

versus “stable”; 3) recognize the “EM Mindset”, including initial stabilization/workup and “worst-first” mentality.

**Curricular Design:** Using Kern’s model, our team of expert faculty refined topics in the CDEM Curriculum, established module objectives, and created templates for a development team including EM residents as authors, and Clerkship Director and medical student stakeholders as editors. Modules were adapted from existing Foundations I cases, with added emphasis on determination of stability and development of the differential, and de-emphasis of advanced management. After iterative stakeholder and expert review, 13 cases (Table 1) were paired with curated asynchronous resources (e.g., book chapters, blog posts) to support flipped classroom learning and an “Essential Learning” summary to support spaced repetition.

**Impact/Effectiveness:** Since publication of the curriculum and implementation resources (Table 2) on the FoEM website in July 2023, 66 programs serving 2,750 students have registered to use FoEM Clerkship. To investigate effectiveness and fuel improvement, we will obtain survey data from program leaders and learners in 2024. We hope that FoEM Clerkship provides an effective national tool for EM clerkship learning.

**Table 1.** FoEM Clerkship Curriculum Topics..

Chest Pain	Back Pain
Shortness of Breath	Toxic Ingestion
Abdominal Pain	Trauma
Pediatric Fever	Syncope
Vaginal Bleeding	Dizziness
Altered Mental Status	Sepsis
Headache	

**Table 2.** Resources for FoEM Clerkship Module 1: Chest pain.

Implementation Resources	Didactic Resources	Asynchronous Resources
<ul style="list-style-type: none"> <li>• Clerkship Course Director Implementation Guide</li> <li>• Clerkship Small Group Instructor Guide</li> <li>• Clerkship Learner Guide</li> <li>• Foundations Case Note Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Case 1</li> <li>• Essential Learning Summary</li> </ul>	<p>Text Based:</p> <ul style="list-style-type: none"> <li>• Tintinalli’s (9e), Chapter 48</li> <li>• Rosen’s (10e), Chapter 22</li> </ul> <p>FOAMed:</p> <ul style="list-style-type: none"> <li>• CoreEM: Chest Pain</li> <li>• EM in 5: Approach to CP</li> <li>• NuMose: Chest Pain</li> </ul> <p>Podcasts:</p> <ul style="list-style-type: none"> <li>• EM Basic: Chest Pain</li> <li>• EM Clerkship: Chest Pain</li> </ul>

\*Active links for all resources can be found at [www.foundationsem.com](http://www.foundationsem.com).

### 3 Cased-Based Imaging Curriculum: Filling an Educa

*Katrina D’Amore, Michael Fucci, Raymond Isenburg, Christine Ju, Matthew Kuhns, Hyunjoo Kuhns, Anthony Sielicki, Scott Hamlin, Kristen Gabrow Moore, Eric Steinberg*

**Introduction/ Background:** Emergency medicine (EM) physicians are expected to be competent in radiographic

interpretation. Despite this, radiology training is variable in EM residency programs. Foundations of Emergency Medicine (FoEM) is a free curriculum that currently serves 245 EM sites globally. According to the 2020 FoEM needs assessment survey, 63% (80/126) of programs did not have a formal radiology curriculum. An average of eight hours of conference time per year was dedicated to radiology.

**Educational objectives:** Within the established FoEM platform, we sought to create a high-quality curriculum for EM radiology that was clinically relevant, able to be delivered asynchronously, and had elements appealing to all learning styles.

**Curricular Design:** Case-Based Imaging is a two-pronged curriculum targeting EM residents. High yield topics were identified to complement the existing Foundations of EM content. The first prong consists of a recorded lecture. While viewing, the learner is expected to complete a worksheet. The second prong consists of learner-driven interactive radiology cases on Pacsbin, a cloud-based picture archiving and communication system (PACS). Quizzes contain questions with both static and dynamic radiographic images. Quizzes were reviewed by EM and radiology faculty and piloted prior to release. All content is available at [foundationsem.com/case-based-imaging/](http://foundationsem.com/case-based-imaging/).

**Impact/Effectiveness:** To date, 14 modules have been published, accumulating 4,541 views from 2,000 unique viewers. This likely underestimates true viewership as modules may be viewed in group settings. 453 unique users completed self-assessment quizzes. Our five most popular modules (“Pneumonia,” “Appendicitis,” “Head Trauma,” “Pulmonary Embolism,” and “Small Bowel Obstruction,” had mean pre-test scores of 80, 67.9, 82.9, 78, and 70.5, respectively, and post-test scores of 87.3, 83.4, 96.6, 84.3, and 75.2 respectively, suggesting curricular effectiveness.

### 4 Safer Stimulant Use: Harm Reduction Curriculum for Emergency Medicine (EM) Residents and Faculty

*Alexa Van Besien, Karrin Weisenthal, Samantha Johnson, Laura Welsh*

**Introduction:** Concurrent with the opioid epidemic, there is a significant rise in stimulant use-related Emergency Department (ED) visits with a similar increase in morbidity and mortality. Abstinence counseling is insufficient as many patients who use stimulants (PWUS) do not want to stop using stimulants, and there are no FDA-approved treatments for stimulant use disorder. Employing harm reduction techniques in the ED can improve the health and safety of PWUS and reduce mortality rates, but no formal curricula exist on the subject. Thus, we designed a curriculum to empower EM physicians to utilize these strategies using

clinical scenarios and structured group case discussions.

**Educational Objectives:** To improve EM physicians' knowledge and comfort with identifying patterns of use and employing harm reduction strategies when caring for PWUS.

**Curricular Design:** This was a two-hour in-person workshop for EM residents and faculty. It consisted of a 30-minute didactic session and small group case discussions of two clinical scenarios. Each case aimed to highlight patterns of stimulant use and allow the learners to apply content from the lecture. An attending physician led each small group and was equipped with a facilitator guide and harm reduction supplies to direct the discussion. The content of the lecture and case discussions were informed by a comprehensive literature review and designed by two EM physicians, one with addiction medicine fellowship training. The need for this content was established during a similar curriculum addressing opioid use. A curriculum evaluation was distributed to all participants.

**Impact/Effectiveness:** A total of 23 of 28 participants (82%) completed the evaluation. All respondents reported a high likelihood of incorporating harm-reduction techniques into their future practice, and all found the curriculum to be highly effective. Additionally, participant confidence in every category increased after the curriculum (Table 1).

Table 1.

Confidence in Ability to	Mean Baseline Score	Mean Postcurriculum Score	Mean Difference (99% Confidence Interval)	P value
Counsel on harm reduction techniques for patients who smoke stimulants	1.95	3.86	1.91 (1.44 to 2.37)	<0.0001
Identify a "crashing" patient?	2.50	3.82	1.32 (0.70 to 1.94)	<0.0001
Counsel patients on harm reduction techniques for people who inhale/sniff stimulants.	1.72	3.72	2.00 (1.49 to 2.51)	<0.0001
To discuss cardiac risks among people who use cocaine with or without alcohol.	2.91	4.18	1.27 (0.66 to 1.88)	<0.0001

Rated on 5-point Likert scale: (1= Not at all confident, 5= Extremely Confident)

## 5 Utilizing a Graduated Responsibility Model for Emergency Medicine Resident Disaster Response Education

*Kalee Royster, Frank Forde, Jordan Singer, Jehanne Belange, Jason Zeller, Regina Yaskey, Jeffrey H. Luk*

**Background:** Disaster preparedness is an essential component of Emergency Medicine residency education. Although professional societies outline disaster medicine topics that should be taught to EM residents, the most effective method remains unknown, leading to variability in knowledge and skills among EM physicians. With an increasing number of mass casualty events, it is more

important than ever to design and implement an effective and more standardized training model.

**Objectives:** For EM residents to attain comfort with mass casualty management using a graduated responsibility model, by learning and applying disaster medicine concepts based on assigned roles.

**Design:** Residents were divided into three groups based on training year, each group with a specific training role for the disaster exercise. Before the drill, all residents attended a class-specific introduction lecture. PGY1 residents were tasked with triaging patients. PGY2 residents were responsible for receiving and treating disaster patients, utilizing simulation manikins and procedural training systems to mimic real life management in a surge environment. PGY3 residents practiced managing ED, hospital and system-wide coordination and disposition of patients. Several models of education were utilized during the session, including SIM, procedural training, tabletop, and mannequin patients to recreate a realistic ED environment during a disaster patient surge.

**Impact:** Our curriculum has received positive feedback from residents, specifically in terms of feeling more prepared for mass casualty events. Having a graduated responsibility approach creates a standardized method that can be applied universally among trainees, and allow for residents to learn multiple roles to best prepare them for future disaster responsibilities. Pre- and post-test competency evaluations assessing knowledge and comfort level will continue to be incorporated and analyzed in future disaster simulation training exercises.



Table 1.