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A Prospective Analysis of Milestone Integration into Resident Global Assessment

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in this procedure prior to graduation. Previous models including live animal labs and computerized manikins are expensive and can be difficult to run. We developed a low cost, easy-to-construct model using supplies readily available in the emergency department and pork spare ribs purchased from a grocery store.

Educational Objectives: The objectives of this model are 1) to provide emergency medicine residents with a life-like task trainer for hands-on practice in tube thoracostomy insertion, and 2) to provide an inexpensive alternative to high fidelity simulators while remaining reusable and easy to set up.

Curricular Design: Our model was created in order to provide residents with additional practice in tube thoracostomy insertion above that which they gain on actual patients. The model was created using a side of pork spare ribs wrapped in an absorbable chux pad and supported on its side by towel rolls. The outside of the model was then covered with a thin foam sheet from an arts and crafts store and secured with tape (Figure 1). After construction, we used the model along with a standard chest tube insertion kit in small group sessions. This allowed each resident to independently perform the procedure (Figure 2) and provided an opportunity to discuss basic chest tube management in a low stress environment.

Impact: Residents were not formally assessed, however they universally expressed benefit from the added procedural instruction. Further, the model allowed for realistic simulation of the entire procedure from the injection of anesthesia to the “pop” felt when entering the chest due to the intact fascia along the back of the ribs. In conclusion, our tube thoracostomy model presents a low cost yet realistic alternative to high fidelity simulation for tube thoracostomy instruction.



Figure 1.



Figure 2.

6 A Prospective Analysis of Milestone Integration into Resident Global Assessment

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Background: End-of-shift (EoS) evaluations including questions regarding milestone achievement are commonly used by Emergency Medicine (EM) training programs. There is little objective evidence regarding the integration of milestone achievement into existing evaluation strategies. This prospective observational study compared faculty assessments of resident global performance to assessment by a clinical competency committee (CCC) using EoS milestone data.

Methods: Surveys were distributed to faculty members, asking for a global performance score (1-6) for each resident. The score assigned to the resident was the average of the faculty responses. Milestone data was collected by an EoS evaluation tool, already in use at the institution, from January-June 2014. Free-text comments were also collected during these EoS encounters. The CCC, blinded to resident identity, assigned a performance score (1-6) to each resident based solely on EoS milestone scores. Scoring was repeated after including free-text comments to the milestone scores. Correlation between scores was assessed by Spearman’s rho.

Results: 31/42 faculty participated in the survey. 43 EM residents were evaluated by the faculty and CCC. Mean performance scores: milestone-only data (MO)=3.76 (range 2-5), milestone plus free text comments (MFT)=4.2 (range 3-6), survey based faculty assessment (FA)=4.38 (range 3.5-5.4). Spearman’s rho for FA and MO scores was -0.11, demonstrating no significant correlation ($p=0.49$), while rho for FA and MFT scores was 0.4173 ($p=0.007$), indicating significant correlation.

Conclusions: Subjective information in the form of faculty comments at the EoS may describe performance elements not adequately measured by milestone assessments. There was stronger correlation between the CCC and faculty scores when milestone data was combined with the subjective observations of supervising faculty. Other tools for resident assessment are necessary to supplement milestone achievement scores.

7 A Simulation Based Approach to Disaster and Triage Training

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Background: There is a dearth of residency training in disaster medicine and techniques involved in triaging mass-casualty incidents (MCIs). Furthermore, due to variability and infrequency of MCIs, residents lack experiential practice.

Educational Objective: To create a simulation experience that improves practitioner confidence and skill