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Teaching and Evaluating ED Handoffs: A Qualitative Study Exploring Resident, Attending, and Nurse Perceptions

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also asked to review their OSCE video and give themselves a grade on the same scale (“self-score”). Finally, students were asked: “On a scale of 1 (not at all) to 5 (a lot), how comfortable are you being a first responder?”

Results: 84.2% rated their comfort level as a 3 or a 4; 7.9% rated a 2 and an equal percentage rated a 5. There was a positive correlation between students’ comfort rating and self-scores ($r=0.60$, $p=0.001$). There was no significant correlation between students’ comfort rating and the expert score ($r=0.28$, $p=0.090$).

Conclusion: Our study suggests that there is a correlation between students’ assessment of their own OSCE performance and their self-reported comfort in being a first-responder. This can either be because students who were comfortable with their skills as a first-responder were more likely to overestimate their performance on the OSCE, or because students who felt they did better on the OSCE based on their video review felt more comfortable with their first-responding skills. Our study also suggests, however, that student comfort does not necessarily predict better OSCE performance.

65 Systems-Based Practice and Practice-Based Learning Milestone-Based Remediation Toolbox

Williamson K, Moreira M, Price C, Quattromani E / Advocate Christ Medical Center, Oak Lawn, IL; Denver Health Medical Center, Denver, CO; Hartford Hospital, Hartford, CT; St. Louis University, St. Louis, MO

Introduction: In 2012, the Accreditation Council for Graduate Medical Education (ACGME) supplemented the core competencies with outcomes-based milestones for resident performance within the six competency domains. These milestones address the knowledge, skills, and abilities that a resident is expected to obtain during the course of training. The systems-based practice (SBP) and practice-based learning (PBL) milestones encompass core emergency medicine (EM) issues such as patient safety and performance improvement. EM educators must be provided with tools that aid in the identification and remediation of residents struggling to achieve proficiency for a particular milestone.

Educational Objectives: The goal of the Council of Emergency Medicine Residency Directors (CORD) Remediation Task Force (Subcommittee on SBP/PBL Milestones) was to develop a guide to aid in milestone-based resident assessment and remediation. The subcommittee sought to provide specific examples of commonly encountered problems followed by remediation strategies. The group also developed a Standardized Direct Observational Assessment Tool (SDOT) to monitor a resident’s progress through the remediation process.

Curriculum Design: Building on tools developed at a consensus conference at the 2009 CORD Academic Assembly, the guide generated by this task force provides scenarios

of problematic resident behaviors that can be mapped back to milestone levels within the SBP/PBL competencies. Remediation strategies for these deficiencies were then generated. We also devised an SDOT, an evaluation form that specifically targets milestone-based behaviors in order to facilitate evaluation of a resident’s progress through the remediation process.

Impact: The program director can utilize these milestone-based tools for assistance in developing a remediation plan for a resident who is not performing adequately in the SBP/PBL competencies. The SBP/PBL remediation instrument can be utilized to improve resident training in the new accreditation system.

66 Teaching and Evaluating ED Handoffs: A Qualitative Study Exploring Resident, Attending, and Nurse Perceptions

Flanigan M, Heilman J, Johnson T, Rushing T, Yarris L / Oregon Health and Science University, Portland, OR

Background: The Accreditation Council for Graduate Medical Education requires that residency programs ensure resident competency in performing safe, effective emergency department (ED) handoffs. Understanding resident, attending, and nurse perceptions of the key elements of an “ideal” ED handoff is a crucial first step to developing feasible, acceptable educational interventions to teach and assess this fundamental competency. This study explores interprofessional perceptions regarding the key elements of ED handoffs.

Methods: Using a grounded theory approach and constructivist/interpretist research paradigm, we analyzed data from three focus groups (FGs) at an urban, academic ED that were conducted for a separate study that aimed to inform standardized ED handoff practices. FG protocols were developed using open-ended questions that sought to understand what participants felt were the crucial elements of ED handoffs. ED Residents, attendings, physician assistants, and nurses were invited to participate. FGs were observed, hand-transcribed and audio-recorded. Data were analyzed using an iterative process of theme and subtheme identification. Saturation was reached during the second focus group, and a third reinforced the identified themes. Two team members analyzed the transcripts separately and identified the same major themes.

Results: ED providers identified that crucial elements of ED handoff include: 1) Process (standardization, information order, tools); 2) Time (brevity, interruptions, waiting); 3) Environment (physical location, ED factors); 4) Culture (provider buy-in, openness to change, shared expectations of signout goals) (Table 1).

Conclusion: Key participants in ED handoff process perceive that the crucial elements intershift handoff in the ED involve the themes of process, time, environment, and culture. Attention to these themes may improve the feasibility and

Table 1. Themes, subthemes, and educational considerations of interprofessional perceptions regarding the crucial elements of emergency department (ED) handoffs.

Theme	Subthemes	Educational considerations
Process	Standardization Information order Available tools (documentation phrases, mnemonics, etc)	<ul style="list-style-type: none"> • Importance of standardized process • Need for orientation and ongoing monitoring and training of all providers
Time	Brevity Interruptions Waiting	<ul style="list-style-type: none"> • Recognition of the tension between time constraints and educational mission – learners may not be as efficient as attendings
Environment	Signout location (dedicated space, bedside vs. separate) ED factors (crowding, volume)	<ul style="list-style-type: none"> • Bedside handoffs may provide a different level of safety for learners to practice handoff skills than provider-only locations • Patient care needs may supercede educational aspects of handoff depending on ED factors
Culture	Provider buy-in Openness to change Shared goal expectations	<ul style="list-style-type: none"> • Aligning competing operational, patient safety, and educational interests may help increase engagement in handoff interventions • ED culture and provider expectations may impact the feasibility and acceptability of handoff interventions. Soliciting stakeholder engagement early may help increase buy-in.

acceptance of educational interventions that aim to teach and assess handoff competency.

67 Teaching Videos Enhance Students' Ability to Self-Assess their Performance as a First-Responder on Objective Structured Clinical Examinations (OSCEs)

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Background: First-years students attend an Introductory Emergency Medicine Clinical Skills Course, learning first-responder skills, followed by a single-station objective structured clinical examination (OSCE) to evaluate learning.

Objectives: To determine whether grading benchmark first-responder OSCE videos enhances students' ability to assess their own OSCE performance and whether students find these videos to be a helpful learning tool.

Methods: In fall 2012, a grading rubric was used to give each student (n=39) a "percent score" for the OSCE. The author HG, blinded to the percent score, reviewed video recordings of each OSCE, assigning a subjective "expert score" on a scale of 1 (poor) to 5 (excellent). Students reviewed their own videos, providing a "self-score" out of a 5. They then scored three videos of a first-responder managing the case with poor, average and excellent performance. Students then re-scored their own video. Finally, students were asked: "On a scale of 1 (not at all) to 5 (a lot), how much did the three benchmark videos contribute to your training as a first-responder?"

Analysis: Paired t-test was used to compare self-scores and the Maxwell-Stuart test was used to compare frequency distributions. Spearman's correlation coefficient was used to assess correlations between scores and other variables in the study. All analyses were done using STATA version 11.

Results: 39.5% of self-scores changed after video review, with 80% decreasing. There was a positive correlation between percent and expert scores ($r=0.47$, $p=0.003$), and percent and self scores post-video review ($r=0.39$, $p=0.017$). 86.8% of the students responded to the evaluation question with a 4 or a 5.

Conclusions: Benchmark videos are a helpful learning tool. Expert scores' correlation with percentage scores suggests that a 5-point grading scale is an effective way to assess OSCEs. Student self-scores after video review aligned more closely with the percentage score, suggesting that videos improved their ability to self-assess.

68 Team Based Learning: Acute Ischemic Stroke

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Background: Ischemic cerebrovascular accident (stroke) is common in the US. It is the leading cause of adult disability and third most common cause of death. A delay in treating a stroke leads to a worsened neurologic outcome. Tissue plasminogen activator (TPA) is a time-sensitive medication with complex inclusion and exclusion criteria. These issues push emergency physicians to make the diagnosis and create