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A Novel Standardized Rubric for Medical Student Emergency Medicine Oral Presentations

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Goals included enhancing understanding of the promotions process; improving knowledge of the required educational dossier elements; heightening awareness of the characteristics of a strong dossier; and expanding the number of emergency medicine (EM) dossiers ready for submission.

Curricular Design: We developed a novel format using adult learning theory principles, and team-based and flipped-classroom strategies. Workshop preparation began with brief readings, review of portfolio templates, and document gathering (eg, curriculum vitae [CV], learner evaluations). Monthly two-hour peer-led workshop topics included an introduction to the promotion process; CV preparation; developing an educational portfolio and teaching philosophy; documenting teaching roles in course and faculty development, medical education, and curricular affairs; learner and peer-teaching evaluations; letters; documenting scholarship; and portfolio appraisal. Each session included review of the month's topics and materials, example sharing, discussion and structured time for dossier-preparation work.

Impact/Effectiveness: Ten EM academic-track faculty were eligible to participate. Following session one, two faculty determined that they did not meet promotion criteria and four noted that their body of scholarly work needed further development; all identified specific areas needing enrichment. The remaining four faculty participated in the full program. At completion, two participants had full, submission-ready dossiers. One had a near-complete (since submitted) dossier, and one participant chose to delay submission. All gained understanding of the process, dossier components, characteristics of a strong portfolio, and were able to discern their readiness for advancement. All reported that the program was useful and enjoyable. In sum, peer-mentored academic promotion workshops are an effective way to enhance the dossier-preparation process.

32 Rapid Cycle Deliberate Practice Simulation for Resuscitation Training of Medical Students

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Background: Medical simulation provides an opportunity for students to safely practice critical cases. However, standard simulation with post-event debriefing can overwhelm and frustrate medical students who may lack the skills to successfully complete the case. The novel simulation method of Rapid Cycle Deliberate Practice (RCDP) created by Hunt et al. may eliminate this issue and improve learning and retention. RCDP uses the concept of deliberate practice to allow learners to repeat skills after receiving targeted within-event feedback by instructors. Recent research suggests that RCDP is an ideal method of teaching the algorithms and technical skills of

resuscitation. This research is still in its infancy. Absent are data testing RCDP in medical students. Using the methods below, we aimed to fill this gap by creating a RCDP model for emergency medicine (EM) clerkship students.

Educational Objectives: The objective of using RCDP is to improve proficiency and retention of critical actions and skills while increasing student satisfaction compared to standard simulation.

Curricular Design: We created an RCDP ventricular tachycardia/ventricular fibrillation (VT/VF) simulation case for medical students. We divided the stages of the Advanced Cardiac Life Support (ACLS) VT/VF algorithm into discrete rounds, with each consisting of required critical actions. Faculty would "pause and resume" or "stop and restart" the case to give quick directed feedback. Pause and resume is used when a task has been performed incorrectly. The case continues with students in their same roles. Faculty stop and restart the case when a task is missed, performed out of sequence, or the round has been completed. The round is restarted from the beginning with students in new roles, thus giving everyone a chance to lead. This cycle repeats until case completion.

Impact/Effectiveness: We used this RCDP protocol in place of standard simulation in our EM clerkship. Informal student feedback has been overwhelmingly positive. As teachers, we were able to correct errors and teach ACLS skills in real time. Students incorporated feedback, and their performance improved over the course of the session. By the end, students were able to complete the entire case with minimal correction. Future direction of our work will focus on assessing the long-term retention of skills learned in RCDP simulation.

33 A Novel Standardized Rubric for Medical Student Emergency Medicine Oral Presentations

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Background: Emergency medicine (EM)-specific oral presentations differ from general oral presentations in length, focus, and structure. Although we teach medical students to present differently in the emergency department, there is no established rubric for grading EM-focused presentations. We present a novel rubric for use in EM, derived from a published, validated rubric used in other medical specialties.

Educational Objectives: Our goals were to provide a novel grading rubric for EM-specific medical student presentations, designed to specifically assess for length, focus, and structure; and improve standardization of oral presentation grading and feedback.

Curricular Design: In 2014, Lewin et al. introduced the Patient Presentation Rating tool – a validated rubric for

grading medical student presentations created by a group of medical educators across many core specialties. The tool is comprised of 18 items divided into six sections, with an overall rating at the end. According to the original study, the tool had high inter-rater reliability, and a randomized controlled trial performed during a third-year pediatric clerkship showed that the intervention was significantly better than unstructured presentation feedback. We used this validated tool as a framework to create a rubric for EM-focused oral presentations using established EM guidelines. The critical elements of an EM oral presentation, as established by Davenport et al. in “The 3-Minute Emergency Medical Student Presentation: A Variation on a Theme,” were built into our novel rubric. Following the tenets of the published EM literature, our rubric has an emphasis on pertinent information, a focused exam, concise summary without unnecessary information, and an assessment and plan that provides a differential diagnosis and addresses the most important issues.

Impact/Effectiveness: This rubric was used in our study of medical student presentations, “Teaching and Evaluating Medical Students’ Oral Presentation Skills in Emergency Medicine,” which documented an improvement in oral presentations after fourth-year medical students used a formalized self-didactic curriculum. We anticipate that this rubric will be incorporated into EM clerkships, improving educators’ ability to grade and provide feedback on medical student oral presentations. In the long term, this rubric will allow for standardized evaluations of students from different backgrounds and medical schools.

34 Emergency Medicine Residents as Mentors: Toward a Curriculum on Mentoring

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Background: Mentorship is critical in all stages of career development. Emergency medicine (EM) is increasing in popularity as a specialty choice, which increases the need for emergency physicians who can mentor medical students pursuing careers in EM. Students have traditionally sought mentorship from EM faculty. However, students are not directly exposed to EM during the clerkship phase of the curriculum, limiting their interaction with EM faculty and making early mentor identification difficult. Simultaneously, while residents are expected to be educators, mentoring is often not explicitly taught or practiced. Thus, we created a resident-student mentoring program for students exploring careers in EM.

Educational Objectives: Our aim was to develop a resident-student mentoring program to provide senior medical students advice and support as they consider a career in EM and apply to residency, while providing EM residents a formal opportunity to develop mentoring skills.

Curricular Design: Interested senior medical students were assigned a volunteer senior resident mentor. Residents and students were introduced via e-mail. Contact information and mentoring program goals and expectations were provided. Residents were given core articles on mentoring. Residents and students attended two group events to discuss mentoring and pursuit of an EM career. Each dyad also arranged individual meetings.

Impact/Effectiveness: Of 26 residents, 25 (96%) volunteered; 15 residents and 15 students participated in the program. After the 2016 Match, participants completed surveys regarding their experiences: 6/15 (40%) residents and 10/15 (67%) students completed the survey. All (6/6) of the residents agreed or strongly agreed that “I enjoy being a mentor” and all (6/6) would recommend the program to a colleague. Of the nine students surveyed, eight (89%) reported they would recommend the program to other students. The mentoring program was feasible; students did not overwhelm residents with requests and students found residents welcoming and easy to contact. Both groups enjoyed the program. Further development of the program includes a formal curriculum on mentoring, relation of program participation and resident job satisfaction, and expanding to junior medical students.

STUDY ID: _____ Patient Presentations in Emergency Medicine: A Medical Student Curriculum
HSC-MS-17-0579

PATIENT PRESENTATION RATING TOOL

Evaluator _____ Month (circle): July / August / September / October Timing (circle): Beginning of rotation / End of rotation
Note: Please use a score of 3 to indicate performance that is at the expected level for a fourth year student

HISTORY

| | | | | |
|---|---------------------------|-----------------------|--------------------|---|
| 1. Chief complaint noted as part of introductory sentence | | | | |
| 1 | 2 | 3 | 4 | 5 |
| No Chief complaint | Chief complaint mentioned | Chief complaint clear | Questions/Comments | |

| | | | | |
|---|--|--|--------------------|--|
| 2. HPI starts with clear patient introduction including patient's age, sex, pertinent active medical problems | | | | |
| 1 | 2 | 3 | 4 | 5 |
| No introductory sentence | Intro included CC and most pertinent information | Intro painted a clear picture of patient | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

| | | | | |
|--|--|--|--------------------|--|
| 3. The HPI includes only relevant PMH and ROS without non-relevant ROS or any physical exam findings | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Information has no clear connection to the active medical problems | Information adequately describes the patient's active medical problems | Information completely and concisely describes all active problems | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

PHYSICAL EXAM

| | | | | |
|---|---|---|--------------------|--|
| 4. Includes a targeted physical exam including relevant vital signs stating the positive and negative findings that distinguish the diagnoses under consideration and any other abnormal findings | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Either too much or too little information given | Most important information is given with vitals | All important elements of vitals and PE given | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

SUMMARY STATEMENT

| | | | | |
|---|---|---|--------------------|--|
| 5. Begins assessment with a summary statement that synthesizes the critical elements of the patient's chief complaint, HPI, and pertinent findings on physical exam | | | | |
| 1 | 2 | 3 | 4 | 5 |
| No summary statement or restatement of story without synthesis | Most pertinent information synthesized; may repeat some unnecessary information | Summary statement concisely synthesizes all key information | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

ASSESSMENT AND PLAN

| | | | | |
|---|--|---|--------------------|--|
| 6. Provides an appropriate differential diagnosis including top "not to miss" diagnoses | | | | |
| 1 | 2 | 3 | 4 | 5 |
| No differential diagnoses are given | A Ddx with several possibilities is given for major problems | Extensive Ddx with most likely dx and "not to miss" | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

| | | | | |
|---|---|---|--------------------|--|
| 7. States the diagnostic/therapeutic plan that targets each problem; each item in the plan relates to something listed on the prob list | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Patient plan is not described or is unrelated to the problem list | Plan for the patient addresses most important issues, may omit active but lower priority problems | Patient plan is complete and relates directly to the problem list; all active issues are included | Questions/Comments | <input type="checkbox"/> too much <input type="checkbox"/> too little |

GENERAL ASPECTS

| | | | | |
|---|--|--|--------------------|---|
| 8. Body language and speaking style | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Difficult to understand with distracting gestures | Mostly understandable and engaging with acceptable body language | Understandable and engaging speaking style, professional body language | Questions/Comments | |

| | | | | |
|---------------------------------|---|--|--------------------|---|
| 9. Length of presentation | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Too long or too short in length | Mostly appropriate in length, may be a little too long or short | Appropriate length for complexity of patient | Questions/Comments | |

Comments: _____

Table: Comparison of resident and student responses regarding mentoring activities

| Statement | | Resident Response (%) | Student Response (%) |
|---|------------|-----------------------|----------------------|
| The amount of contact (either in person or via phone, text, etc.) was | Too little | 5/6 (83) | 3/10 (30) |
| | Just right | 1/6 (17) | 7/10 (70) |
| | Too much | 0/6 (0) | 0/10 (0) |
| The number of group activities was | Too little | 3/6 (50) | 2/10 (20) |
| | Just right | 3/6 (50) | 8/10 (80) |
| | Too much | 0/6 (0) | 0/10 (0) |