



Figure 1.

15 Congratulations! You Are an MD, But Are You Ready for the ER?

Crawford S, Monks S, Solomin D, Greer V / Texas Tech University Health Science Center, El Paso, TX

Background: Emergency medicine (EM) faculty were tasked with implementing the Accreditation Council for Graduate Medical Education (ACGME) Milestones Project for the evaluation of resident physicians. All incoming residents are expected to function at Level 1 proficiency. Many of the milestones can be assessed in a simulation center, a safe environment for teaching and evaluation.

Educational Objectives: At the end of the EM orientation month, interns would be able to recognize and treat five common emergency department (ED) complaints at a minimum Level 1 proficiency. In addition, faculty would have more direction for incorporating the milestones into the existing curriculum.

Curricular Design: Five common ED complaints were each developed into five cases to be treated by groups of 2-3 interns. Headache presentations included migraine, post lumbar puncture headache, meningitis and both subarachnoid and subdural hemorrhage. Shortness of breath presentations included asthma, pulmonary embolus, congestive heart failure, pneumothorax, and pneumonia. Chest pain presentations included nonspecific chest pain, ST-elevation myocardial infarction, aortic dissection, herpes zoster, and gastroesophageal reflux disease. Abdominal pain presentations included cholecystitis, appendicitis, abdominal aortic aneurysm, pancreatitis, and small bowel obstruction. Pelvic pain/bleeding presentations included ovarian torsion, ectopic pregnancy, pyelonephritis, pelvic inflammatory disease, and fibroids. A faculty member ran each case while the remaining interns viewed and scored the assigned groups. Scoring rubrics included 15 milestones to indicate Level 1 or 2 proficiency, or failed to meet Level 1 criterion.

Impact/Effectiveness: Interns were assessed on their ability to perform a history, physical exam, initial evaluation/

management, and create a differential diagnosis/plan. Twelve interns participated; one group failed a case while the majority exceeded Level 1 proficiency. Assessing milestones in Year 1 is essential for both the intern and faculty to properly gauge the needs of the class and the individual. This also allowed for a debriefing discussion of local practice and hospital guidelines.

Table 1. Milestone proficiency scoring form.

Presentation: Case:	Group participants	Proficiency level (0, level 1, level 2, or N/A)
Milestone:		
PC 1: Emergency stabilization		
PC 2: Focused H&P		
PC 3: Diagnostic studies		
PC 4: Diagnosis		
PC 5: Pharmaco-therapy		
PC 6: Observation and reassessment		
PC 7: Disposition		
PC 8: Multi-tasking		
PC 9: Procedures-anatomy and physiology		
PC 11: Anesthesia		
PC 12: Ultrasound		
PROF 1: Professional values-interest		
PROF 2: Timelines and reporting		
ICS 1: Patient communication		
ICS 2: Team management		

H&P, history and physical; ICS, interpersonal and communication skills

16 Do You Come Here Often? “Speed-Advising” for Medical Students Matching in Emergency Medicine

McGrath J, Way D, Kman N, Greenberger S, Bachmann D, Gorgas D, Hill M, Martin D / The Ohio State University Wexner Medical Center, Columbus, OH

Introduction/Background: The number of 4th year medical students pursuing emergency medicine (EM) residency is increasing. Group sessions provide information about the match program in EM. However, students request personal meetings with multiple EM educators to establish relationships and ask individual questions. Meetings are time consuming and logistically challenging for faculty and students.

Educational Objectives: We implemented a novel “speed-advising” session (SAS) for students pursuing EM residency.

Curricular Design: Two, 2 hour SASs were held in August. Advisees completed a pre-session form and met for 8 minutes with up to 7 EM education faculty in proximal private offices to facilitate rotation. Students and faculty were surveyed regarding the format. Institutional Review Board exemption was granted.

Impact/Effectiveness: Of 26 students pursuing EM, 23 (89%) participated in the SAS. The post-session survey was completed by 74% of students (17 of 23) and 100% of faculty (7 of 7).

Students met with an average of 6.25 faculty and over half were new to the students. All students found the SAS to be informative, an efficient use of time, and helpful to meet multiple faculty. Almost all found it to be fair and objective (94%) and were comfortable asking personal questions (88%). Students desired longer time intervals with each faculty (71%), but 77% felt their questions were answered adequately. Common discussion topics included: to which programs and how many to apply, likelihood of matching in EM, standardized letters, grades, United States Medical Licensing Examination scores, and career goals. Faculty reported no prior interaction with 60% of advisees. Fewer faculty than students preferred longer time intervals (43% vs. 71%) and 86% preferred speed-advising to traditional meetings. Though optimal structure and time allotment should continue to be explored, speed-advising allows students efficient interaction with multiple EM educators while addressing individual concerns about matching in EM.

17 Does the Extent of Medical Student Reflection Correlate with their Grade in an Emergency Medicine Clerkship?

Leuthauser A, Chary M, Hexom B, Hu K / Mount Sinai School of Medicine, New York, NY

Introduction: Many medical schools have begun to incorporate self-reflection exercises into their curricula. It is thought that these exercises help build a deeper understanding of material, and better academic performance. Students in clerkships are often reflect upon their performance but it is unclear if the exercise leads to better academic performance.

Objectives: The goal of this study was to evaluate the reflection of students in a one month emergency medicine (EM) clerkship to determine if there was a correlation between the degree of reflection and their final grade.

Methods: We conducted a retrospective case series, analyzing the performance and reflective statements of 116 students who participated in an EM clerkship at two clinical sites from 2013-2014. After each shift, an attending EM physician evaluated the student and the student could complete an optional reflection section, which was free text. We analyzed the correlation between the final grade, expressed in quartiles, and the degree to which the student completed

the reflection using the Freeman-Halton extension of Fisher's exact test. A linguistic analysis was also performed to analyze the choice of words in the students reflection.

Results: Of the 145 possible records, 116 were included for analysis. The other 29 were excluded as they were visiting students. Two EM physicians graded the rate of completion of the self-reflection, demonstrating moderate agreement in their assessment (Cohen's kappa=0.55). The assessments of both raters were significantly correlated with final grade ($p=0.006$ and $p=0.008$). A linguistic analysis showed that the students with the lowest grades in the course wrote the least amount of reflection.

Conclusions: There is a correlation between the degree and quality of reflection with final grade in an EM clerkship. In future, as faculty perform the evaluations, they can encourage more insightful reflection from the students to improve their performance in the clerkship.

18 Effectiveness of Case-Based Learning Versus Traditional Models on Knowledge Retention

Einstein N, Rezaie S, Ramos R, Muck A / University of Texas Health Science Center at San Antonio, San Antonio, TX

Introduction/Background: Recent course evaluations from medical students and residents have demonstrated the need for medical education evolution; specifically decreasing lecture time while increasing the opportunities for the interactive case-based learning module. The objective of this project was to assess the quantitative impact on knowledge retention conferred by two different styles of medical education presentation; traditional vs. case-based learning.

Educational Objectives: We sought to quantify the effect of two instructional modalities, power point lectures (PPT) vs. case-based learning (CBL) modules on:

- 1) Initial knowledge gained (as measured by same-day pre- and post-curriculum knowledge assessments)
- 2) Knowledge retention (as measured by a post-curriculum exam given at 2 weeks)

Curricular Design: At the start of every Emergency Medicine (EM) block, an EM topic is presented to third year medical students during their orientation. For this project, we selected "An Introduction to Electrocardiography (ECGs)" (e.g., atrial fibrillation, ST segment elevation, tricyclic antidepressant toxicity overdose, Brugada). Every student took a fifteen question pre- and post-curriculum exam to assess their knowledge of ECGs. After two weeks, the students were asked to re-take this exam which sought to assess their ECG knowledge retention stratified by learning module. To date, we have collected data on 60 students.

Impact/Effectiveness: The mean positive change in pre- and post-curriculum test scores were comparable between students who received their instruction via traditional lecture vs. CBL (21%, 18%, respectively). As expected both groups experienced a loss on knowledge retention (e.g., a