

Effects of Education and Improved Foley Catheter Care on Nurses' Knowledge and Catheter Associated Urinary Tract Infections

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Background

Urinary tract infections are the most common hospital-acquired infection, accounting for 40% of nosocomial infections annually. Approximately 70- 80% of UTIs are caused by indwelling foley catheters, and 56-89% of adults in critical care areas have foley catheters. The risk for catheter associated urinary tract infection (CAUTI) increases every day that the catheter is present; therefore, reducing the duration of catheterization and improving foley catheter care will result in lower infection rates.

Additionally, the use of silver impregnated (Theraworx™) wipes and Theraworx™ foam cleanser during foley insertion and for routine care have demonstrated reduced CAUTI rates in clinical studies.

The purpose of this study was to determine whether nurses' knowledge about foley catheter management increased after additional education and whether CAUTI rates were reduced after implementation of catheter care with Theraworx™ products.

Research Questions

1. Did nurses' test scores measuring their knowledge of catheter care improve after additional education?
2. Did CAUTI rates decrease after implementation of focused nursing education and the use of a new product for catheter insertion and care (Theraworx™)?



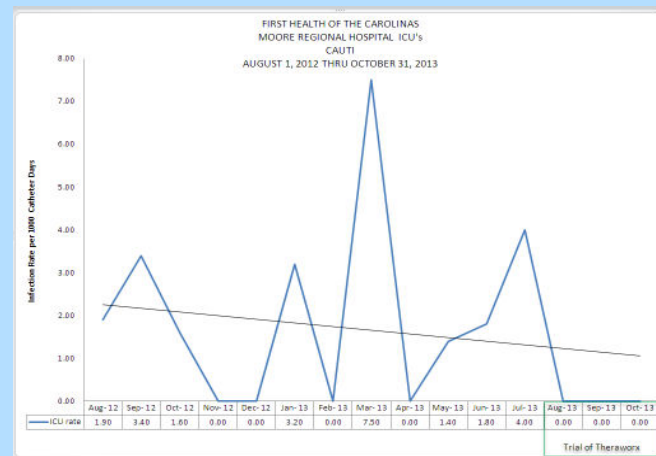
Foley Catheter Knowledge Questionnaire
 Results of this survey will be kept confidential.

Employee Number: _____

Please circle true (T) or False (F) for the following items.

True or False...	
T	F
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Total Knowledge Score (0 - 10)



Methods

A convenience sample of nursing staff was recruited from the critical care areas. A pre-test was administered and was comprised of questions pertaining to knowledge of foley catheter management and care. Following the pre-test, educational sessions were provided to reemphasize correct catheter insertion and maintenance both at Skills Fairs and at other times on the critical care units. Additionally, the use of Theraworx™ wipes and foam cleanser was implemented as a best practice with both foley insertion and routine catheter care. After staff education and implementation of the use of the wipes and foam cleanser for three months, a post-test was administered to the staff in the critical care areas.

Results

93 participants completed the pre-test, with a mean score of 68.60 (SD=12.73). 38 participants completed the post-test, with a mean score of 73.18 (SD=8.73). However, only 19 individuals completed both the pre-test and the post-test. Mann-Whitney U Test for the difference between the mean scores of the pre- and post-test for all participants was statistically significant (Z=-2.15, p=0.031). Wilcoxon Signed Rank Test for those that completed both the pre-and post-tests was also statistically significant (Z=-2.797, p=0.005).

Furthermore, in the 3 months after staff education and implementation of Theraworx™ there were 1667 catheter days, and the CAUTI rate was 0/1000 catheter days in the critical care areas. The previous year in the corresponding months there were 1728 catheter days, with a CAUTI rate of 2.3/1000 catheter days.

Conclusion

Education about best practices for foley catheter insertion and care increased nurses' knowledge. Increased knowledge and the implementation of the Theraworx™ products reduced CAUTIs in the critical care areas. Future research should evaluate whether these findings can be replicated in other settings.

