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Implementation of Foundations of Emergency Medicine Cases Through High Fidelity Simulation for PGY-1 EM Residents

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data we know that our method was inadequate for skill retention in the complex environment. This enables us to continue curriculum development this year incorporating more repetition in a complex environment.

Table 1. Bag-valve-mask ventilation checklist.

BVM Ventilation Check List			
Step	Skill	Score	
Opening remarks will need to be clear that we want them to put in an OPA. Something like: You find a victim in this hospital bed who is unresponsive and you are assigned airway. You need to assess the airway, use an OPA, and use a BVM			
1	Call for Help	2	1 0 N/A
2	Attach the mask to wall oxygen and turn it all the way up to 15	2	1 0 N/A
3	Establish position directly above the patient's head	2	1 0 N/A
4	Place the mask on the patient's face using the bridge of the nose as the guide with the most narrow portion of the mask on the bridge of the nose (bottom of the mask should not be past the chin or on the bottom lip)	2	1 0 N/A
5	Using a two handed technique and either the Thenar Eminence or the E-O technique		
5a	Thenar Eminence (thenar eminence and thumb of both hands are placed on the top of the mask while the remaining fingers of both hands perform jaw thrust under the angle of the mandible)	2	1 0 N/A
5b	E-O technique (place the neck of the mask between the webs between the thumbs and index fingers of both hands. Simultaneously, chin lifting should be performed with the other fingers of both hands.)	2	1 0 N/A
6	Open the airway by performing a head tilt and chin lift by extending the neck and lifting at the mandible pressing the face to the mask	2	1 0 N/A
7	Squeeze the bag to give a breath over 1 second and assure air entry (watching chest rise, listening for breath sounds, End-Tidal CO2)	2	1 0 N/A
8	Question the student (or observe them for accuracy): What is the rate of breaths for an apneic adult patient? (6-10 breaths/minute)	2	1 0 N/A
9	At some point the student should place an OPA without prompting. Note they size the OPA (tip of OPA at corner of mouth and phalange at angle of mandible)	2	1 0 N/A
10	Insert OPA with either technique:		
10a	With the C shape facing up and rotating it 180 degrees as it is advanced until the phalange is flush with lips	2	1 0 N/A
10b	With tongue blade assist and insert directly with C shape facing down until the phalange is flush with lips	2	1 0 N/A

Score Key: 2 = Done Correctly 1 = Done Incorrectly 0 = Not Done N/A = Not Applicable

Table 2. Results of students' grades.

BVM Ventilation Check List Skill	% Done Correctly
1. Call for Help	100%
2. Attach the mask to O2	65%
3. Establish Position at Patient's Head	73%
4. Place the mask correctly	99%
5. Use a two-handed technique	76%
6. Open the airway	82%
7. Squeeze the bag	43%
8. Use correct rate	40%
9. Place the OPA, after sizing	19%
10. Correct OPA technique	48%

35 A Novel Social Emergency Medicine Curriculum: An Alternative to Lecture-Based Didactics

Ashley Vuong, Hannah Janeway, Amanda Amen, Lauren Fryling, Alexander Garrett, Jaime Jordan, Natasha Wheaton

Learning Objectives: We sought to create a Social EM

rotation to improve residents' understanding of structural vulnerability, health inequity, and social determinants of health and improve their ability to address barriers to care and social needs in the emergency department.

Introduction: Social determinants play an important role in patient health. While many Emergency Medicine (EM) residency programs agree that Social EM is an important component of education, few programs have formal curricula addressing Social EM. Social EM education varies widely from program to program.

Objective: We sought to create a Social EM rotation to meet the needs of EM residents. This rotation would allow dedicated time to learn Social Medicine skills and familiarize residents with hospital and community resources. The main objective is to improve residents' understanding of structural vulnerability, health inequity, and social determinants of health and improve their ability to address barriers to care and social needs in the emergency department.

Curricular Design: We created a novel, two week Social Emergency Medicine rotation, exposing residents to a variety of Social Emergency Medicine concepts. Residents rotate with community organizations including a street medicine team, medication-assisted treatment clinics, a harm-reduction needle exchange, a medical asylum clinic, a food pharmacy, and a trauma recovery center. These activities are paired with didactics covering topics such as substance use disorder, immigration health, food insecurity, violence intervention, homelessness, incarceration, LGBTQA+ and gender identity, language equity, race and culture, financial insecurity, and healthcare access and coverage.

Impact/Effectiveness: Our novel Social EM rotation was successfully implemented. Five residents have completed the rotation. Residents reported increased knowledge about resources for housing, substance use, immigration rights, and food insecurity and also were more comfortable addressing gender diversity. Residents particularly valued performing asylum work in Tijuana and their street medicine experience. In the future, similar rotations can be implemented at other residency programs through partnerships with local organizations.

36 Implementation of Foundations of Emergency Medicine Cases Through High Fidelity Simulation for PGY-1 EM Residents

Jessica L. Beadle, Kathleen A. Murphy, Leila Getto

Learning Objectives: Describe the process of converting "Foundations of Emergency Medicine" cases to high-fidelity simulation scenarios, implement cases for PGY-1 EM, EM/IM, and EM/FM residents, and survey simulation specialists and residents regarding the resources required and the curriculum's educational value.

Introduction: Foundations of Emergency Medicine (FoEM) is an open-access curriculum that involves case-based table-top exercises, and is an established part of our weekly conference. Case-based simulation has been shown to improve clinical knowledge and comfort levels in the care of critical patients. The educational need for this pilot study arose from PGY-1 residents’ requests for more time to run cases in our simulation center.

Educational Objectives: To convert FoEM cases into high-fidelity simulation cases to enhance PGY-1 residents’ learning experience, and to evaluate the feasibility of the process.

Curricular Design: Simulation specialists converted 18 FoEM cases to high-fidelity simulation cases. A total of 17 PGY-1 EM, EM/IM and EM/FM residents performed FoEM simulation cases on 6 separate conference days during the 2020-2021 academic year in lieu of the standard FoEM table-top exercise. Three cases were run per session. Each case was 10 minutes long followed by a 20 minute debrief by EM faculty. Residents were surveyed to gauge educational satisfaction and clinical confidence. Simulation specialists were surveyed to identify resources required and to ascertain barriers to implementation.

Impact/Effectiveness: The post-implementation surveys had an overall response rate of 70%. All residents agreed or strongly agreed that performing FoEM through simulation was a positive addition to the curriculum and the information and skills were applicable to patient care. The majority reported that scenarios helped to solidify foundational knowledge and confidence in caring for patients. Simulation specialists reported taking 1-4 hours to prepare a case. Challenges included predicting learner decisions and interpreting the cases as a non-physician. We conclude that FoEM cases can be converted to simulation with reasonable effort and are a valuable addition to the curriculum. We have continued this curricular innovation in the 2021-2022 academic year.

Table 1. Resident survey results, 5-point Likert Scale responses.

Resident type	Positive addition	Solidified knowledge	Increased Confidence in patient care	Increased Confidence in team communication	Applicable to caring for patients	Frequency of FoEM in simulated setting
Combined resident	Agree	Agree	Agree	Agree	Agree	Just right
Categorical resident	Agree	Strongly agree	Strongly agree	Strongly agree	Agree	Not enough
Categorical resident	Agree	Strongly agree	Agree	Neither agree nor disagree	Agree	Just right
Combined resident	Strongly agree	Strongly agree	Agree	Agree	Agree	Not enough
Combined resident	Agree	Neither agree nor disagree	Neither agree nor disagree	Disagree	Agree	Just right
Categorical resident	Agree	Agree	Agree	Disagree	Agree	Not enough
Categorical resident	Strongly agree	Strongly agree	Agree	Agree	Strongly agree	Just right
Combined resident	Agree	Agree	Neither agree nor disagree	Neither agree nor disagree	Agree	Just right
Combined resident	Agree	Agree	Agree	Neither agree nor disagree	Agree	Just right
Categorical resident	Agree	Agree	Disagree	Disagree	Agree	Just right
Categorical resident	Agree	Agree	Agree	Agree	Agree	Just right

Table 2. Simulation specialist survey open-ended responses.

What role did you play in implementing the Foundations of Emergency Medicine cases in the VEST center?	Length of time to convert case	Challenges	Describe Challenges	How many simulations specialists needed?	Number of simulation specialists appropriate	Do you think you needed more or less staff members to run the session?
My primary role is to assist in the set up and clean up of the simulation rooms for the session.	N/A	No		4-5; 3 to run the simulators and 1-2 for support or confederates.	Yes	
Simulation Specialist, may play the role of the manikin, role of confederate if staff available. Convert cases into sims	1-2 hrs	Yes	what route will the learners take	min of 3	No	more confederates in the room would help
Simulation Specialist to run the manikin or participate as a RN assisting the learners. Also participate in the pre-brief and debrief		Yes	The cases are not always in an easy to understand format when you are not a EM physician.	2	Yes	
simulation specialist, RN	N/A	No			3	Yes
Primary Design and Implementation Lead for Cases	Large range of time to develop and test cases budget for cases is usually 4 hours of building sim with 90 minutes to test sim	Yes	Challenges can be verifying that cases are reflecting current practice, including how cases are run in large Trauma Center. Other challenges include how to pare down case that is running over hours to 15 minutes, or case that is designed for docs taking the boards, to PGY1	Generally 2 or 3 per cases, when one case is running there will be 4 team members, when multiple cases are running, happy to have 2 per room	No	In the instance of running a high fidelity ED case, we need 4 or 5 ideally, 1 to run manikin and be voice, 1 to be family member, 1 to bedside RN, another to be respiratory or other ancillary position. 5th to have oversight to make sure all the parts come together.

37 “Prez Drillz” for med students: An online workshop to practice oral case presentation skills through peer-feedback, repetition, and application

Alexis del Vecchio, Anthony Seto, Paul Bryan, Logan Haynes, Nicole Ertl

Learning Objectives: Students at our university identified low confidence in presenting oral cases and a desire for more practice. We created a workshop, “Prez Drillz”, to address this. We will describe an educational model for medical students to practice oral case presentations online and discuss its impact.

Introduction: Presenting clinical cases orally is a core skill for medical students, a task some find intimidating. Oral case presentations may influence preceptors’ impression of students, as it highlights learners’ cognitive and non-cognitive attributes. Students at our university identified low confidence in presenting oral cases and a desire for more practice. We created a workshop, “Prez Drillz”, to address this.

Curricular Design: Before the workshop, students viewed a podcast on oral case presentation structure. 154 second-year students participated in the 2.5-hour workshop, hosted via Zoom videoconferencing, with 1 physician preceptor for 4-5 medical students. During the workshop, students first listened to a 5-minute case audio, outlining patient history and examination findings. Students delivered an oral case presentation, based on information extracted. Self-reflection and feedback from peers and preceptor followed. Students then practiced delivering a second oral case presentation by implementing the feedback received. Students completed a retrospective survey on their agreement (1=strongly disagree; 5=strongly agree) with self-efficacy