



Minnesota Hospital Association

Cut CAUTI Bundle

Introduction

The urinary tract infection (UTI) is the most common type of health care-associated infection. According to the Centers for Disease Control and Prevention (CDC), approximately 75 percent of UTIs are associated with urinary catheters. The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter. For every day that a urinary catheter remains in the body, the risk of CAUTI increases 5 percent. It is estimated that half of the patients with urinary catheters do not have an appropriate indication for placement. Therefore, to prevent CAUTIs from occurring, catheters must be used only for appropriate indications and must be removed as soon as they are no longer needed.

The Cut CAUTI Prevention Bundle is intended to be used in all patient care areas in acute care hospitals. The bundle tool kit is a collection of supporting resources and tools to assist hospitals in implementing the bundle.

Cut CAUTI Bundle Elements

1) Multidisciplinary CAUTI team

- 1a) Identify a CAUTI champion that reports to an interdisciplinary performance improvement structure supported by leadership, physicians and nursing [1, 2]
- 1b) Involve front-line staff as local champions [1, 2]

2) CAUTI education and training

- 2a) CAUTI education [1-3] is provided at orientation and regularly thereafter
- 2b) Appropriate indications for catheter use and catheter care [1-3]
- 2c) Hands-on training with competency evaluation that includes [1, 2]:
 - Appropriate indications for catheter use
 - Proper aseptic insertion practices

3) Appropriate indwelling urinary catheter use

- 3a) Insert urinary catheters only when necessary, following CDC/HICPAC indications for urinary catheter insertion and use [1-3]
- 3b) Consider alternatives to indwelling urinary catheters [1-3]
- 3d) Include insertion criteria into urinary catheter order process [1]
 - Utilize the electronic health record to hard wire insertion criteria into order
- 3e) Conduct audits of insertion criteria selected with available clinical information [1, 3]
- 3f) Conduct leader or clinical team rounding to determine whether catheter insertion meets appropriate criteria [1, 2]
- 3g) Proper indwelling urinary catheter insertion, including aseptic technique and sterile equipment [1-3]
 - Use a standardized insertion kit that supports insertion process [2]
 - Utilize a two-person "buddy" system for urinary catheter insertions; second person observes for breaks and assists when needed [2]
 - Use an insertion checklist (completed by second person) that includes [2]:
 - Patient education prior to procedures

- Review for catheter appropriateness, catheter alternatives and catheter order prior to insertion
- Step-by-step insertion technique including hand hygiene
- Documentation of whether buddy system was used

4) Proper catheter maintenance practices

- 4a) Position drainage bag below bladder level and above the floor to prevent reflux or contamination [1-3]
- 4b) Maintain a closed drainage system including connections without obstructions/kinks [1-3]
- 4c) Properly secure catheter to prevent movement and urethral traction [1-3]
- 4d) Empty drainage bag regularly [1-3]
- 4e) Periurethral care – follow routine hygiene (e.g., cleansing of the meatal surface during daily bathing or showering) [1-3]
 - Avoid the use of bath basins and antiseptics (e.g., chlorhexidine gluconate [CHG])
- 4f) Use Standard Precautions, including the use of gloves and gown as appropriate, during manipulation of the catheter or collecting system [1-3]

5) Daily monitoring of indwelling urinary catheters for prompt removal

- 5a) Conduct rounds of all patients with urinary catheters to determine necessity of catheter use [1-3]
 - Conduct at least daily
 - Consider incorporating into already-established rounds
- 5b) Utilize electronic or other reminders such as automatic stop order that requires review of catheter indications and renewal of indwelling catheter order [1-3]
- 5c) Implement a nurse-driven removal protocol to empower nurses to evaluate and discontinue unnecessary urinary catheters [1, 2]

6) Evaluation of CAUTI prevention interventions

- 6a) Conduct CAUTI surveillance using standardized methodology such as National Healthcare Safety Network (NHSN) definitions [1-3]
- 6b) Review and summarize learnings from every CAUTI with clinical team (e.g., Learning from Defects tool) [2]
- 6c) Provide feedback to patient care staff, including:
 - Process measures:
 - Catheter appropriateness (e.g., assess each patient on the unit for presence of a urinary catheter, and then record the reason for the catheter) [1-3]
 - Periodically assess compliance with catheter care and management practices for CAUTI prevention as described in published guidelines [1, 2]
 - Catheter insertion and maintenance technique audits (e.g., calculate the number of staff that used proper technique divided by the number of staff audited for technique, multiplied by 100)
 - Percent of patients with a catheter (number of patients with catheters divided by total number of patients, multiplied by 100) [1]
 - Percent of patients with a catheter inserted in the emergency department (ED) (number of ED admissions [including observation patients] divided by the number of ED admissions with a newly-placed indwelling catheter [including observation patients], multiplied by 100) [4]
 - Outcome measures [1-3] – provide at least monthly:
 - CAUTI rates, number of CAUTIs, or days since last CAUTI
 - Urinary catheter utilization rate (catheter-days divided by patient-days)

Bundle References

1. Lo E, Nicolle LE, Coffin SE, et al. Strategies to Prevent Catheter-Associated Urinary Tract Infections in Acute Care Hospitals: 2014 Update. *Infection Control and Hospital Epidemiology*. 2014;35:464-479. Available at: <http://www.jstor.org/stable/10.1086/675718>
2. Toolkit for Reducing Catheter-Associated Urinary Tract Infections in Hospital Units: Implementation Guide. October 2015. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/quality-patient-safety/hais/cauti-tools/impl-guide/index.html>
3. Gould CV, Umscheid CA, Agarwal RK, Kuntz G, Pegues DA; Healthcare Infection Control Practices Advisory Committee. Guideline for prevention of catheter-associated urinary tract infections 2009. *Infection Control and Hospital Epidemiology*. 2010;31(4):319-26. Available at: www.cdc.gov/hicpac/cauti/001_cauti.html
4. Catheterout.org Appropriate Urinary Catheter Placement in the Emergency Department. Available at <http://catheterout.org/?q=engaging-the-ED>