Reduction in Catheter Associated Urinary Tract Infections (CAUTI)

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Our Lady of the Lake Regional Medical Center
• 801 licensed beds
• Flagship of 5-hospital health system which is the largest in LA
• 2010 Magnet designated
• More than 1,000 physicians & 5,000 team members
• More than 35,000 inpatients and 350,000 outpatients per year

OBJECTIVE
Describe one hospital’s approach to decreasing CAUTI

IMPACT ON DAYS, DOLLARS, & DEATHS
• Most common type of healthcare-associated infection
• Excess length of stay
• Increased cost – $0.4-0.5 billion per year nationally
• ↑ Morbidity & mortality
  • ~ 13,000 attributable deaths annually

CDC-APPROVED INDICATIONS FOR FOLEY CATHETER USE
+ Urinary obstruction
+ Urinary retention
+ Catheter managed by urologist
+ Severe skin breakdown
+ Neurogenic bladder
+ ICU hemodynamic monitoring
+ Palliative care/Acute pain management
+ Repeat surgery within 3 calendar days

DURATION OF CATHETER USE
• The greatest risk factor for developing a CAUTI is prolonged use of the urinary catheter.
• Two golden rules:
  • Use only for appropriate indications
  • Remove as soon as they are no longer needed
WHY DO CATHETERS REMAIN LONGER THAN THEY SHOULD?
Because nurses . . .
- Like the convenience of a foley
- May loosely interpret foley indications in order to keep catheter in longer than necessary
- May be hesitant to remove foley without direct physician order

WHY DO CATHETERS REMAIN LONGER THAN THEY SHOULD?
Because physicians . . .
- Forget that catheters are in use
- May be unaware of patients who were in appropriately catheterized
- May be hesitant to discontinue foley ordered by another MD

EVIDENCE BASED STRATEGIES FOR DECREASING CAUTI
Consistent implementation of the following:
+ Avoiding unnecessary catheter insertion
+ Using aseptic technique during insertion
+ Maintaining based on recommended guidelines
+ Daily review of need, and removal when no longer indicated

CAUTI CUSP PROJECT
- "CUSP": Comprehensive Unit-Based Safety program
- Partnership with Louisiana Hospital Association to reduce CAUTI
- OLOL team led by an IC nurse and a Clinical Nurse Specialist
- Pilot cohort of three patient units with diverse patient demographics:
  - Critical care
  - Step-down unit
  - Cardiac
- Key interventions focused on:
  - Awareness of appropriate catheter placement and care
  - Timely discontinuation when no longer indicated.

INITIAL PROJECT AIM
- Reduce mean CAUTI infection rate by 25%
- Implementation of CAUTI Defect Analysis
  + Assesses foley care practices and compliance with:
    - Proper securement
    - Perineal care
    - Positioning of device during transport
    - Breaks in the closed system
    - Other factors
  + “Was the CAUTI avoidable?”

CATHETER INSERTION BY LOCATION

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All Units Foley Catheter Insertion Location
- *Other Location* 3
- Critical Care 17
- Operating Room 13
PROJECT RESULTS

- **Reduction in CAUTI rate by 50% from 4th quarter 2012 to 2nd quarter 2013**
- Reduction in:
  - Symptomatic UTI’s
  - Lengths of stay
  - Cost per stay

STANDARDIZED INFECTION RATIO (SIR)

- Used by the CDC to track HAIs at a national, state, or local level over time.
- Adjusts for the fact that each healthcare facility treats different types of patients.
- Compares the actual number of HAIs in a facility with the baseline U.S. experience (i.e., standard population), adjusting for risk factors that have been found to be most associated with differences in infection rates.
- SIR significantly >1.0 indicates that more HAIs were observed than predicted
- SIR significantly <1.0 indicates that fewer HAIs were observed than predicted

NEXT STEPS

- **Nurse Driven Protocol Pilot Project**
  - February 2014 to April 2014, 3 units
  - Implement housewide based on results

- **Emergency Department Catheter Insertion Project** (Spring 2014)
  - Address need for the foley before transfer from ED to inpatient unit

SUMMARY:

**ESSENTIAL COMPONENTS CAUTI REDUCTION**

- **Do not** insert foley without indication
- **Do** assess continued need daily based on appropriate indication(s)
- **Do** remove as soon as possible
- Daily documentation by nurse or MD to meet regulatory requirements of reasons for continued use
- Thorough nursing documentation of foley insertion, care and removal

REFERENCES