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Session C-004 - Quality Improvement

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## 32 - A Multimodality & Multidisciplinary Approach to Reduction of Catheter-Associated Urinary Tract Infections (CAUTIs) in the Burn Unit

March 22, 2017, 10:00 AM - 12:00 PM

Independence Ballroom

### Authors

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### Abstract

**Introduction:** According to the Centers for Disease Control and Prevention, Hospital Acquired Infections (HAIs) affect approximately 2 million people in the United States annually and account for 99,000 deaths per year. UTIs account for 12% of HAIs according to the National Institute of Health (NIH). Burn patients are at greater risk of infection due to lack of skin barrier and decreased immune function. At times it seems impossible to remove Indwelling Urinary Catheters (IUC's) for the critically ill burn patient, but evidence suggests implementing a bundle is an effective method to reduce CAUTIs.

**Methods:** We implemented a multidisciplinary/multimodal approach to CAUTI prevention at a university hospital-based burn unit that had CAUTI rates above the national benchmark for several quarters. Details of our approach are listed (see table).

**Results:** Prior to the implementation process in (Q1-2014 to Q1-2015), the Observed/Expected (O/E) CAUTI cases were above the National Healthcare Safety Network (NHSN) benchmark and above the Department of Human Services (DHS) target. Post-implementation the O/E has remained below the NHSN benchmark and DHS target (see graph). The unit experienced a 70% sustained reduction in CAUTI incidence with no cases and a Standardized Infection Ratio (SIR) of zero in 3 of 5 quarters.

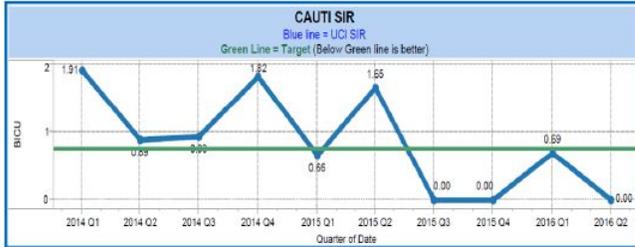
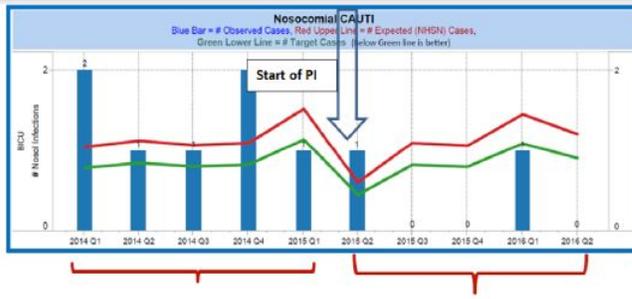
**Conclusions:** A multimodality approach involving the collaboration of entire multidisciplinary burn team has resulted in a sustained reduction in CAUTI. In addition, there has been a culture change in terms the used of IUCs as well as their care and maintenance.

**Applicability of Research to Practice:** A team approach combining education and best practices can maintain reduction in CAUTI in a burn unit. Reducing rates of infection, catheter utilization, and improving educational processes can increase patient safety.

Program Elements	Best Practices
A nurse-driven protocol for early indwelling catheter removal	Clean perineal area prior to sterile Foley Insertion, Avoiding dependent loops, Two person insertion
Computer-based training modules	Disinfection of basins before and after use
1:1 education for nursing and ancillary staff for best practices in perineal care	Use of chlorhexidine (CHG) cloths on the skin and 6" of catheter tubing after perineal care each shift and after each incontinence clean up
Direct observation of sterile catheter insertion	Daily discussion between Nurse team leader and rounding MD regarding necessity for IUC including alternatives (Condom catheter, intermittent catheterization, weighing Chux pads)

Twice daily bedside audits for Foley bundle, care of the indwelling catheter and perineal care

Avoiding contraindicated creams, lotion, and powders



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