Analysis of routine venipuncture education and practice among acute care nurses

John Park
The University of Texas at Austin

Abstract

**Context:** Phlebotomy is the practice of drawing blood from patients by utilizing a needle device to perform venipuncture. As hospitals are decentralizing phlebotomy staff and shifting responsibility to nurses, it is essential to understand the characteristics of venipuncture practices among nurses.

**Objectives:** To describe venipuncture education and practice among acute care nurses in three areas: Phlebotomy education and training, needle device preference, and frequency of needle stick injuries.

**Methods:** A survey describing venipuncture practice among nurses was distributed via Qualtrics, to acute care nurses practicing in an urban setting. 115 nurses responded to the survey.

**Findings:** 81.7% of respondents reported satisfaction with their training while 18.3% reported inadequate training due to few opportunities to practice, absence of formal educational programs in health care setting, and insufficient education during nursing school. 71.6% of respondents preferred to use a butterfly needle for the initial venipuncture attempt based on personal preference, vein quality of patients, and technique while 18.3% of respondents preferred to use straight Vacutainer needles for the initial attempt based on technique and hospital policy. Five self-reported injuries and 33 witnessed-reported injuries were identified within the last year. Frequency of needle stick injury by comparison of butterfly versus straight needle devices was equal.
Conclusion: Formal, standardized educational programs are indicated to expand the scope of
venipuncture practice among nurses. Although a butterfly needle is the most preferred device for
venipuncture among nurses, it should not be selected based on personal preference, but rather on
patient considerations. Frequency of needle stick injury may be related to improper technique
rather than device design indicating the need for staff education regarding phlebotomy safety.