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Rapid Cycle Deliberate Practice Simulation for Resuscitation Training of Medical Students

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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.

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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.

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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