

4 Reversing the Script: Peer-Based Teaching of Foundational Concepts in Emergency Medicine Using a FOAMed Curriculum

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Background: Every emergency medicine (EM) residency creates experiences allowing learners to master their most foundational skill: the approach to an undifferentiated patient. While extraordinary clinical experiences can literally roll through the door, crafting meaningful didactic experiences is fraught with the challenges of delivering content appropriate for learner ability, using faculty resources efficiently, and remaining appropriately responsive to learner preferences. At our institution, formal feedback from learners underscored these issues while also revealing a desire among senior residents for more teaching opportunities and, among junior residents, a desire for dedicated introductory content.

Educational Objectives: The objectives of our curricular innovation were multifaceted: 1) provide introductory content; 2) develop teaching opportunities for senior residents; 3) involve junior residents in the didactic process to cultivate self-directed learning, leadership, and confidence; and 4) create an additional setting that would allow junior residents to feel comfortable expressing knowledge gaps. Specifically, our innovation places the learner in the teaching role, supplanting a faculty-led program with a peer-based teaching model. Peer-based teaching allows for increased learner engagement, leadership development, and fosters an open learning environment.

Curricular Design: We implemented a modified version of the Foundations of Emergency Medicine (Foundations) curriculum. Foundations is an open-access, peer-reviewed program modeled on the American Board of Emergency Medicine Model of the Clinical Practice of Emergency Medicine (EM) and has been adopted by over 20 EM residencies. Foundations employs a case-based, flipped-classroom approach and was originally designed with three faculty members guiding residents through three cases per week. Once per month during the residency's weekly didactic session, we offer two-hour Foundations breakout sessions. First-year residents, a departmental fellow, and two senior residents meet in a separate learning space. Three preselected first-year residents, who have been provided teaching cases in advance, alternate guiding their peers through each Foundations case in an oral-boards format. Each intern is expected to review his or her case and act as a topic "expert" by supplementing their knowledge with Foundations-suggested reading. Senior residents and the fellow help guide learning as needed and provide real-life clinical perspectives.

Impact/Effectiveness: This intervention meets our

institutional goals for medical education and honors formal feedback obtained from our residents. The peer instructional model engages residents in a didactic experience that requires demonstration of knowledge while cultivating teaching skills, leadership, and confidence. The Foundations curriculum is of high quality, tailored to the learner's level of training, and fosters familiarity with the oral-boards format. The employment of a breakout session during departmental conference allows concurrent scheduling of advanced topics to be taught by faculty for senior residents. Furthermore, breakout sessions provide a setting in which first-year residents feel secure asking questions and demonstrating knowledge gaps that can be addressed by facilitators. Qualitative and quantitative feedback regarding each Foundations session was collected from learners. Overwhelmingly, learners found the sessions extremely relevant to their education and a refreshing approach. Unexpectedly, several interns reported that the sessions provided a safe space for mental health check-ins, suggesting that the small group setting of peers may have additional benefits. Areas for suggested improvement included providing a reference sheet of salient teaching points and providing paper copies of electrocardiograms. Future goals include expanding the program from monthly to weekly sessions and potentially offering an advanced peer-to-peer Foundations curriculum to senior residents.

5 Assessing How a Shared Mental Model Influences Team Performance in Blunt Trauma Resuscitation

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Background: Successful trauma resuscitation is complex and requires cooperation of several different team members. Having a shared mental model that includes emphasis on non-technical skills has been shown to reduce medical errors and improve performance in resuscitations. This is important in trauma centers where frequent turnover of residents managing resuscitations limits teamwork. Additionally, while individual technical skills are often adequately trained, non-technical skills are underemphasized. The purpose of this innovation was to assess how specific interventions to create a shared mental model and improve non-technical skills would influence trauma resuscitation performance.

Educational Objectives: Our goals were to 1) create a shared mental model for the approach to the blunt trauma patient; 2) translate this model into three educational tools – a) an instructional video simulating ideal resuscitation, b) a trauma care checklist, and c) a positioning map for each role; 3) deliver this model to all residents; and 4) assess