates to an increase of 61%. ED length of stay averaged 5.6 hours pre-implementation and 4.7 hours post-implementation. This corresponds to a significant reduction in length of stay of approximately 0.9 hours (p < 0.01). Collection is currently ongoing for factors that we will adjust for a multivariate analysis, including admission rates. Discussion/Impact: RAD ED led to a significant increase in CT ordering and decrease in ED length of stay. We believe that this project provides important information to clinicians and patients with regards to overall CT utilization, ED wait times, follow up visits for CT scanning and admission rates. It is also important for administrators to help decide if these new rules are leading to improved efficiency, and to help estimate their financial impact. Keywords: computed, quality improvement and patient safety, tomography

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Methods for teaching managerial skills in the emergency department: a survey of Canadian educators

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Introduction: Emergency department (ED) crowding and increased patient load has been shown to have an impact on physician decision making and patient mortality. As the volumes in Canadian EDs increase, so does the need to effectively prepare new learners for the challenges ahead. This study aims to determine which level of training varying teaching techniques should be employed to educate Emergency Medicine (EM) residents about ED management and flow in the age of competency based medical education. Methods: We designed a survey that contained a previously derived list of ED flow and management teaching strategies. We piloted and edited