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Hands-On Learning: Transforming Resident Education in Hand and Wrist Fracture Management

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Educational Objectives: This activity aimed to (1) strengthen residents' understanding of key terms, diagnostic criteria, and management strategies for aortic dissection; (2) improve recall and application of these concepts in high-pressure clinical scenarios; and (3) enhance teamwork and communication skills through competitive, game-based learning.

Curricular Design: The activity was implemented during weekly resident conference with 12 participants split into two teams. A 5×5 Code Names–style grid incorporated terminology related to aortic dissection, including diagnostic classifications, imaging modalities, treatments, and management priorities. A Spymaster provided single-word clues to guide teammates toward selecting the correct terms while avoiding the “assassin” card. Following the session, residents completed a four-item post-activity survey using a 5-point Likert scale assessing motivation, engagement, challenge, and perceived preparedness for managing cardiovascular emergencies.

Impact/Effectiveness: Ten residents completed the survey. Participants reported high motivation to learn cardiovascular content through this gamified format (mean 4.6/5). All respondents (100%) agreed or strongly agreed that the game was more engaging than traditional educational methods (mean 4.9/5). Residents also found the activity appropriately challenging (mean 4.6/5), with 90% agreeing it tested their abilities more effectively than standard instruction. Additionally, 80% reported feeling better prepared to manage real-life cardiovascular emergencies following participation (mean 4.0/5). Future iterations will expand this gamified approach to additional high-stakes cardiovascular and emergency medicine topics.

25 Hands-On Learning: Transforming Resident Education in Hand and Wrist Fracture Management

Kathryn Lorenz, Kathryn Ritter, Kirlos Haroun, Michael Ehmann

Intro/ Background: Emergency physicians frequently manage hand and wrist fractures. However, recent data has shown that many EM residents lack confidence in this component of the ABEM Model of Clinical Practice, highlighting the need for prioritization of orthopedic curricula in residency didactics.

Educational Objectives: By the end of our conference session, EM residents will be able to:

- Accurately interpret radiographs of distal radius fractures
- Develop confidence in independently performing distal radius reductions without Orthopedic consultation
- Execute proper technique for fracture reduction management through hands-on demonstration

Curriculum: Targeting PGY 1–4 EM residents, a five-hour session combining didactics and hands-on training

was delivered during conference time. The core curriculum centered on wrist anatomy, structured hand examination, radiographic interpretation of distal radius fracture variations, and faculty-led demonstrations of fracture reduction principles. Learners rotated through a series of hands-on stations designed to reinforce key steps in distal radius fracture reduction including application of finger traps, performance of hematoma blocks, reduction techniques using 3D-printed models, and immobilization and splinting techniques.

Impact/Effectiveness: Thirty-seven participants completed pre-training assessments and 43 completed post-training evaluations. Knowledge improved significantly, with identification of Colles fractures increasing from 62% to 91% and Smith fractures from 43% to 88% (both $p < 0.001$). Procedural comfort showed marked improvement, with mean comfort scores increasing from 1.77 to 3.33 on a 5-point scale (effect size $d = 1.8$). The percentage of participants reporting comfort performing fracture reduction without consultation increased from 3% to 77%. These findings demonstrate statistically significant knowledge gains and clinically meaningful improvements in procedural confidence. Next steps include measuring residents' skill retention and procedural comfort in practice.

26 RECAP: Revamping of Clinical Assessment Practices

Richa Gupta, Michelle Qu, Thomas Sanchez, Saumil Parikh, Sheetal Sheth, Brian Smith, Timothy Khowong, Anita Lui

Introduction: The Standardized Letter of Evaluation (SLOE) is an integral part of the emergency medicine applicant's profile and allows programs to view EM bound students through a consistent lens. Despite the vital importance of the SLOE, when the time comes for Clerkship Directors to compose them, there is usually a dearth of direct observational data due to the natural time constraints imposed by a number of simultaneous rotators and lack of enthusiasm from educational faculty for completing shift evaluations. Current Standard Direct Observational Tools (SDOTs) exist to evaluate trainees during patient encounters but do not directly correlate to SLOEs.

Educational Objectives: The objective was to determine if a dedicated resident as a teacher on an education rotation utilizing a direct observational tool could generate additional data for use in writing SLOEs.

Curricular Design: A new evaluation form was created to reflect the competencies that are evaluated by SLOEs. A PGY-3 resident on a medical education rotation was tasked with direct observation of rotating medical students during a patient encounter and then giving them real-time feedback on their presentations. They were then asked to fill out the new evaluation form with comments on their interactions with the student.

Impact/Effectiveness: Post-rotation survey data was