The scenario and debrief were videotaped and analyzed by two faculty to assess if the supervising resident gauged the junior resident's knowledge of the procedure, ensured that critical actions were followed, and could manage the complication. The time elapsed before the complication was identified was recorded. Evaluation also included anonymous surveys before and after the SIM to obtain resident perceptions of their ability to supervise.

Impact: The SIM effectively assessed if the supervising resident evaluated the junior's procedural knowledge, if they provided appropriate education, and if they ensured critical actions were performed. However, we could not assess if the senior recognized the complication as other team members often spoke out first. Team-based SIM is likely not an effective tool to thoroughly evaluate an individual resident. The time it took for each team to identify the pneumothorax ranged from 12 seconds to 185 seconds. Debriefing this delay in diagnosis provided education to expedite recognition of this complication in the future, illustrating the educational benefit of the SIM. Resident surveys also support this value as 69% of the residents felt that after this SIM they felt more prepared to supervise.

10 Code SIM: Cardiac Arrest Simulations for Graduating Medical Students

Carrie Foster, Casey Morrone, Nicholas Hartman

Introduction/ Background: There are clinical scenarios graduating medical students encounter early in residency for which they feel unprepared, such as cardiac arrest management. While many students observe resuscitations, few will actively participate in leading one. Lack of familiarity with the Advanced Cardiac Life Support (ACLS) algorithm and the team dynamics required to run a code may lead to delayed care and inadequate resource utilization. There is a need to minimize this knowledge gap via experiential learning in order to improve preparedness.

Educational Objectives: Our innovative curriculum focused on preparing graduating medical students to simultaneously assign roles to team members, communicate clearly and effectively, use the ACLS algorithm, and develop a differential diagnosis during a critical patient care scenario. We placed a heavy emphasis on team dynamics and communication skills.

Curricular Design: We developed a one-hour simulation course to augment the Transition to Residency course offered to graduating medical students. Our course included two novel cases centered on cardiac arrest management. To maximize experiential learning, we utilized high-fidelity SIM to mimic an in-situ code as realistically as possible. Prior to beginning the cases, students were split into groups and a team leader was selected. Leaders were required to recognize the patient in cardiac arrest, assign roles, follow the ACLS algorithm, and prepare a differential diagnosis for the cardiac arrest. After each case critical actions, key differential diagnoses, and areas for improvement were reviewed. Students were surveyed after completion of the session.

Impact/Effectiveness: Of the 64 students who participated in the course, 57 (89%) completed the survey; 100% of students agreed or strongly agreed that the session achieved its objectives and enhanced their preparation for internship. Also, students preferred the resident-led nature of the session and wished it were longer.

11 Creation and Implementation of a Novel Asynchronous ECG Curriculum for PGY1 Emergency Medicine Residents

Spenser Lang, Jessica Baez

Introduction/ Background: Electrocardiogram (ECG) interpretation remains a fundamental and essential skill for Emergency Medicine (EM) physicians. In our institution, ECG interpretation teaching occurred mainly during clinical shifts, or indirectly through other established curricula. We recognized an opportunity for a more standardized curriculum within our residency program while avoiding increased mandatory in-person activities or removing another aspect of resident education. In addition, we wanted to maintain an adult learner-centric focus that residents can complete on their own schedule, but with the ability to interact with a faculty member for improved quality. With that in mind, we created a curriculum designed for asynchronous delivery over the Slack platform, with faculty member moderation.

Objectives: Standardize ECG interpretation for PGY1 residents, with focus on identification/management of 4 clinical categories: ischemia, tachydysrhythmias, bradydysrhythmias, & syncope.

Curricular Design: All resident learners were enrolled on Slack, and divided into groups, each with a separate faculty instructor. The curriculum spans 1 academic year, with a weekly recurring segment. Each week, the instructor sends a clinical prompt, vitals, and an ECG via Slack to the group. Residents review the ECG within the next 4 days, form an interpretation, then send their answer back to the instructor via private message. After ~5 days, the instructor reveals the correct interpretation via group chat, and opens the conversation within the group for questions and discussion of clinical management.

Impact: The resident learners provided generally positive feedback. Weekly participation was overall quite high, with some small decrease near the end of the academic year. To assess effectiveness, we used a pre-post intervention survey to measure resident learners' self-reported comfort with the various categories of ECG interpretation and management (see Figure 1).