

Partnership for Patients



ALASKA STATE HOSPITAL &
NURSING HOME ASSOCIATION



Washington State
Hospital Association

Safety Action Bundle: Catheter-Associated Urinary Tract Infection (CAUTI)

Background

- Catheter-associated urinary tract infection (CAUTI) is one of the most common types of health care associated infection (HAI). It is estimated that more than 13,000 deaths each year are associated with UTIs.ⁱ Virtually all healthcare-associated UTIs are caused by instrumentation of the urinary tract and therefore are preventable.ⁱ
- 12-16% of all hospital inpatients may have a short-term, indwelling urinary catheter placed during their hospital stay.ⁱⁱ A significant portion of these catheters are placed without appropriate indications.ⁱⁱⁱ
- Complications associated with CAUTI cause discomfort to the patient, prolonged hospital stays, and increased cost and mortality.ⁱⁱⁱ
- Patients with indwelling urinary catheters are at greater risk for developing UTIs. The risk of bacteriuria increases with each day of use:ⁱⁱⁱ
 - Per day: ~5 percent
 - 1 week: ~25 percent
 - 1 month: ~100 percent



- An estimated 17 percent to 69 percent of CAUTI may be preventable with implementation of evidence-based practices.^{iv}

Aim

To reduce the incidence of CAUTI by 20% by September 27, 2018.

* *Hospitals in top quartile (zero) should focus on maintenance and hardwiring.*

Measures

Outcome: CAUTI per Centers for Medicare and Medicaid (CMS), National Healthcare Safety Network (NHSN) and Washington State requirements

Submit: NHSN and Hospital Compare

Core Strategies

Strategy	Description
Patient and Family Engagement	<ul style="list-style-type: none"> □ Encourage and support patient and family participation in care planning and decision making by using tools like the “Prevent Urinary Tract Infections” checklist offered by Campaign Zero^v. □ Educate patient and family on bundle, how they can participate in CAUTI prevention, and why the catheter needs to be removed as soon as possible. □ When an infection occurs, interview all staff, patient, and family for ways in which this might have occurred and been prevented.
Culture	<ul style="list-style-type: none"> □ Promote a blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment. □ Encourage collaboration across ranks and disciplines to seek solutions for patient safety problems. □ Identify medical and front-line staff champions. □ Promote transparency of CAUTI results by displaying on units, to the board and to the public.
Leadership	<ul style="list-style-type: none"> □ Set aims, goals and timelines for practice changes. □ Identify administrative and clinical leaders to champion. □ Educate care providers including assessment of need for urinary catheter, insertion, care and maintenance, removal and daily assessment of clinical need, the risk of CAUTI, and general infection prevention strategies. Ensure that new staff are educated as they begin caring for patients. □ Ensure that any health care professional who inserts a urinary catheter undergo a credentialing process demonstrating aseptic technique and use of bundle to ensure their competency before they independently insert. □ Ensure that all health care professionals who insert urinary catheters have ongoing education and competence assessments at regular intervals^{vi}. □ Educate clinicians about alternative, noninvasive strategies^{vii}. □ Develop a nurse-directed protocol for removal and empower nursing staff to remove catheters that are no longer indicated. □ Consider a process for recognizing staff or units for their work in reducing catheter days. □ Identify and address barriers to compliance with catheter insertion, care and removal policies.

Strategy	Description
Insertion of Catheter	<ul style="list-style-type: none"> □ Implement facility criteria for use of indwelling catheters. For example: <ol style="list-style-type: none"> 1. Urinary retention or blockage is present. 2. Perioperative use in selective surgeries^{vi}. 3. Assist healing in perineal or sacral wounds in patients with incontinence. 4. Hospice/comfort/palliative care. 5. Immobilized due to trauma or surgery. 6. Chronic indwelling catheter POA. 7. Measurement of urinary output in the critically ill patient. 8. Neurogenic bladder. □ Ensure that only trained personnel insert urinary catheters and that they receive ongoing periodic assessment of competency. □ Encourage using two staff members for catheter insertions. The second staff member can assist with patient positioning and gather additional supplies if needed. □ Consider development of a urinary catheter insertion team if CAUTI rates remain high. □ Always wash hands and wear gloves when inserting or handling urinary catheters. □ Ensure that supplies necessary for aseptic-technique catheter insertion are available (sterile gloves, drape, and sponges; a sterile or antiseptic cleaning solution for the urethral meatus; single dose sterile lubricant.) □ Always choose the smallest catheter possible that can provide proper drainage with least amount of trauma to the urethra. □ Properly secure catheter after insertion to prevent movement and urethral traction. □ Implement a standardized process for documentation that includes indication for catheter insertion, date and time of insertion, individual inserting catheter and date and time of catheter removal. □ Develop a protocol that incorporates bladder scanners and use of intermittent catheterization for management of urinary retention.

Strategy	Description
Ensure Appropriate Care and Maintenance of Urinary Catheters	<ul style="list-style-type: none"> □ Maintain a closed drainage system. If the drainage system must be changed due to leaks, replace the collection system using aseptic technique and disinfecting the catheter tubing junction before applying the new system. □ Avoid intermittent irrigation. The use of CBI is preferred. If the catheter is obstructed and it is still required, replace the catheter and drainage system. □ Maintain unobstructed urinary flow without kinks. The drainage bag should always be below the bladder and emptied frequently. □ Collection containers should never be used on multiple patients or be allowed to touch the spigot on the drainage bag. □ When sampling urine always disinfect the port and use a sterile needle and syringe to draw out specimen. □ Follow a protocol for daily patient hygiene and catheter care including appropriate technique to avoid contamination and the use of soap and water or appropriate disposable cleansing cloths for meatal care. □ Ensure ancillary staff having contact with urinary catheter systems have education stressing correct techniques for care.
Remove Catheters as Soon as Possible	<ul style="list-style-type: none"> □ Implement a process to monitor catheters daily for necessity. Often this can be incorporated into change-of-shift handoff. □ Remove catheters that no longer meet the criteria list. Have a plan for alternatives to indwelling catheters, i.e. bladder scans, intermittent catheters, and condom catheters. □ Develop a nurse-directed protocol for catheter removal if criteria for necessity are not met and there are no contraindications for removal.
Performance and Variation	<ul style="list-style-type: none"> □ Present your performance compared to others to the board and other key stakeholder groups. □ Know your catheter prevalence and symptomatic CAUTIs by unit and address outliers. □ Consider a no-blame Root Cause Analysis for review of CAUTIs to identify opportunities for improvement and barriers to compliance. □ Encourage a culture of safety where staff feel supported in addressing barriers to best practice directly with their peers.

Moving Towards Zero

Strategy	Description
Daily Monitoring of Catheters	<ul style="list-style-type: none"> □ Expand monitoring and focus on reduction of CAUTI to all areas where the patient’s care includes a urinary catheter. □ Have annual staff training in assessing catheter need, insertion, and early removal of urinary catheters in all inpatient and ambulatory care areas where patients require these devices. □ Ensure appropriate catheter care is completed by staff. □ Minimize usage of catheters through policies which designate when urinary catheters will be routinely used, i.e., which types of surgeries or procedures, minimum criteria for insertion and continuation, etc. □ Collect urinary catheter days by clinical provider to identify potential opportunities. □ Hardwire into computer system or other alert systems appropriate use of indwelling catheters. For example: <ul style="list-style-type: none"> • Assessing need and length of time in use • Alerts or reminders • Stop orders • Protocols for nurse-directed removal of unnecessary catheters

Resources

1. Centers for Disease Control and Prevention. Proper Indwelling Urinary Catheter Maintenance. Retrieved from <https://www.cdc.gov/hai/prevent/tap/resources.html#a4>

ⁱ Centers for Disease Control and Prevention. (2016). *Urinary Tract Infection (UTI) Event January 2016*. Retrieved from <http://www.cdc.gov/nhsn/pdfs/psscmanual/7psccauticurrent.pdf>

ⁱⁱ Felix, K., Bellush, M., & Bor, B. (2014). *Guide to Preventing Catheter-Associated Urinary Tract Infections* (1st ed.). L. Greene (Ed.). Retrieved from http://apic.org/Resource/EliminationGuideForm/0ff6ae59-0a3a-4640-97b5-eee38b8bed5b/File/CAUTI_06.pdf

ⁱⁱⁱ Agency for Healthcare Research and Quality. (2015). *Toolkit for Reducing Catheter-Associated Urinary Tract Infections in Hospital Units: Implementation Guide* (15-0073-2-EF). Retrieved from <http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/hais/cauti-tools/implguide/implementation-guide.pdf>

^{iv} Umscheid C, Mitchell M, Doschi J, et al. “Estimating the proportion of infections that are reasonably preventable and related mortality and cost.” *Infect Control Hosp Epidemiol* 2011 February; 32(2):101–14.

^v <http://www.campaignzero.org/patient-safety-checklists/prevent-urinary-tract-infections/>

^{vi} http://www.jointcommission.org/assets/1/6/HAP_CAUTI_Prepub.pdf

^{vii} <https://www.ahrq.gov/professionals/quality-patient-safety/hais/cauti-tools/guides/implguide-pt3.html>