

strong evidence all incorporated role-play or simulation for teaching. The most evidence-supported frameworks for verbal de-escalation content are the Ten Domains of De-escalation by the American Association for Emergency Psychiatry and the De-escalating Violence in Health-care Settings Trainer Manual by the International Committee of the Red Cross.

Conclusions: Available evidence suggests that the most effective way to teach de-escalation within health professions education is through a combination of lecture, discussion, and active skills practice.

53 Rapid Development of a Novel Faculty Development Curriculum Utilizing Junior Faculty as Primary Authors

Heather Brown, Amanda Stratton, Stanley Hassinger

Background: Academic faculty development can vary in scope and perceived utility. The ACGME Common Program Requirements mandate that faculty pursue faculty development annually. Timely and specialty-specific faculty development is important for ensuring academic success for junior faculty and fellows and should be incorporated early in their careers. While creating a specialty and site-specific curriculum is likely most beneficial to learners, the process can be laborious and daunting.

Educational Objectives: Rapidly create and deploy an effective faculty development curriculum for EM fellows and junior faculty to prepare them for successful careers in academic emergency medicine.

Curricular Design: Eight senior faculty developed a list of high-yield topics for junior faculty, the most useful decided by consensus (table 1). To promote independent learning and collaboration, five junior faculty and two EM fellows were assigned as primary authors for each of the topics according to their interest. A senior faculty considered an expert in the area was assigned as a mentor. Topics were presented in seminar format at a peer review session with all participants present. This stimulated valuable discussion including additional topics for the future.

Impact: Participants took an electronic survey with an 86% response rate (table 2). Responses strongly support the curriculum’s importance and effectiveness. Responses particularly reflect the effectiveness of junior faculty as primary authors with all junior faculty strongly agreeing that creation of the modules improved their knowledge. Since curriculum deployment, new educational strategies are being employed by faculty and there is an increased emphasis on academic promotion. The curriculum is now being delivered to fellows and new-hire faculty in quarterly modules, with each participant creating an additional module to add to the curriculum.

Table 1. Curriculum topics and associated deliverables.

| Topic | Deliverables |
|--|---|
| Navigating the IRB and protocol development | <ul style="list-style-type: none"> <input type="checkbox"/> Complete Citi Training <input type="checkbox"/> Register for IRB account <input type="checkbox"/> Request redcap account |
| Writing and submitting a scientific manuscript | <ul style="list-style-type: none"> <input type="checkbox"/> Identify relevant journals for research topic |
| Administrative skills | <ul style="list-style-type: none"> <input type="checkbox"/> Quality improvement project sign up |
| ACGME faculty requirements and tenure track criteria | <ul style="list-style-type: none"> <input type="checkbox"/> Review CV <input type="checkbox"/> Apply for academic appointment |
| Leadership | <ul style="list-style-type: none"> <input type="checkbox"/> Hospital committee sign up |
| Teaching outside the box | <ul style="list-style-type: none"> <input type="checkbox"/> Lecture development |
| Effective Mentorship/Giving effective feedback | <ul style="list-style-type: none"> <input type="checkbox"/> Identify mentor <input type="checkbox"/> Write goals for mentorship |
| Additional topics to add, as recommended by the participating faculty and fellows: <ul style="list-style-type: none"> - Journal peer review and editing - Grant writing - Quality improvement - How to give a great presentation | |

54 Cost-Effective Transesophageal Echocardiography Training on Cadavers with Nonfunctional Transducer

Christopher Clark, Nigel Bowe, Rupinder Sekhon, Caroline Dowers, Andrew Park, Abigail Brackney, Erin Cuddeback

Background: Emergency providers (EPs) face challenges in performing transesophageal echocardiography (TEE) due to insufficient training and high equipment costs. ACEP guidelines for TEE credentialing include verification of competency of transthoracic echocardiography (TTE) and 4-6 hours of TEE didactics followed by 10 supervised transducer insertions on live patients or high-fidelity simulators. A structured course for EPs to meet these standards can increase credentialing and overall use of TEE.

Educational Objectives: Participants will recognize indications, contraindications, and limitations of TEE with identification of appropriate views. Participants will then demonstrate the ability to place a TEE on a high-fidelity simulator and with use of a clinically nonfunctional transducer on cadavers. With course completion, participants will earn credentialing in accordance with ACEP guidelines.

Curricular Design: TTE proficiency is verified before course participation. Learners then engage with pre-lecture modules covering essential TEE concepts. Participants then practice TEE using a high-fidelity simulator, analyzing 10 cases with common pathologies or normal findings. Next, hands-on experience placing a TEE transducer on cadavers. Following this, participants complete an Objective Structured Clinical Examination (OSCE) with 10 proctored exams. The session concludes with a debrief.

Impact/Effectiveness: The course was implemented at an academic emergency center in June 2024. All participants achieved a score of 80% or higher with the OSCE, with most

attaining a perfect score of 100%. Use of a nonfunctional transducer cuts costs by eliminating the need for sterilization and avoiding damage to active probes. The cadaveric model improves transducer placement and manipulation while approximating physiological observations more closely than manikins. This course aligns with ACEP guidelines, aiming to help more EPs gain credentialing with a cost-effective approach and enhance the use of TEE, ultimately striving to improve patient outcomes.

55 The ITE House Cup: A Game-Changing Approach to Resident Board Preparation

Lauren Lamparte, Edward Ng, Shana Ross

Background/Objective: The In-Training Examination (ITE) House Cup, an intra-residency competition, was designed to enhance morale, encourage study habits, and improve ITE scores. Based on a needs assessment, residents attributed their lower ITE scores to disengagement in studying, which we hypothesized was due to a mental health decline linked to cold winters leading up to the ITE. The majority of residents indicated they would be more inclined to study in groups, prompting the development of the ITE House Cup.

Methods: Residents were randomly divided into 6 “houses”, balanced across classes. Each house was paired with an Associate/Assistant Program Director (APD) “professor” for encouragement. The houses obtained points by engaging in study activities including: logging daily questions sets, participating as a house in attending led board review jeopardy, participating in “Board and Hungry” lunch sessions designed to teach test taking strategy, and participating in house study sessions outside of structured residency time. The competition was embraced by residents, APDs, and core faculty with strong participation. After the ITE exam, prizes were awarded and prestige was earned.

Results: As a result of this education innovation, 76% of residents reported an increase in prioritization of studying compared to only 39% in previous years. Almost 50% of residents attributed this increase in study habits directly to the ITE House Cup’s group study activities, and 88% stated they felt more supported by peers and faculty to do well on the ITE exam. Their satisfaction with the ITE House Cup was rated highly, with 73% stating that participation in the Cup improved their mental health. Despite these improvements, ITE exam scores remained largely unchanged, falling within one standard deviation of previous scores and close to national averages.

Impact: We believe that with the continued encouragement of collaborative studying, we will see exam scores trend upward. We plan to implement the ITE House Cup again and believe other residents would benefit from this gamified curriculum.

56 Pediatric Ultrasound for Lumbar Puncture - A Simulated Task Trainer for Emergency Medicine Residents

Thomas Sanchez, Jaron Kurian, Edwin Davis, KeriAnne Brady, Hannah Park, Richard Shin

Background: Pediatric patients, particularly neonates, are challenging procedures for emergency medicine residents due to anatomical differences, the need for precision, and perceived high stakes. Mastery of LP technique in this population is critical multiple attempts increase the risk of complications and leads to heightened stress for the patient, parents, and clinicians. Given the limited availability of real-time practice opportunities, an anatomically accurate training model offers a valuable solution. There are high cost/high fidelity simulated task trainers that are available commercially, but no low cost/high fidelity models. Creating this model allows residents to develop the tactile skills and spatial awareness necessary to improve procedural confidence. By reducing reliance on trial-and-error learning in real patients, this model can enhance first-attempt success rates.

Objective: Our aim was to develop a simulated model of pediatric spinal anatomy using inexpensive, readily available materials. By creating an open-source, reproducible, and durable model, we sought to provide an accessible tool for effective teaching and skill familiarization for all emergency medicine residents.

Design: We constructed the model using ballistic gel and corrugated tubing from standard Emergency Department nebulizer mask kits. The ribbed structure of the tubing effectively simulates vertebrae and intervertebral spaces. The tube was sealed and filled with a mixture of water, starch, and ultrasound gel. This prepared structure was then embedded within the ballistic gel, creating a realistic and ultrasound-compatible representation of pediatric spinal anatomy.

Effectiveness/Impact: The model was reviewed and approved by ultrasound faculty prior to integration into a scheduled resident conference day. Following the session, 100% of surveyed residents reported that the model was an effective teaching tool and that it improved their confidence in estimating distance, angle, and positioning for primary needle puncture. Our goal is to enable all emergency medicine educators to construct this model, enhancing resident education in evaluating pediatric spinal anatomy with POCUS and supporting first-attempt success in clinical settings.