

limits the opportunity for all trainees to perform the critical initial skin incision. Cadaveric autografting is a novel way to simulate all steps of the cricothyroidotomy procedure.

Objectives: To determine if cadaver tissue autografted to simulate native neck tissue improved perceived competency of cricothyroidotomy. The investigators hypothesized that autografted cadaver tissue would improve participants' self-assessment of competency.

Methods: In this prospective crossover study, volunteers were randomized to perform cricothyroidotomy initially on previously incised native neck tissue or on grafted tissue, then vice-versa. A board-certified emergency physician instructed all participants in cricothyroidotomy. The autograft consisted of cadaveric iliotibial band covered with lateral thigh skin to simulate cricothyroid membrane and native anterior neck anatomy (Figures 1 and 2). Volunteers met inclusion criteria if they were currently in residency training or participating in an emergency medicine sub-internship and had not performed a cricothyroidotomy on the study day. Twenty-seven residents and nine students participated. Outcomes were evaluated via Likert scale.

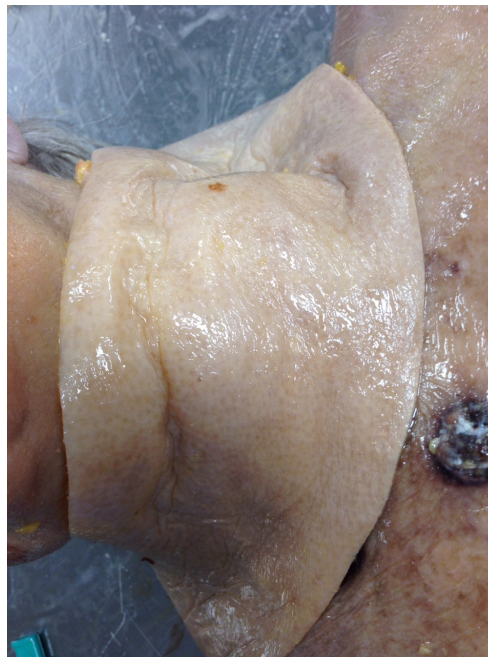
Results: Thirty of 36 (83%) of participants agreed or strongly agreed that they preferred cadaver grafting over previously incised native tissue. Thirty-two of 36 (89%) agreed or strongly agreed that performing cricothyroidotomy with a cadaver graft was useful, versus 23/36 (64%) who felt similarly regarding previously incised native tissue ($p = .001$). Twenty-six of 36 (72%) felt more comfortable with cricothyroidotomy in the emergency department after using cadaveric grafting versus 19/36 (53%) who felt more comfortable after using the native tissue ($p = .003$).

Conclusions: Grafted cadaveric tissue maximizes the educational potential of each cadaver by allowing multiple participants to perform cricothyroidotomy from start to finish and appears to be a useful training adjunct in this rare but essential emergency procedure.

Figure 1.



Figure 2.



27 Evaluating Resident Transitions of Care in the Emergency Department

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Background: Transition of care of patients between residents at change of shift happens multiple times per day in the emergency department. There are many opportunities for error in patient care to occur when there is handoff to a new team, as pertinent information may be lost. According to Kessler et al (2013 survey of program directors) effectively communicating patient care handoffs is not formally taught to most EM residents. Consequently, there are many variations in transition of care. Sinha et al (2007) suggested that a standardized sign out tool would more effectively communicate pertinent information to the next team of providers.

Objectives: Our goal was to determine the methods most frequently used in patient care handoffs at shift change and the information most frequently lost in transitioning care to a new team. Also, to assess resident's perception of safety and effectiveness of signout.

Methods: 122 residents representing 7 different Emergency Medicine residency programs in eastern Pennsylvania were surveyed while together in a conference at Einstein Medical Center. The survey data was collected anonymously, then correlated and analyzed using Excel.

Results: Figure 1 represents the range of sign out modalities reported to be used. 88% of programs use a verbal signout - either 1 to 1, group, or both. 4% use paper, and 6% do walking rounds. Figure 2 represents the residents' sense of

patient safety ensured during signout. 60% felt their signout ensured patient safety; 31% did not feel patient safety was ensured, but did not feel it was clearly compromised; 9% felt patient safety is compromised.

Residents were also asked if they thought their signouts were accurate (68% agree, 28% neutral, 4% disagree); if they thought their signouts were effective (75% agree, 16% neutral, 9% disagree); and if they were confident with the information given during signout (67% agree, 25% neutral, 7% disagree). Information missing during signout included HPI (35%), Significant PE findings (45%), Plan for ED workup (11%), Plan for disposition (31%), and Code status (1%). Only 6.5% of residents felt their signouts were not missing any relevant information.

Conclusions: Many signout tools are routinely used. Although the majority of residents are satisfied with their method of signout, a significant percentage feel that signouts lack completeness and do not ensure patient safety.

28 Evaluating Resident Transitions of Care in the Emergency Department

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Background: Simulation has been shown to be an effective training tool for Emergency Medicine providers. Its effectiveness in comparison to didactic learning is still unclear.

Objectives: To test the effectiveness of full manikin simulation as an additional teaching modality compared to didactic learning alone by comparing test scores of simulation participants to a control group. We hypothesized that test scores of simulation participants would improve more on immediate and delayed post-tests compared to control subjects.

Methods: Third-year medical students in their surgical clerkship between June and November 2015 were enrolled

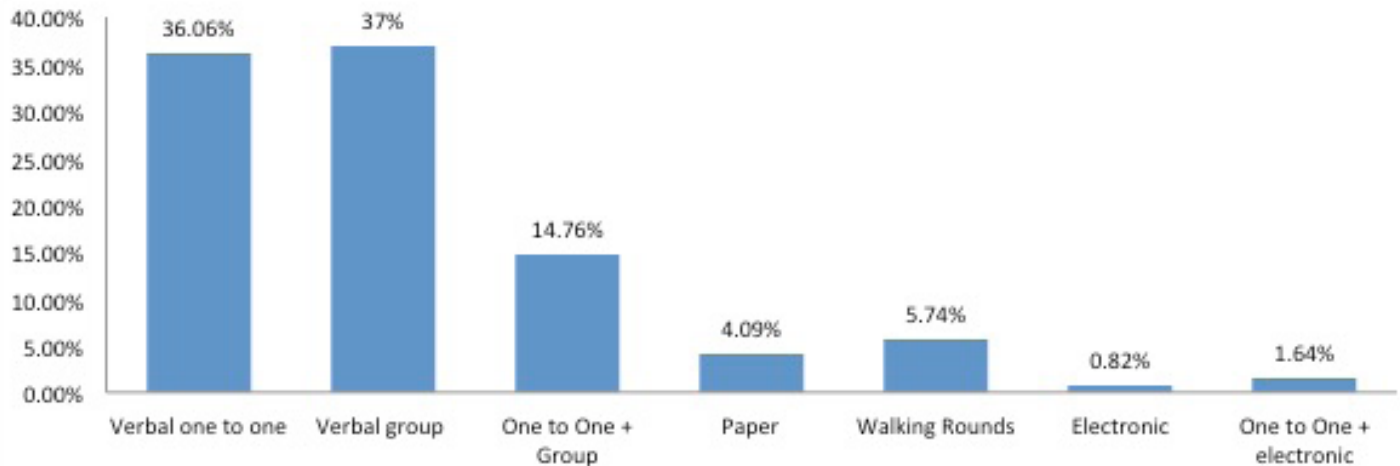


Figure 1. Sign Out Modality.

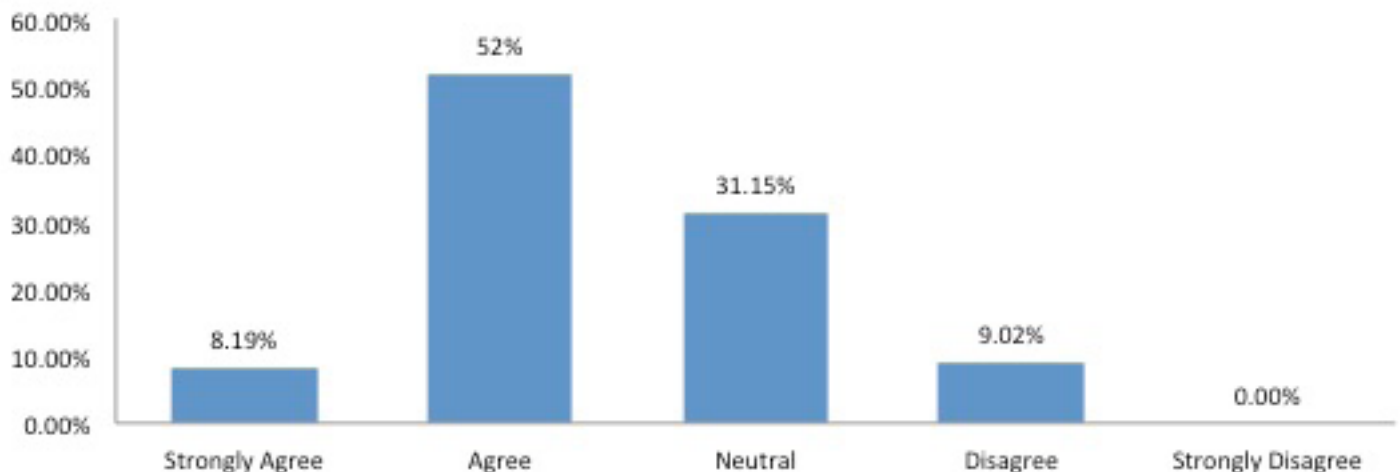


Figure 2. Patient Safety related to Sign Out.