Educational Objective: To design an educational experience for senior medical students that addresses coping with medical errors.

Curricular Design: We designed and implemented an educational experience within the established fourth-year capstone course at our institution, which is a required 2-week curriculum that prepares 4th year students for the transition to internship. After a brief lecture on medical errors, students participated in a standardized patient encounter in which they were required to disclose a medical error to the spouse of a critically ill patient. The error in the scenario was administration of an incorrect antibiotic leading to anaphylaxis requiring intubation. The standardized patients were instructed to portray strong emotions appropriate to the situation, including anger, shock, and grief, requiring students to navigate the error disclosure process in a realistic way. Afterwards, students participated in group debriefing focused on the challenges of disclosing medical errors and the impact of error on professional identity. Student feedback on the curriculum was obtained using a post-course survey.

Impact: This novel experience addresses an under-recognized but important topic in medical education. Among participating students, 94% agreed that medical error is an important topic, and 92% felt more comfortable discussing medical errors. Formal instruction in coping with medical errors may help mitigate the adverse psychological impact of making medical errors in clinical practice, and better prepare students for the transition to residency and beyond.

7 The House Cup Challenge: A Gamified Curriculum for Emergency Medicine Residents

Marion-Vincent Mempin, Brian Smith, Suji Cha, Jessie Chen

Learning Objectives: Our goal was to create a bespoke annual competition that incentivizes residents' participation both during conference and outside scholarly activities as well as foster camaraderie between residents and boost morale of the residency program.

Introduction: Current emergency medicine (EM) residents have different learning styles and benefit from a more immersive educational strategy over classic, lecture-based curricula.1,2,3,4 Integrating gamification into a didactic curriculum has been shown to boost learners' participation.2 An annual competition that incentivises residents' participation in conference and scholarly activities can motivate educators to create more interactive learning tools and encourage resident participation.

Objectives: Our goal was to create an annual competition in which residents earn points based on various competitions and completion of scholarly activities. We hypothesize that our novel competition will motivate residents to participate in conference activities and scholarly activities, as well as foster camaraderie between residents and improve overall morale.

Curricular Design: Residents were randomly sorted into four groups at the beginning of the academic year with an equal distribution of PGY levels. Residents had opportunities to earn points for their teams through a variety of predetermined activities including individual and team-based competitions during conferences and completion of scholarly activities. Points could also be deducted for missed deadlines. The challenge spanned the academic year and the group with the highest points was awarded prizes.

Impact/Effectiveness: Our House Cup Challenge has stimulated resident participation, fostered camaraderie, and improved residency morale. Residents completed an anonymous Likert scale survey to assess the impact of the competition. 73% report that the challenge boosted overall morale and 70% report that it helped foster camaraderie with co-residents. In terms of education, 62% of the residency were incentivized to participate in activities in which they otherwise would not have participated and 66% would want to participate again next year. This competition can be easily integrated into any EM residency curriculum.

8 Battle of the Classes: Experiential Learning Through the Gamification of Conference

William Chan, Kent Li, David Simon, Anika Nichlany, Richard Shin, Anita Lui, Kallie Combs, Akshay Elagandhala

Learning Objectives: 1) Improve active engagement of learners through gamification. 2) Prepare learners to appropriately respond to mass casualty incidents. 3) Understand the management of multiple disease processes secondary to trauma and environmental factors.

Background: With traditional models of teaching falling out of favor, there is increased evidence supporting hands-on and experiential learning models. Gamification is a dynamic avenue that stimulates learner engagement by incorporating elements of game design to non-game contexts. However, its utility as a learning tool has not been formally examined as part of a residency curriculum. We aim to augment existing learning models by implementing gamification in a SimWars-based conference curriculum.

Educational Objectives: 1) Improve active engagement of learners through gamification. 2) Prepare learners to appropriately respond to mass casualty incidents. 3) Understand the management of multiple disease processes secondary to trauma and environmental factors.

Curricular Design: Learners (EM residents) were divided into three teams corresponding to their years of post-graduate training. Each team participated in treating a

set of simulated patients that were deemed to be appropriate for their level of training. Cases included the following patient scenarios: exposure to an unknown environmental agent, hazardous building fire, mass casualty incident triage, and hemorrhagic shock management. Learners not directly involved in the case observed from the audience. This three-hour simulation session was conducted during weekly conference using simulation mannequins, high-fidelity low-cost models, and faculty acting as patients and other personnel. Designated faculty members judged teams on their teamwork and management. After each case, faculty members conducted a debrief focused on the educational objectives for the case. After the simulation session, the residents completed a likert-type survey to assess resident learning and engagement.

Impact: The residents provided overwhelmingly positive feedback. They found that this simulation was more educational than other types of activities, helping them better understand and manage the relevant emergent pathology.

9 Gotta Escape EM all! Emergency Medicine Resident Education with Gamification

Kevin Hon, Marion-Vincent Mempin

Learning Objectives: Priapism drainage; Common causes of hyperkalemia; Pacemaker EKGs and errors; Common toxic botanicals and their treatments; Beta-blocker toxicity management; Psychiatric medical emergencies; Resuscitation of adult and pediatric burn victims; Wilderness resuscitation skills.

Introduction/Background: Traditional conferences provide a uniform, didactic review. Modern residents can benefit from a structure that engages them in active learning with immersive and collaborative experiences. Activities like flipped classrooms, simulation, and virtual learning have improved upon the ennui of prior conferences. We seek to appropriate the escape room to review key, uncommon topics in emergency medicine (EM) as a conference activity to address areas of improvement in residents' knowledge prior to their in-training exam (ITE).

Educational Objectives: At the completion of the escape room activity, residents and medical students will be tested upon and be able to perform the following: Priapism drainage Common causes of hyperkalemia Pacemaker EKGs and errors Common toxic botanicals and their treatments Beta-blocker toxicity management Psychiatric medical emergencies Resuscitation of adult and pediatric burn victims Wilderness resuscitation skills.

Curricular Design: A survey-based needs assessment was done by EM residents about the topics which needed more review before their ITE. Topics were assessed to determine an optimal method for review: lecture, group session, or gamification. Those selected for gamification were designed to fit a predetermined theme to complement a ninety minute conference lecture alternative escape room. Residents were split into four groups and raced to complete the activity. Afterward, residents were provided a review over each topic and the escape room was surveyed for its effectiveness and satisfaction with respect to the review of the objectives.

Impact/Effectiveness: An anonymous Likert scale survey provided to residents showed 90% rating the activity successful in achieving its academic goal and 95% as an activity that residents wanted to implement again in the future. 93% of residents who provided feedback regarding topic selection agreed that the activity addressed their prior curricular deficits.

10 Power Half Hour: A Short, Sweet, and Clinical Image-Based Peer-to-Peer Educational Curriculum

Lauren McCafferty, Leah Carter, Andrew Schaub

Learning Objectives: Our goal was to address knowledge deficiencies encountered by residents on shift through a peer-to-peer didactic curriculum covering high-yield EM core content through a series of clinical images obtained in our ED.

Background: In an EM residency curriculum, there are clinical scenarios encountered by trainees that are not adequately addressed in a traditional didactic format. When residents encounter these scenarios, they have the opportunity to enhance their own clinical acumen with "just in time" learning but no organized way to share the new information with their peers. There is evidence showing that peer-to-peer teaching fosters a supportive learning environment while not sacrificing the integrity of content delivered. Additionally, this format solidifies the concepts for the teaching resident and promotes their development into a skilled educator.

Curricular Design: In order to address knowledge deficiencies encountered by residents on shift, we created Power Half Hour (PHH), a resident-led didactic series, presented bi-monthly in conference, that centers around a series of clinical images. The images, including a combination of physical exam findings, ECGs, and diagnostic images, are presented with high-yield, clinically relevant teaching pearls.

Impact/Effectiveness: Our PHH innovation was incorporated as a recurring series into the resident curriculum. After a year of implementation, residents were surveyed on how educationally beneficial they found PHH. Of the 28 residents who completed the survey, 13 residents (46%) found PHH very beneficial, 12 residents (43%) found PHH somewhat beneficial, and the remaining were neutral. By implementing a clinical image-based