

The Fight Against CAUTI: Implementation of a Nurse-Driven Urinary Catheter Removal Protocol

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Introduction

Lahey Hospital & Medical Center:

- ❖ Acute care teaching hospital – Not-for-profit
- ❖ Located in Burlington, MA - 15 miles from Boston
- ❖ Inpatients >65 years old = 56.6%
- ❖ Designated as NICHE site since 2010

Background

Problem and Evidence:

- ❖ The Institute for Healthcare Improvement's 100,000 Lives Campaign in 2004 followed by the 5 Million Lives Campaign in 2006 identified the need to prevent "medical harm" to hospitalized patients by reducing catheter-associated urinary tract infections (CAUTI) (Wenger, 2010)
- ❖ CAUTI is associated with increased morbidity, mortality, and length of stay (Mori, 2014)
- ❖ An estimated 400,00 healthcare acquired CAUTIs occur per year (Alexaitis, 2014) at a cost of \$980- \$2900 per admission along with a notable decrease in reimbursement (Mori, 2014)
- ❖ Duration of catheter use is the most important risk factor for developing infection (Lo, 2014)
- ❖ A nurse-driven protocol reduces the overall prevalence of indwelling urinary catheters (Gotelli, 2008)

Project Strengths

Strengths

- ❖ Support from key leadership stakeholders
- ❖ Frequent meetings with CAUTI Champions:
 - ❖ Review project progress
 - ❖ Identification of driving and restraining forces for the project
- ❖ E-learning education for all RNs about CAUTI prevention

Evidence Based Practice

Goal

- ❖ The goal of this protocol is to reduce indwelling urinary catheter utilization rates with the secondary goal of reducing CAUTIs
- ❖ Aligns with the Nursing Professional Practice Model

Measurement Data

- ❖ Continue to monitor monthly data for catheter days
- ❖ Compare against NHSN data base

Nurse-Driven Urinary Catheter Removal Protocol

- ❖ Upon urinary catheter insertion, the provider orders the nurse-driven urinary catheter removal protocol
- ❖ The protocol provides the nurse the autonomy to utilize their critical thinking skills to assess if the catheter should be removed based on established protocol criteria

Project Design

- ❖ Identified multidisciplinary team members and key stake holders
- ❖ Completed evidenced base literature review and identified nurse driven protocols to be successful in reducing CAUTIs
- ❖ Collaborated with Lahey affiliate to identify system wide approved criteria for urinary catheterization followed by policy development
- ❖ Developed Nurse-driven Urinary Catheter Removal Protocol for both current paper order set and EPIC Electronic Health Record
- ❖ Presented to Nursing Leadership and identified staff nurse champions for each inpatient unit to promote best practice, educate staff, and serve as mentors
- ❖ Created e-learning for inpatient nurses along with case studies to further support practice change
- ❖ Physician team members educated providers
- ❖ Launched the protocol January 20, 2015
- ❖ Selected staff CAUTI champions, many of which were GRNs
- ❖ Rounded with CAUTI Champions and staff nurses
- ❖ Monitored and shared data with key stake holders and staff nurses

Outcomes and Future Plans

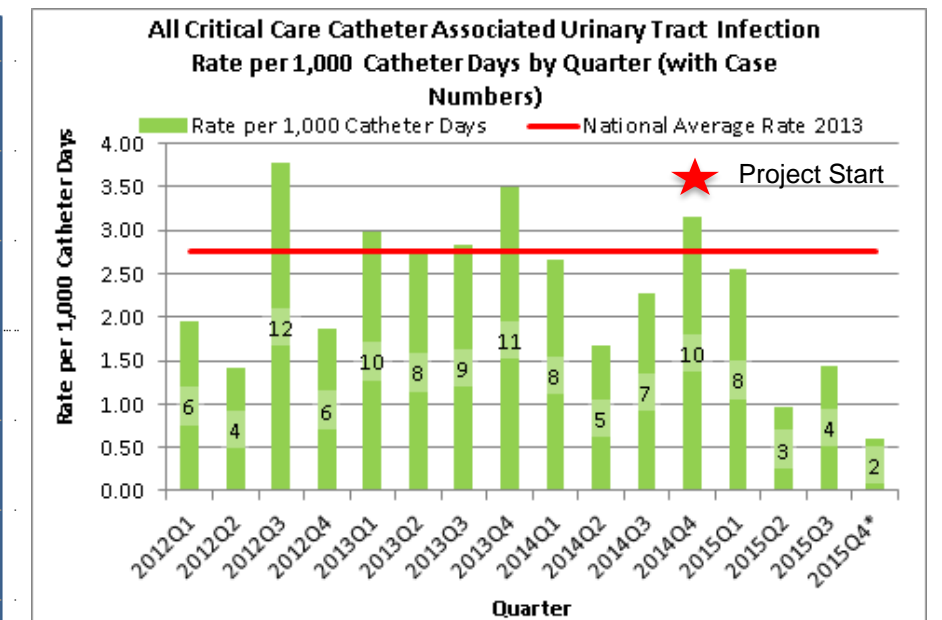
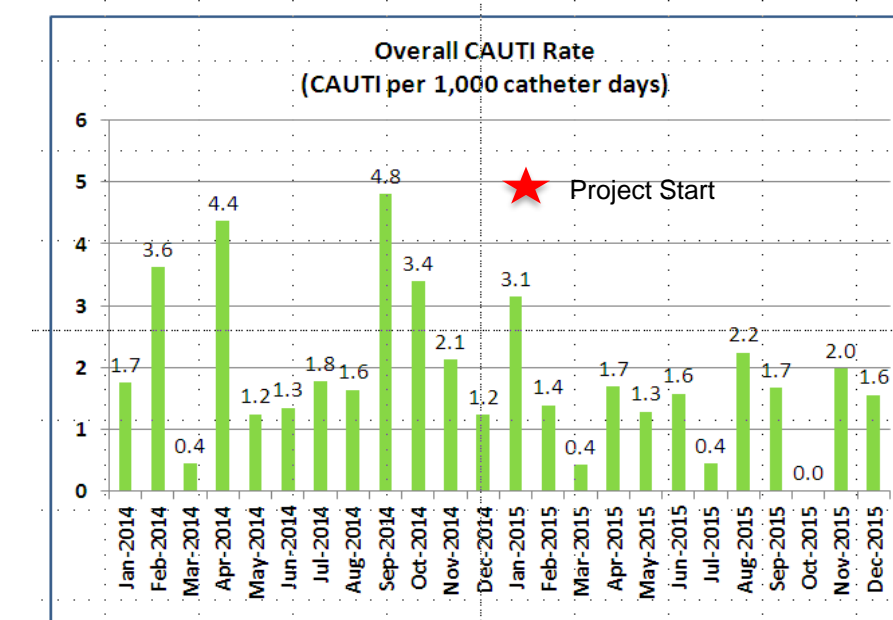
Outcomes:

- ❖ A 42.3% reduction in the number of CAUTIs were noted as illustrated in the charts below
- ❖ Catheter days remained unchanged. This was seen as an initial success as this was one of the first nurse driven protocols and nurses continued to remove catheters when did not meet the protocol indication.

Future Plans:

- ❖ Resume committee meetings to review how the paper protocol translated into the new EHR

Outcomes



References and Contact

- Alexaitis, I., & Broome, B. (2014). Implementation of a nurse-driven a protocol to prevent catheter-associated urinary tract infections. *Journal Of Nursing Care Quality*, 3(29), 245-252.
- Gotelli, J.M., Merryman, P., Carr, C., McElveen, L., Epperson, C., Bynum, D. (2008). A quality improvement project to reduce the complications associated with indwelling urinary catheters. *Urologic Nursing*, 28(6) 465-473.
- Lo, E., Nicolle, L.E., Coffin, S.E., Gould, C., Maragakis, L.L., Meddings, J., Pegues, D.A., Pettis, A.M., Saint, S., Yokoe, D.S. (2014). Strategies to prevent catheter-associated urinary tract infections in acute care hospitals: 2014 update. *Infection Control and Hospital Epidemiology*, 35(5) 464-480.
- Mori, C. (2014). A-voiding catastrophe: Implementing a nurse-driven protocol. *Medsurg Nursing: Official Journal Of The Academy Of Medical-Surgical Nurses*, 23(1), 15-28.
- Wenger, J. (2010). Reducing rates of catheter associated urinary tract infection. *American Journal of Nursing*, 110(8), 40-45. 5415.2010.03276.x

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