Catheter-Associated Urinary Tract Infection (CAUTI) Prevention Strategies

A gap analysis is a tool used to assess the difference between actual practice and expected performance. It is useful to compare best practice guidelines against your currently accepted practices. It is important to assess practice through observation and audit rather than relying on if a policy is in place, as practice can vary from policy.

CORE Prevention Strategies = Strategies that should always be in place.

ENHANCED Prevention Strategies = Strategies to be considered in addition to core strategies when:

- a) There is evidence that the core strategies are being implemented and adhered to consistently.
- b) There is evidence that CAUTI rates are not decreasing.

Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Patient and Family Education			
 1a) The patient and family have been educated about their urinary catheter, such as symptoms of a urinary tract infection, catheter care, and what the patient and family can do to help prevent an infection [4]. If Patient and Family Advisory Committee available, consider having them review 			
 educational materials prior to publication 1b) If the patient is to be discharged with an indwelling catheter in place, the patient and family have been educated on how to care for the catheter and symptoms of infection, using teach back method to ensure patient's understanding. 			
Appropriate Catheter Use			
2a) The facility has a process in place to insert urinary catheters only when necessary,			
 2b) Include insertion criteria into urinary catheter order process [1]. 			
 2c) The facility has a process in place to consider the use of alternatives to urinary catheter placement, including [1-4]: Use of condom catheters Straight catheterization 			
 Use of external female catheters 2d) The facility uses a portable ultrasound device to assess the patient's urine volume to 			
reduce unnecessary catheter insertions prior to making a decision regarding catheter placement [2-4].			
The facility's indwelling catheter placement practices include the following indications			
for appropriate placement [1-4]: 2e) Management of acute urinary retention and urinary obstruction (consider use of			
bladder scanner to assess urinary retention). 2f) Strict urine output monitoring in critically ill patients (consider alternatives other than			
indwelling catheters to measure urine output) [1-4]. 2g) Perioperative use for selected surgical procedures such as [1-4]:			
 Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in PACU) Dations anticipated to receive large volume infusions or diverties during surgery 			
 Patients anticipated to receive large-volume infusions of didetics during surgery Need for intraoperative monitoring of urinary output 2h) Patients requiring prolonged immobilization (e.g., potentially unstable thoracic or 			
lumbar spine, multiple traumatic injuries such a pelvic fractures) [1-4].			
[1-4].			
zjj improving connort of care at end of me [1-4].			
The facility sets clear expectations that indwelling catheter placement is not appropriate for the following reasons [2-4]:			
2k) Incontinence. 2l) Specimen collection [3]			
2m) Diagnostic test when patient able to void [3].			

Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Catheter Insertion Practices			
The facility's indwelling core prevention strategies for catheter insertion practices			
 include the following: 3a) Using of a standardized insertion kit that supports insertion process [4]. 3b) Utilizing a two-person "buddy" system for urinary catheter insertions; second person observes for breaks and assists when needed [4]. 3c) Use of an insertion checklist (completed by second person) that includes [4]: 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 3d) Using as small of a catheter as possible to minimize bladder neck and urethral trauma [1,3]. 3e) Practicing hand hygiene immediately before insertion [1-4]. 3f) Practicing aseptic technique and use sterile equipment for insertion. 			
The facilities indwelling enhanced insertion practices for catheter insertion practices include the following:			
 3j) If the CAUTI rate is not decreasing after implementing a comprehensive strategy to reduce rates of CAUTI, a process is in place to evaluate and implement antimicrobial/ antiseptic-impregnated catheters as appropriate [3]. 3k) Consider implementing a "Foley Free Emergency Department" practice to avoid catheter insertion in the ED. 			
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Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Urine Culturing Practices			
5a) Develop standardized practices and indications for obtaining urine cultures based on clinical guidelines (e.g., American College of Critical Care Medicine [5]; Centers for Disease Control and Provention [7]: Infectious Diseases Society of America [7])			
 5b) The facility has a process in place to evaluate practices and indications for ordering urine cultures to support the following practices/rationale [2]: Based on patient signs/symptoms compatible with CAUTI Part of an evaluation of sepsis without a clear source Prior to urologic surgeries where mucosal bleeding anticipated or transurethral resection of prostate Early pregnancy (avoid urinary catheters if possible) 			
 5c) Practices and indications for obtaining urine cultures discourage the following practices [2]: Urine cultures to screen patients on admission (in the absence of CAUTI symptoms) Standing orders for urine cultures in the absence of an appropriate indication Urine quality (pyuria, odor, color, turbidity) to trigger urine culture Ordering urine cultures without a clinical assessment of the patient's condition; ensure that the signs and symptoms are compatible with CAUTI per IDSA Recommendations [2] Pan culturing (i.e., requesting multiple specimens and tests at once in an attempt to identify a possible infection) Reflex orders for urine cultures based on urinalysis results for catheterized patients; each urinalysis result should be evaluated prior to urine culture order Repeat urine cultures to document clearing of bacteriuria 5d) The facility has a process in place that addresses treatment of catheter-associated asymptomatic bacteriuria (presence of bacteria in urine culture without signs/ symptoms of CAUTI); specifically, avoid the use of antimicrobials for asymptomatic bacteriuria except for patients with selected conditions (e.g., undergoing urologic procedures, pregnancy) [1-2, 6-7]. 5e) The facility has a process in place that addresses screening of catheter-associated asymptomatic bacteriuria; specifically, avoid screening patients for asymptomatic bacteriuria except for patients with selected conditions (e.g., undergoing urologic procedures, pregnancy) [1-2, 6-7]. 5e) The facility has a process in place that addresses screening of catheter-associated asymptomatic bacteriuria; specifically, avoid screening patients for asymptomatic bacteriuria except for patients with selected conditions (e.g., undergoing urologic procedures, pregnancy) [1-2, 6-7] and patients at high risk for urinary tract infection [5]. 5f) The facility has a process in place to evaluate uncommunicative, febrile patie			
patterns to determine trends (e.g., among provider groups, specialties, units) [4].			
Indweiling Catheter Removal			
 The facility has a process in place for: 6a) Daily review of catheter necessity [1,3-4]. Consider incorporating into already-established rounds 6b) Utilizing electronic or other reminders such as an automatic step order that reminders 			
 review of catheter indications and renewal of indwelling catheter order [1-4]. 6c) Practicing hand hygiene immediately prior to the removal of the catheter [1]. 6d) Evaluating the need for reinsertion post catheter removal e.g., bladder scanner to assess 			
urinary retention. 6d) Implementation of a nurse-driven protocol to empower nurses to evaluate and discontinue unnecessary urinary catheters [1-2,4].			

Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Documentation			
 The facility's required medical record documentation includes: 7a) Alternatives attempted 7b) Indications for catheter insertion [1,3] 7c) Date and time of insertion/removal [1,3] 7d) Daily review of continued need for catheter use [1] 7e) Ongoing catheter maintenance [1] 7f) Names of all health care personnel (HCP) and prescribers providing catheter care 7g) Utilize electronic or other reminders such as automatic stop order that requires review of catheter indications and renewal of indwelling catheter order [1] 			
Staff Education			
 8a) The facility has education in place for all HCP and prescribers allowed to insert/remove urinary catheters which includes [1-4]: CAUTI education Appropriate adherence to aseptic technique for insertion Appropriate use of catheters (including appropriate indications for insertion and maintenance) Identification and removal of catheters that are no longer needed Adherence to hand hygiene Proper maintenance of catheters 8b) Hands-on training with competency evaluation that includes [1,4]: Appropriate indications for catheter use Proper aseptic insertion practices 8c) Catheter insertion/removal education is conducted as part of the orientation process. 8d) Ongoing competency assessment for catheter insertion/removal is conducted at least annually. 8e) The facility has a process in place to educate healthcare personnel and prescribers on the following topics: Protential adverse effects of inappropriate urine cultures Potential adverse effects of inappropriate urine cultures such as increased utilization due to testing, antimicrobials, consults 			
Monitoring and Evaluating			
 9a) Conduct audits of insertion criteria selected with available clinical information [1-4] 9b) Conduct CAUTI surveillance using standardized methodology such as National Healthcare Safety Network (NHSN) definitions [1,3,4]. 9c) Review and summarize learnings from every CAUTI with clinical team (e.g., Learning from Defects tool) [4]. 			
 A process is in place to provide feedback to patient care staff including: 9d) Process measures, evaluated on a regular basis (e.g., catheter appropriateness, compliance with catheter insertion practices, compliance with catheter maintenance practices, catheter insertion by units/areas [such as the emergency department]. 9e) Outcome measures, evaluated on a regular basis (e.g., CAUTI rates, days since last CAUTI, urinary catheter utilization rates) [1,3,4]. 			
Infrastructure			
 The facility has a process in place to develop a multidisciplinary team to engage staff and guide CAUTI prevention efforts, including: 10a) Identifying a CAUTI champion that reports to an interdisciplinary performance improvement structure supported by leadership, physicians and nursing [1,4] 10b) Involving front-line staff as local champions [1,4]. 			

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