

Can't Attribute UTI To Insertion: Utilizing Data to Prevent CAUTI



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PURPOSE

- To utilize data to identify populations at risk & develop focused initiatives to further decrease catheter associated urinary tract infections (CAUTI)

BACKGROUND

- Per the CDC, urinary tract infections (UTI) are the 4th most common type of healthcare-associated infection and virtually all are caused by instrumentation of the urinary tract
- On average, 12-16% of all adult inpatients will have an indwelling urinary catheter (IUC)
- Each day the IUC is in place the patient has 3-7% increased risk of acquiring a CAUTI
- Estimated cost of CAUTI ~ \$11,000 per case
- Aside from medical complications such as cystitis, pyelonephritis, & bacteremia, CAUTI may cause patients discomfort, extend hospitalizations, & increased costs and mortality

INITIATIVES

Multidisciplinary Engagement

A multidisciplinary steering committee created to address rising CAUTI rates including:

- Nursing Leadership and Staff Nurses from ICU, Med-Surg, ED, OR
- Providers
- Infection Prevention Specialists
- Informatics

Identify High Risk Populations

Intensive case review of CAUTI identified these factors:

- Prolonged catheterization - 96% occurred 3 days after placement
- 82% Fecal incontinence
- 78% Enteric pathogens
- Patient risk factors: female gender, obesity, immobility, multiple organ failure
- Primary Services: Cardiology, Cardiothoracic Surgery, Abdominal Surgery, Medicine

Implement Nurse Driven Protocol (NDP)

NDP empowers nurses to insert, maintain, & remove urethral catheters based on specific criteria.

Indications for IUC:

- Intensive monitoring (q1-2 hrs)
- End of Life request
- Profound prolonged immobility (unstable spine)
- Urinary incontinence & perineum wound breakdown
- Urinary outlet obstruction
- Urological surgery
- Bladder dysfunction

Trial Novel Peri-Care Product & EMR Enhancements

A trial of colloidal silver wipes (bactericidal & bacteriostatic) in all 4 intensive care units & 2 step down units.

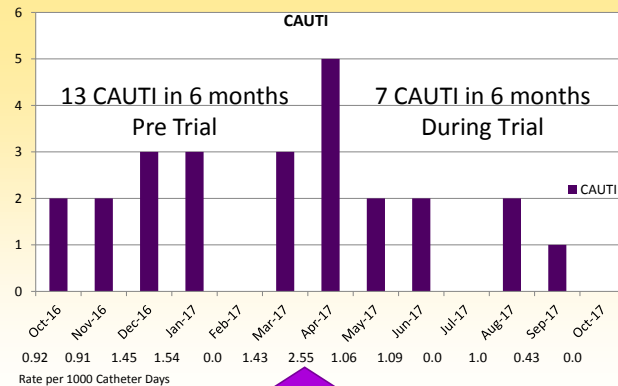
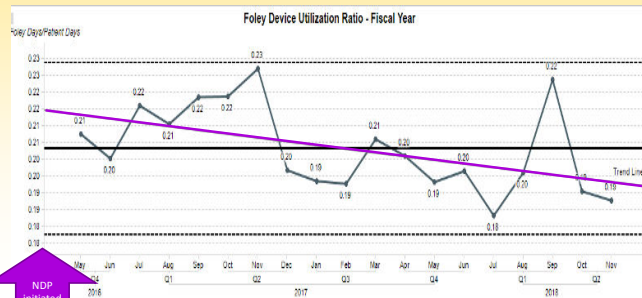
Colloidal silver wipes (Theraworx®) utilized with peri-care twice a day, & as needed after incontinence.

EMR documentation of peri-care revised to improve workflow & to facilitate data capture of CAUTI prevention bundle elements.



EVALUATION/OUTCOMES

- Urinary catheter device utilization decreased since NDP implemented
- CAUTI rate per 1,000 catheter days decreased
- 46% reduction in CAUTI events during trial



IMPLICATIONS FOR PRACTICE

- Through multi-disciplinary engagement & review of epidemiologic data, high risk populations for CAUTI were identified
- The high risk populations related to maintenance of IUC, not insertion
- With the implementation of a NDP & a trial of a novel peri-care product, CAUTI rates reduced 46%
- Colloidal silver wipes are now available for CAUTI prevention hospital-wide

FUTURE WORK

- Further implications for study include:
- The development of an automated report based on nursing documentation that identifies patients at high risk for CAUTI in real-time
 - Identifying potential barriers to NDP adherence & develop strategies to enhance use
 - Consider alternate uses of colloidal silver wipes – alternative for CLABSI, total body decolonization

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