

## REDUCTION OF CATHETER-ASSOCIATED URINARY TRACT INFECTION IN THE ADULT NEURO-ICU

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**Purpose:** In a population of adult Neuro ICU patients, will implementing an evidence-based “intervention bundle” result in a 50% reduction in catheter associated urinary tract infections (CA-UTIs) when compared to current care processes.

**Background:** According to the Centers for Disease Control and Prevention (CDC), healthcare associated infections are one of the top ten leading causes of death in the United States and CA-UTIs are the most frequent type of healthcare associated infections. As of October 2008, The Centers of Medicare & Medicaid Services (CMS) identified hospital acquired CA-UTIs as preventable and will no longer pay for care associated with their treatment.

**Methods:** Timeline: January-June 2009. Develop tool to collect baseline CA-UTI data in the adult Neuro ICU utilizing National Healthcare Safety Network (NHSN)/CDC surveillance criteria. Search literature for evidence-based interventions. Develop standardized nursing procedure: Indwelling Urinary Catheter Insertion and Care.

Timeline: July 2009. Introduce the *Bladder Bundle* and educate nursing leadership, charge, and staff nurses. Monitor progress through daily CA-UTI reports and charge nurse audits.

**Results:** Two months post intervention, device utilization (DU) rates fell from an average of 83% to 73% (DU = # indwelling catheter days / # patient days) and CA-UTI rates (CA-UTI Rate = # CAUTIs / # indwelling catheter days x 1000) identified from an average of 12 to 7.2 per 1000 urinary catheter days.

**Conclusions:** Based on these results, the project will continue and possibly spread to other units as we share our process. Data collection, audit tools and standardized nursing procedure *Indwelling Urinary Catheter Insertion and Care* developed are adaptable to other units hospital wide. Limitations include: catheters inserted pre-admission; need for catheters remain; full compliance of the *Bladder Bundle*.

### **Selected References:**

APIC Guide 2008. Guide to the Elimination of Catheter-Associated Urinary Tract Infections

[http://www.apic.org/Content/NavigationMenu/PracticeGuidance/APICEliminationGuides/CAUTI\\_Guide.pdf](http://www.apic.org/Content/NavigationMenu/PracticeGuidance/APICEliminationGuides/CAUTI_Guide.pdf)

Catheter-Associated Urinary Tract Infection (CAUTI) Event

<http://www.cdc.gov/nhsn/pdfs/pscManual/7pscCAUTIcurrent.pdf>

Guideline for Prevention of Catheter-associated Urinary Tract Infections

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[http://www.cdc.gov/ncidod/dhqp/gl\\_catheter\\_assoc.html](http://www.cdc.gov/ncidod/dhqp/gl_catheter_assoc.html)

**Keywords:** urinary tract infection, indwelling urinary catheter, evidence-based practice.