



Caution! CAUTI-Free Zone: Improving Outcomes in Heart Failure Patients

Cone Health Heart Failure Unit Greensboro, North Carolina

Laurie Freeman BSN, CHFN, Courtney Gentry, MHA, BSN, RN-BC, Mandesia Hairston, BSN, RN, CMSRN,
Lanisha Hunter, MHA, BSN, RN-C, Ana Maria Magbitang, BSN, RN, CCRN, Monette Mabolo, MBA, MSN, RN, NEA-BC, Trevis Morrison, NS, Lauren Muller, BSN, PCCN, Juanita Futrell, BSN, RN,
Denequal Brown, BSN, RN, Nellie Buck, BSN, RN, Taiwo Tijani, BSN, RN



Burning Clinical Question

Will intentional daily rounding combined with focused staff education reduce the incidence of Catheter Associated Urinary Tract Infections (CAUTI) on adult inpatients?

Background/Trigger

- Indwelling urinary catheters (Foley catheters) are commonly used for Heart Failure (HF) inpatients
- Foley catheters are used in HF patients to monitor strict intake and output related to IV/PO diuretic administration
- Our 37 bed Heart Failure Department had the highest CAUTI rate in the health system related to our increased catheter utilization rates and number of device days
- We formed an Evidence Based Practice (EBP) team which included bedside nurses, nurse technicians, nurse secretary monitor technicians (NSMT), and department leadership
- The team identified inaccurate intake and output documentation, staff knowledge deficits, and an inconsistent use of the urinary catheter protocol

Daily Rounding Tool

Data Collection Form: Catheter Use and Care Compliance							
Month	Year	Auditor	Department				
Components of Care							
Securement- Is the foley properly secured to the leg?	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	
When the patient is in the bed, the drainage tubing is not coiled; no dependent loops and flows straight from patient to bag.	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	
Drainage bag is secured to bed and is not lying on floor	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	
A red seal is present from drainage bag to catheter (a closed system)	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	D-Yes/No	
Patient Name, MRN, & Room #:							
Comments:							

Evidence

- CAUTI is the most frequent hospital acquired infection which often leads to significant complications
- Risk factors for developing CAUTI:
 - Duration of catheter utilization
 - Female gender
 - Older age
 - Improper sterile technique during insertion
 - Failure to maintain a closed drainage system
- Strategies to prevent CAUTI:
 - Implement a quality improvement program to reduce Foley catheter use and associated urinary tract infection
 - Consider alternatives to avoid Foley catheter use
 - Limit the duration of catheterization
 - Develop a protocol allowing nursing to remove catheters for patients who meet specified criteria
 - Provide guidelines to manage urinary retention after catheter removal, which may include bladder scanners
- Involve department leadership in providing feedback on unit-specific CAUTI rates and staff accountability
- Staff Education to include:
 - Insertion, maintenance, and removal of urinary catheters
 - CAUTI prevention strategies including:
 - Securing indwelling catheters
 - Maintain sterile, continuously closed drainage system
 - Collect urine samples from cleansed port
 - Maintain unobstructed urine flow
 - Empty urine collection bag regularly
 - Keep urine collection bag below the level of the bladder
 - Peri/Foley care done twice a day

Practice Change

- Our team decided to use the Iowa Model to examine the evidence on CAUTI prevention
- We incorporated these Evidence Based Practices to include the following:
 - Protocol driven care
 - Catheter removal within 24-48 hours
 - Perform and document proper peri/Foley care
 - Included peri/Foley care as a required unit annual competency for all RN & NT's
 - Catheter secured to leg
 - Tubing unobstructed
 - Drainage bag secured to the bed and not on the floor
 - Closed system maintained
 - Maintain sterile field during insertion
 - Utilize system wide urinary catheter guidelines for insertion and removal
 - Patient and family education
- Institute intentional daily rounding by NSMT using standardized audit tool to monitor:
 - Identify all Foley catheters in use
 - Track device days and identify indications for continuous use
 - Bedside observations to monitor protocol compliance
 - Friendly reminders for Foley removal to RN and MD
- Education provided to all nursing staff via "Blitz Day"
 - Skills demonstration of peri/Foley care, Foley insertion, and sterile technique
 - CAUTI survey
 - CAUTI tips sheet
- Post-education documentation was audited by leadership daily for 60 days with continued monthly audits conducted by the EBP team

Evaluation

- Implementation of daily rounding combined with focused staff education dramatically reduced our rate of CAUTIs
- After seven (7) months CAUTI free, we had two (2) CAUTI that prompted the team to regroup to develop a case study to re-educate and focus staff. We are now 12 months CAUTI free.
- Our daily rounding process continues to keep CAUTI prevention at the forefront of our minds



Nursing Implications

- This EBP project has positively impacted nursing practice by:
 - Improving staff morale through teamwork
 - Increasing patient satisfaction
 - Decreasing Foley utilization
 - Promoting early removal of Foley catheters
 - Enhancing understanding of how evidence based practice impacts clinical practice
- Protocol driven care and increased staff awareness has dramatically reduced the incidence of CAUTI on our department
- The department received system wide and Magnet recognition for our successful initiatives

References

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Results

