

## Quality Improvement Podium Presentation 2016

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**ABSTRACT TITLE:** Reduction of Catheter Associated Urinary Tract Infections Utilizing Daily Management Systems

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**Background:** Urinary tract infections are the most common type of healthcare-associated infections, accounting for more than 30 percent of healthcare-associated infections reported by acute care hospitals. Virtually all healthcare-associated urinary-tract infections (UTIs) are caused by instrumentation of the urinary tract (e.g. insertion of catheters). CAUTI has been associated with increased morbidity, mortality, hospital cost, and length of stay (CDC, 2016).

**Purpose:** This quality improvement project focused on decreasing CAUTI rates in the ICU by using Lean methodology.

**Methods:** The ICU identified our CAUTI rates at being above the average national benchmark with a rate of 4.99 from September 2014 to April 2015. The ICU focused on this quality improvement initiative using tools from our model of Lean. Initially a Foley catheter audit bundle was developed. The Critical Care Academic Associates Program (CCAAP) volunteers implemented the audit tool. The ICU began completing a Root Cause Analysis for every CAUTI, and Hospital Infection Prevention Champions (HIP Champions), nurses from the ICU, were identified to help guide the work. Through CAUTI audits and RCAs gaps in patient care were found. Foley care was not being completed per evidenced based standards of care. The time documented between a patients Foley care was up to 22 hours. The next step was to implement a daily management system for Foley care in the ICU. This was completed with the help of the charge nurses and the CCAAP volunteers. Whenever it was identified that Foley care had not been completed for >10 hours, they would inform the charge nurse. The charge nurse would then follow up with the bedside nurse to identify barriers to complete Foley care. This was tracked and discussed weekly at the ICU improvement rounds.

**Results:**

Foley care completion rates remained above 75% post implementation, with an average of 91%. Reduction in maximum time between recorded Foley care events decreased from 22 hours to 13.5 hours. Reduction in CAUTI SIR rate of 4.99 (Sept 2014 – April 2015) to 1.73 (May 2015 – Dec 2015)

**Conclusion:** The ICU was successful at decreasing and sustaining a significantly lower CAUTI rate by applying Lean.