

Evidence Based Practice for CVC and PIV Infection Prevention in the Emergency Department

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Background

As regulatory requirements related to infection control practices and reimbursement continue to expand, emergency nurses can play a vital role in infection prevention before, during and after IV and central line therapy. Since peripheral intravenous (IV) therapy and central line insertion is often initiated in the Emergency Department (ED), it is essential to determine emergency nurse's knowledge regarding infection control practices.

Purpose

To examine and evaluate how well ED nurses know and apply evidence based practice (EBP) guidelines in preventing infections associated with peripheral and central venous catheter (CVC) access.

Demographics

Setting: 500 bed urban academic center with 60 bed Emergency Department in Chicago serving an average of 65,000 patients a year.

Participants: Registered nurses of an urban Level II academic center ED in Chicago.

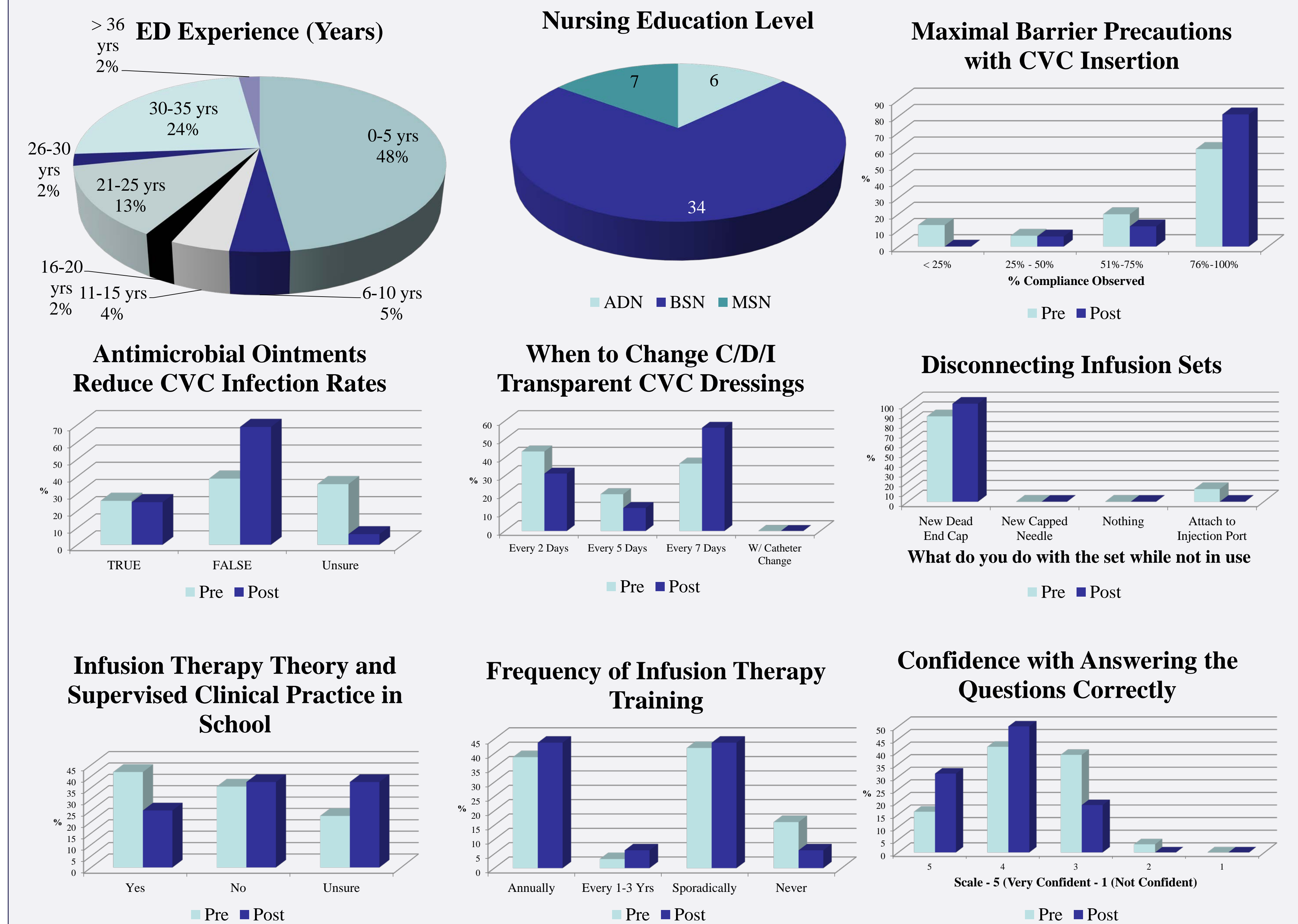
Method

Institutional Review Board approval from the academic center was obtained prior to implementation of the study. Permission was obtained from Delahanty and Myers to use their survey tool with some modifications added to focus on peripheral and CVC access maintenance. The survey tool contains 10 questions with multiple choice answers, and 3 demographic questions that pertain to years of experience, education level, and age. The voluntary participation of staff in both pre and post surveys served as assumed consent. The study involves surveying nurses on their knowledge and application of EBP guidelines on maintenance and prevention of infection related to peripheral and CVC access.

Pre-survey results were used to assess and evaluate knowledge of staff on EBP guidelines on preventing infections associated with peripheral and CVC access, and to develop effective educational resources. A literature review was used to provide education as well as offer recommendations associated with institutional nursing standards of practice regarding peripheral and CVC access. The post-education survey provides a comparison analysis of staff knowledge of EBP guidelines on preventing infections associated with peripheral and CVC access based from interventions provided. Timeline: Pre-survey- February 19 to March 5, 2014. Education session: March 12-21, 2014. Post Survey: March 22-April 3, 2014.

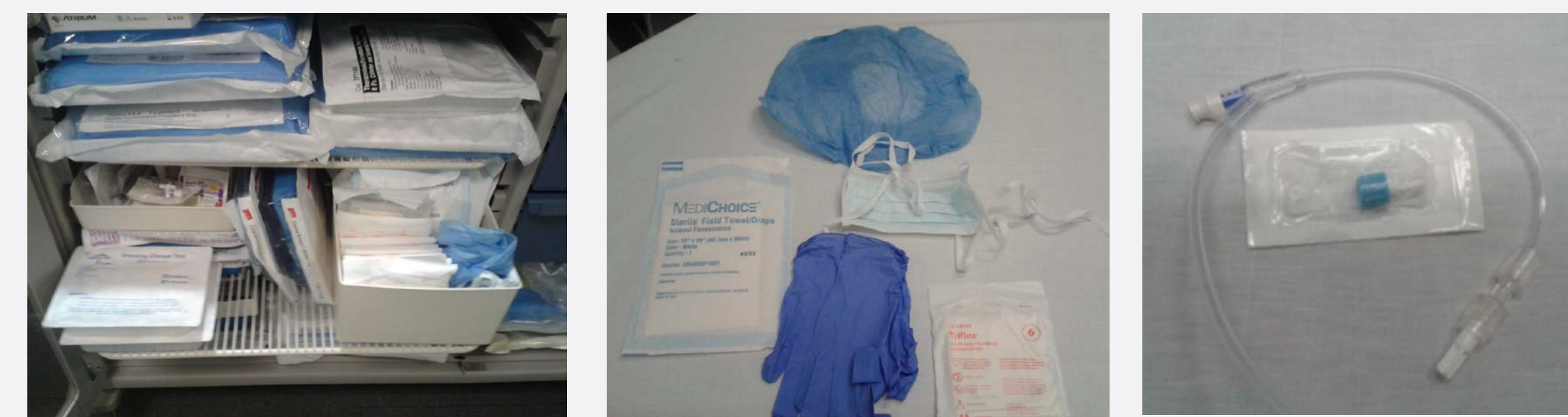
Results

Survey results suggest that although education and staff training is intuitive and necessary in improving safety practices, hardwiring best practice such as central line infection prevention bundles in the ED can greatly decrease infections and improve safety practices.



Conclusion

Emergency nurses play a vital role in protecting patients from infection. As emergency nurses are exposed to the most recent literature, the general safety guidelines when accessing and utilizing PIV catheters and CVCs may greatly reduce infection rates. Emergency nurses' knowledge and evidence based safety practices could decrease hospital and ED cost related to nosocomial infections and improve both patient safety and care. It is imperative that we frequently educate nurses on evidence-based practice guidelines for CVC and PIV infection prevention.



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