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A Simulation-Based Program of Assessment for Emergency Medicine Milestones

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Authors

Leung, Cynthia
Yee, Jennifer

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scenarios in a standardized clinical setting.

Educational Objective: To develop a longitudinal program for assessment of EM Milestones in residents using high fidelity simulation. To describe the development of a longitudinal program for assessment of EM Milestones in residents using high fidelity simulation.

Curricular Design: Residents participate in two simulation assessments per year. In each session, residents concurrently manage three patients with different clinical scenarios which have been developed to allow assessment of specific EM Milestones. A checklist of milestone-based behavioral anchors is utilized to determine proficiency levels for patient care milestones specific to each case. After each simulation session, a report is generated for each resident that details the milestone levels attained based on the behavioral anchors (Figure 1). Milestones are tracked throughout the duration of the program.

Impact: Two classes of residents (34 total) have participated in the simulation program. Levels were assigned for patient care milestones 1-9, 11, and 13. Most residents attained milestone levels appropriate for level of training. Although additional analysis is still needed to validate these assessments for milestone reporting, the information in the milestone reports has already made a big impact on our trainees. Analysis of aggregate data has identified areas for curricular improvement to share with residency leadership. Individual residents have been able to identify deficiencies during the simulations and have used the reports as a stimulus for performance improvement.

Table 1.

Resident	Brutus Buckeye	Individual completed	Program % completed
Cases	1)ovarian torsion, 2) abscess with cellulitis, 3) concussion		
Patient	Item (milestone level)		
#1	Recognizes abnormal VS (1.1)	Y	100%
	Performs a primary assessment (prioritizes essential elements of H&P) on a critically ill patient (1.2, 2.3)	Y	92%
	Consult obgyn (1.3)	Y	91%
	Orders a transvaginal ultrasound (3.2)	Y	95%
	Created a Ddx that is prioritized by likelihood and included appropriate emergent diagnoses (4.2)	Y	94%
	Asked medication allergies (5.1)	N	46%
	Administers analgesia (5.2, 5.3, 11.2)	N	84%
	Re-evaluates patient, monitors that interventions are performed, evaluates effectiveness of therapies (6.1, 6.2, 6.3)	Y	87%
	Admits patient to appropriate level of care (operating room) (7.3)	Y	87%
	Manages a single patient amidst distractions (8.1)	Y	100%
	Effectively task switches between different patients (8.2)	Y	88%
#2	Performs a focused H&P which effectively addresses the chief complaint (2.2)	Y	94%
	Orders appropriate diagnostic studies (bedside ultrasound) (3.2)	Y	88%
	Describes I&D technique (9.2)	Y	100%
	Asked medication allergies (5.1)	N	52%
	Selects correct medication accounting for allergies (5.2)	Y	76%
	Discharges patient with appropriate return precautions (7.3)	Y	67%
	Gives instructions for outpatient follow up (7.2)	Y	88%
#3	Performs a focused H&P which effectively addresses the chief complaint (2.2)	Y	65%
	Practices cost effective use of diagnostic studies (3.3)	Y	71%
	Asked medication allergies (5.1)	N	56%
	Selects correct medication accounting for allergies (5.2)	Y	87%
	Discharges patient with appropriate return precautions (7.3)	Y	94%
	Gives instructions for outpatient follow up (7.2)	Y	53%
	COMMENTS: Brutus appropriately recognized concern for ovarian torsion, but was slow to order appropriate diagnostic testing and GYN consult. The dose of morphine ordered was not adequate to provide sufficient pain control. He consistently forgot to ask allergies prior to ordering medications. The Ddx was well prioritized and included appropriate emergent diagnoses. Brutus gave excellent return precautions to both discharged patients.		

8 Advancing Communication Excellence at Stanford (ACES) Emergency Medicine Residency: A Curriculum for Interns

Alvarez A, Kline M, Passaglia J, Weimer-Elder B / Stanford Emergency Medicine Residency; Stanford University Hospital

Background: With a strategic focus of developing a relationship-centered culture, the EM residency leadership, EM interns and the Physician Partnership Team in Patient Experience designed an innovative pilot using formative and summative evaluation to identify how best to deliver knowledge, and practice 3 relationship-centered communication (RCC) skills. A series of 4 workshops and individualized coaching observations were part of the design. We proposed a curriculum for EM interns focusing on relationship-centered care using the Advancing Communication Excellence at Stanford (ACES) initially designed for Stanford faculty.

Objective: The primary objective was to learn how best to engage EM interns to learn and adopt the 3 foundational RCC ACES skills. The second objective was to design a reproducible EM RCC curriculum within the residency program based on time constraints and entry-level cognitive demands.

Curricular Design: We developed a curriculum for EM interns, supplemented by individualized-coaching and asynchronous learning using the flipped-classroom model. We used intern-driven scenarios and role-playing techniques to demonstrate and emphasize key communication skills. We used online surveys and text check-ins to assess the effectiveness and further iterate this learner-centered curriculum. The first 3 sessions included a reflection and check-in, demonstration of a skillset and small group practice with an ACES coach. Bedside clinical EM coaching was scheduled with each intern between sessions 3 and 4. Session 4 will integrate all 3 skills with Standardized Patients and will be recorded and used in the final coaching session.

Impact/Effectiveness: We have successfully integrated the RCC into the EM intern curriculum over 3 in-person, 60-90 minute workshop sessions and individualized clinical coaching. The impact will be assessed through a learner self-assessment and coaching assessment. We plan to scale this to the entire EM residency.

9 An Eye Model for Practicing Ocular Exam Skills

Kim E, Humphries R / University of Kentucky

Introduction/ Background: Intraocular pressure is a critical part of the eye exam in diagnosing ocular emergencies such as

pre- and post-surveys as assessments of content acquisition and session effectiveness.

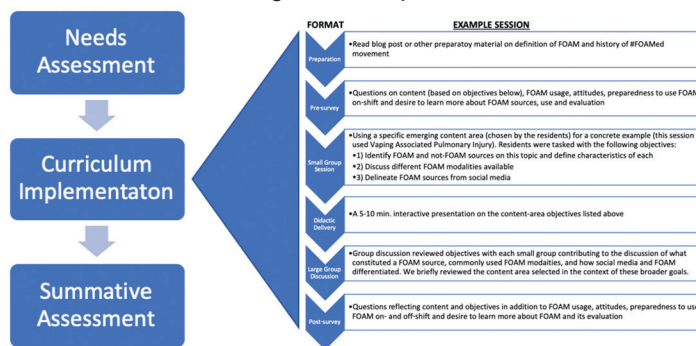
This curriculum has been piloted at our institution with success. Residents unanimously expressed satisfaction with the session format, felt more comfortable using FOAM sources clinically in real-time, and expressed desire for further knowledge in the area.

Immediate next steps include completion of our institutional pilot and development of a summative tool to be used clinically to demonstrate effectiveness and application of the FOAM curriculum. Long term, we plan to expand our innovative curriculum and add assessments to measure its effectiveness.

Table 1. Instructional Design: Session Topics and Goals.

1. Defining FOAM
Define FOAM vs not FOAM, FOAM vs Social Media, Types of FOAM modalities
2. Impact, Access, and Use Of FOAM
Discuss use of FOAM in EM and studies on FOAM use, High-, Medium- and Low-impact FOAM
3. Assessment Of FOAM
Introduce concept of Validity and Evidence-Based Medicine and relation to assessment of primary literature
4. Evaluation Tools in FOAM
Evaluate assessment tools applicable to FOAM including quality measures, peer-review and Social Media Index
5. Didactic Application Of FOAM
Demonstrate integration of FOAM sources into self-study and didactic group learning sessions
6. Clinical Application and Real-Time Use Of FOAM
Demonstrate application FOAM sources to clinical questions and to real-time clinical scenarios
7. FOAM Creation and Distribution
Introduce process of creation of FOAM, legal implications and distribution
8. FOAM in Academic Medicine
Identify appropriate use and citation of FOAM sources in presentations; Reporting of FOAM works in curriculum vitae for promotion

Table 2. Curriculum Design and Sample Session Format.



6 A Residency Driven Emergency Medicine Wellness Initiative

Robak M, Romeo M, Worthing J, Tsao J / NYU/Bellevue Emergency Medicine

Introduction: Burnout has become widely prevalent and has been linked to physicians leaving the workforce, reduced patient satisfaction, and medical errors. EM residents are at

particularly high risk. To combat this issue, the NYU/Bellevue EM Residency program formed a task force with the mission of creating a culture that promotes individual and group wellbeing as well as nurturing workplace enjoyment, creating outlets for stress mitigation, and allowing a forum to bring co-workers together to cultivate a community through new relationships, collegiality, and peer support.

Objectives: The task force proposed the creation of a Residency Wellness Committee that was approved and is now fully funded by the Emergency Department with a budget of \$24,00 annually. The Committee’s goals include: transformation of attitudes towards mental health, enhancing self-awareness and reflection, personal growth and emotional support. Enhancing resident wellness by transforming attitudes towards mental health, enhancing self-awareness and reflection, promoting personal growth and providing emotional support

Design: Within the hospital, the Committee promotes multiple ongoing endeavors. These include Project SafeSpace, closed-door meetings between mental health professionals and residents; Resiliency Round, a series of didactic sessions focused on mindfulness techniques; the Exceptional Events Reporting system, a system to highlight excellent resident medical care; and the Peer Support Network, a multi-disciplinary group of providers trained in supporting practitioners after psychologically taxing cases.

Beyond the hospital, the Wellness Committee strives to provide an outlet for mental and physical health as well as community-building, including monthly fitness and cultural events, as well as seasonal outings to take advantage of the region.

Impact: The Wellness Committee surveyed physicians within the ED on the impact of the wellness committee. 87% of respondents either strongly agreed or agreed has improved residency wellness. Qualitative feedback was also overwhelmingly positive, largely expressing appreciation of the Committee’s efforts.

7 A Simulation-Based Program of Assessment for Emergency Medicine Milestones

Leung C, Yee J / Ohio State University

Background: EM residency programs are required to report milestone levels for all residents biannually, though there is no consensus on the best methods for assessing milestones. Traditional methods of assessing clinical competence are often confounded by variability of patient presentations and the clinical environment. Assessing management of critically ill patients may also be hindered by infrequent incidence of pathology. High fidelity simulation may overcome these issues by offering highly reproducible