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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

Kenny Banh, MD; Lori Weichenthal, MD; Brandy Snowden, MPH
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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.