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

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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 Post/curriculum Score | Mean Difference (95% Confidence interval) | P value |
| Counsel on harm reduction techniques for patients who smoke stimulants | 1.95 | 2.90 | 1.95 (1.44 to 2.37) | <0.0001 |
| Identify a “creeping” patient? | 2.50 | 3.82 | 1.32 (0.70 to 1.94) | <0.0001 |
| Counsel patients on harm reduction techniques for people who continusly stimulants | 1.72 | 3.72 | 2.00 (1.45 to 2.55) | <0.0001 |
| To discuss cardiac risks among people who use cocaine with or without alcohol | 2.91 | 4.18 | 1.27 (0.65 to 1.89) | <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**

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**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.
Sick or Not Sick? Teaching Medical Students to Identify Patient Acuity and Prioritize Tasks

Adam Payne, Meghan Mitchell, Zoe Listernick, Jenna Fleming, Lindsay Koressel

Background: One entrustable professional activity (EPA) identified by the AAMC is the ability to recognize a patient requiring urgent or emergent care and initiate evaluation and management. The critical skills in residency of task prioritization and acuity recognition are rarely explicitly taught in undergraduate medical education.

Educational Objectives: We created a simulation-based mastery learning (SBML) curriculum for senior medical students targeting key aspects of EPA 10 including task prioritization, evaluating clinical changes, and management.

Curricular Design: A group of clerkship directors and educators created a SBML “sick or not sick” curriculum for fourth year students. After a literature review, a group of experts used a modified Delphi approach to create an ideal performance checklist. A second group then used the Mastery-Angoff method to set a minimum passing standard for the checklist which was employed to assess student performance in a simulation baseline assessment (BA). For the BA students were presented triage information on three patients and had to choose which required attention first. After managing the patient, they selected the next most urgent patient to see. During each encounter, students received pager notifications about other patients that required triaging. After the BA, students completed an interactive asynchronous module designed by the facilitators with clinical scenarios and a multiple choice exam. Students then participated in an in-person workshop consisting of a didactic portion and facilitated simulation with rapid cycle deliberate practice. The final portion of the curriculum was a post-test simulation structured like the BA.

Impact: Initial implementation was successful. In the initial pilot, all participants identified the curriculum as helpful and recommended its use. Next steps include a larger pilot to assess effectiveness, adding varied simulated cases, and embedding it within the fourth year curriculum.

Emergency Physicians Evaluation of Second and Third Trimester Pregnancy Using Point of Care Ultrasound: A Pilot Study

Reshma Sharma, Mitchell Guedry, Jillian Davison, Steve Leech, Anna Harper, Max Trojano

Introduction/Background: Emergencies in the second and third trimester of pregnancy can be life threatening. With implementation of protocols that prioritize triaging patients towards obstetric hospitals rather than emergency departments, emergency medicine physicians encounter fewer of these critical cases. We considered the need for learners to practice a focused 5 step approach to point of care ultrasound (POCUS) for patients in their second or third trimester to gain rapid answers to clinically important questions.

Educational Objectives: The primary objective of our study was to assess learners’ knowledge and ability to accurately perform a focused POCUS on second and third-trimester pregnancies before and after instruction.

Curricular Design: This workshop offered both lecture and hands-on training on obtaining the five components of second and third-trimester POCUS: assessment of fetal presentation, fetal heart rate, fetal biometry, placental location, and evaluation of amniotic fluid volume. After a brief didactic presentation, learners were divided into 3 stations: hands-on training, two oral board style cases, and a whiteboard talk to reiterate the important components of second and third-trimester POCUS. Learners completed pre- and post-session assessments assessing comfort and medical knowledge.

Results: 21 residents participated in our workshop. Results are reported as mean, (95%CI). Learners were able to identify 2.6 (2.1-3.1) of the 5 components of the US protocol prior to instruction, vs 4.7 (4.4-5.0) after instruction. Learners’ confidence in performing and interpreting the US protocol improved from 3.65 (2.54-4.76) to 7.86 (6.60-9.12) on a 10-point Likert scale. Finally, learners’ knowledge as measured with 5 clinical questions on the pre-and post-quizzes improved from 3.3 correct (2.8-3.8), to 4.7 (4.4-5).