3 Teaching Handovers to Medical Students in the ED: Addressing Entrustable Professional Activity (EPA) #8

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Background: Patient handovers are a critical part of the emergency medicine physician's clinical practice. Effective handovers relay critical patient information and ensure patient safety. The AAMC EPA #8 highlights the importance this principle in medical education. However, there are very few programs designed to address this important goal.

Educational Objectives: To assess the medical students' view of the current curriculum and to evaluate the utility of an educational curriculum addressing patient handover in the ED.

Curricular Design: At the beginning of each 4th year EM elective, students where asked to complete a survey to assess their familiarity and previous education on handovers. Students were then instructed to carry out supervised student to student handovers in the ED at beginning and end of shift throughout the rotation. Observations by residents/faculty were recorded utilizing a standardized checklist with specific domains based on EPA 8 guidelines. At mid rotation, students were given a 1 hour didactic session on handover barriers/models including IPASS, and students practiced handover of simulated patients. At the end of the rotation, students filled out a second survey. 35 students participated in the curriculum from April to October of 2015.

Impact/Effectiveness: A 5-point Likert scale was used to assess each student's familiarity with handovers. On pre-didactic surveys, 25% of the students reported they had no familiarity. 31% of these students felt comfortable doing a handover. 8% of these students reported prior handover experience. 34% of the students had no familiarity with IPASS. Post didactic session, 96% reported that they have a least a strong familiarity with the handover process (scoring 4 or 5). Of these, 80% practiced a handover at least 3 times. 85% of the students felt comfortable doing a handover after the training. Post didactic session, 65% of the students agreed or strongly agreed that they received beneficial feedback and felt more comfortable with the handover process in the ED setting. Improvement was noted on feedback forms. This simple education program suggests that focused didactics, opportunities to practice this skill under direct observation, and feedback by faculty is important in the entrustment development.

Educational Soundbites Oral Presentations

1 Incorporation of First-Person Video to Improve the Assessment of Procedural Skills

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Background: The ACGME has developed a set of milestones with clearly defined criteria for assessment and feedback for each residency program. However, the milestones are designed to provide a more global assessment and may lack the granularity to be a useful feedback tool for learners. Evaluation of procedural skill often involves direct observation by a supervising physician. Evaluators are required to prepare summative judgments of the competency of the learner and then provide constructive feedback. However, direct observation can be influenced by many factors including the success or failure of the procedure, the degree of difficulty, the degree of attentiveness of the evaluator and recall bias. In the clinical environment, direct observation can be logistically difficult, subsequently making evaluation and feedback less effective. A recording will mitigate the impact of some of these factors, providing an accurate record for later review.

Educational Objectives: We are seeking to test a novel system for evaluating procedural skills among residents using first-person video (Google Glass).

Curricular Design: This project utilizes Google Glass, to capture a first-person recording of the procedure to address deficiencies with direct observation. After the recording the video will be reviewed by resident and evaluator. We aim to develop a comprehensive system that includes self-assessment, detailed feedback, and evaluation of the evaluator. The primary outcome measures will be the assessment of procedural competency for vascular access and the identification of errors, critical actions, and confounding variables that occurred during the procedure. Secondary outcome measures include the effectiveness and utility of first-person video recording for assessment. Procedural competency will be assessed using a validated checklist and the ACGME Milestones assessment tool. In addition, during the video review the evaluator will identify and note any technical or non-technical errors in an open-ended comment box, noting the time at which it occurred for future review.

Impact/Effectiveness: The expectations of the ACGME in regards to evaluation is increasing, and ensuring the procedural competence of residents is essential. If effective, first person video evaluation could aid in creating a more accurate assessment of resident skills and more accurate and useful feedback for the resident.

2 Innovative Curriculum for Media Interactions

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