

## 26 Case-Linked Simulation Exercises Improve Resident Engagement in Palliative Care Discussions

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**Background:** The ability to conduct difficult palliative care conversations is a critical skill in emergency medicine (EM) to ensure that patients' wishes are respected while avoiding painful and futile medical interventions. However, EM residents often feel reluctant to partake in palliative care training since it can feel forced or irrelevant.

**Educational Objectives:** This innovation was designed to provide residents with training on difficult palliative care conversations with the goal of improving participation and application of the acquired skills to their practice.

**Curricular Design:** Groups of two to three residents completed a simulation case in which the patient suffered an acute ischemic stroke, requiring administration of tPA after a discussion of risks and benefits with both the patient and her son. The residents then transitioned to a second simulation station, where they were informed that their patient had a large intracerebral hemorrhage secondary to the tPA. The residents were met by the patient's two sons (standardized patients) and were asked to conduct a palliative care discussion including sharing the bad news, discussing clinical prognosis, addressing code status, and clarifying goals of care. At conclusion, the case was debriefed and additional information about available palliative care resources was discussed. Residents were asked to complete questionnaires before the simulation case and again approximately six weeks later. This case format was chosen with the intent of facilitating a palliative care conversation relevant to the residents' training with the opportunity for constructive feedback, in addition to providing residents a chance to process the implications of negative outcomes in a safe environment. The primary challenges involved securing funding for standardized patients and coordinating resident scheduling.

**Impact/Effectiveness:** Following this exercise, the average level of reported comfort with initiating palliative care conversations increased from 6.6 to 7.5 on a 1-to-10 scale. The number of residents who had ordered a palliative consult from the emergency department increased from 69% to 82%; and 82% of respondents agreed that they felt this format made practicing difficult conversations feel "relevant and engaging." Moving forward, we plan to expand this simulation format to address other critical communication and professionalism topics.

## 27 Ultrasound-Guided Serratus Anterior Plane Blocks: An Emergency Medicine Residency Module Using a Homemade Phantom

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**Background:** Good analgesia is difficult to obtain in patients with multiple rib fractures, especially the elderly. Targeting the site of injury with a serratus anterior plane (SAP) block can provide remarkable pain relief, potentially decreasing the use of opioids. This block is not widely available to emergency department patients as this procedure is not included in most emergency medicine (EM) residency curricula. Given the importance of practicing nerve blocks on realistic models prior to performing the procedure on patients in a clinical setting, we designed a learning module including a homemade phantom to aid physicians in developing skill with SAP blocks.

**Educational Objectives:** Learners will be able to 1) describe the indications, contraindications and setup for performing the block; 2) identify procedural landmarks on a human model using ultrasound (US); and (3) demonstrate a SAP block using a task trainer.

**Curricular Design:** This module is designed to provide experience and assess competency in performing a SAP nerve block using an inexpensive homemade phantom. The learner will first describe the indications, contraindications and landmarks for the procedure to faculty and acquire ultrasound images using a live model. At a second station, the learner's performance will be recorded on a check-off sheet after demonstrating the procedure. The phantom task trainer is created with pork ribs and chicken breasts to simulate tissue planes. First, the ribs are stabilized on a sturdy surface. Second, two chicken breasts are placed in two plastic bags simulating fascial tissue planes. The chicken breasts are then placed over the ribs to simulate the latissimus dorsi and serratus anterior overlying ribs. Artifact was minimized by ensuring full contact of the chicken with the plastic. This simple model created fairly realistic US images at a low cost of \$20.

**Impact/Effectiveness:** This module was implemented at a community EM residency in December 2018. Initial experience revealed the practical use of the phantom as a realistic model for teaching SAP blocks. This module could be reproduced by other residency programs. Further study will formally review the residents' competency with the procedure after completing the module with the ultimate goal for the residents to use this skill to improve patient care.

