

California Chapter of the American College of Emergency Physicians Research Forum Abstracts

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The following abstracts, which are published here with author permission, were presented at the 36th Annual California Chapter of the American College of Emergency Physicians Scientific Assembly held from May 31, 2007 to June 2, 2007 in Newport Beach, CA.

1 Subclavian Central Line Misplacement: Is it Needle Bevel or Guidewire Direction that Influences Line Placement?

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Objective: To determine whether it is the direction of the needle bevel, J-tip guidewire, or both that influences the direction of the guidewire in subclavian central line placement.

Methods: A total of 1,200 trials were performed using a plastic tubular model simulating the subclavian, IJV, and SCV junction. The trials were divided into six groups: needle bevel pointed upwards with J-tip directed upwards (n=200) or J-tip directed downwards (n=200), needle bevel pointed downwards with J-tip directed upwards (n=200), or J-tip directed downwards (n=200), and needle bevel position blinded to experimenter with J-tip directed upwards (n=200), or J-tip directed downwards (n=200). Twenty-eight textbooks were also referenced to see what is instructed regarding needle bevel and J-tip positioning in central line placement.

Results: The ultimate direction of the guidewire (up towards the IJV versus down towards the SVC) was entirely dependent on the direction of the J-tip guidewire regardless of needle bevel position in 100% of the trials. The guidewire was directed upwards when the J-tip was oriented upwards and directed downwards when the J-tip was oriented downwards. Ten (36%) of the textbooks we referenced commented on needle bevel orientation whereas only one (3.6%) mentioned J-tip direction. Eighteen (64%) of the textbooks did not mention any recommendations regarding needle bevel or J-tip direction.

Conclusions: Current educational resources that teach subclavian line placement overemphasize the importance of

needle bevel direction and fail to mention the much more influential issue of the direction of the guidewire J-tip.

2 Evaluation and Feedback of Medical Students Rotating in Emergency Medicine: A Model for Comprehensive Evaluation and Swift Feedback

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Objectives: Evaluating and providing quality feedback to medical students who rotate through the emergency department (ED) can often prove difficult. Unlike many medical school rotations, where students work with a set team of residents and faculty for a month or longer, in the ED students tend to have sporadic exposure to a broad range of physicians. This makes obtaining consistent and meaningful feedback challenging. We hypothesized that by implementing daily written evaluations and utilizing these to give formal mid- and end-rotation feedback, rotating students would have better interaction and evaluation from faculty and receive more useful and timely feedback.

Methods: Starting in the 2006 academic year, we implemented written evaluations of medical students each shift. Formal constructive feedback sessions were arranged mid- and end-rotation. Surveys evaluating students satisfaction with feedback were compared to 2005. Additionally, surveys of evaluation and feedback satisfaction from medical students and clerkship directors were collected nationwide.

Results: A significant portion of the 60 students and 53 directors surveyed believe there is inadequate evaluation (36.7% and 45.3% respectively) as well as feedback (31.7% and 41.5% respectively) in emergency medicine clerkships.