

Many Candidates, Little Time and Minimal Staff: How to Assess Airway Management Skills

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Learner audience: Residency program directors, faculty involved with airway management training and assessment.

Needs Assessment: Using the Difficult Airway Management guidelines adopted by our Department three airway management skills that must be mastered by all residents were identified. These skills are fiberoptic intubation, intubation using an Intubating Laryngeal Mask, and cricothyroidotomy.

Our Department's policy is that residents must demonstrate a specified level of competency on a mannequin before attempting these skilled procedures on patients. The logistical problem we faced was how could we use an objective standardized test to assess a large number of residents (approximately 24), performing the three different procedures listed above, within 2 hours (the out of OR time available), using only one faculty member (all that could be spared due to clinical production demands)?

Curriculum: The assessment uses checklists in an OSCE format. One OSCE station for each skill, therefore the assessment involves three stations. Evaluators are trained in the use of the checklists. We have effectively used junior residents as evaluators, but administrative staff or medical students are an alternative. Video recordings of the assessment are made which help ensure inter-observer reliability, maintain assessment security by discouraging the assessor from helping the test candidate and to provide feedback to the candidate. If the candidate demonstrates competence at the required task, then the video recording of the candidate's performance is stored in that candidate's electronic portfolio.

Impact: The method which we have used can effectively assess large numbers of candidates according to the checklists. The presentation will provide all the information necessary for the immediate implementation of the Airway Skills Assessment, including lists of equipment, scoring checklists and a management timeline.

This work was performed with IRB approval.