Catheter-Associated Urinary Tract Infections

Scope and Impact of the Problem
Urinary tract infections (UTIs) are the most common nosocomial infection, accounting for up to 40% of infections reported by acute care hospitals.1,2 Up to 80% of UTIs are associated with the presence of an indwelling urinary catheter.3 A catheter-associated urinary tract infection (CAUTI) increases hospital cost and is associated with increased morbidity and mortality.2,5,6 CAUTIs are considered by the Centers for Medicare and Medicaid Services to represent a reasonably preventable complication of hospitalization. As such, no additional payment is provided to hospitals for CAUTI treatment-related costs.5

Expected Practice
- Prior to placement of any indwelling urinary catheter, assess patient for accepted indications and alternatives. [Level C]
- Adhere to aseptic technique for placement, manipulation, and maintenance of indwelling urinary catheters. [Level E]
- Document all instances of indwelling urinary catheters, including insertion date, indication, and removal date. [Level C]
- Promptly discontinue indwelling urinary catheters as soon as indications expire. [Level C]

Supporting Evidence
- Prolonged catheterization is the major risk factor for CAUTIs.7,8
- Twenty-five percent of inpatients and up to 90% of patients in an ICU have a urinary catheter during hospitalization, often without an appropriate indication.4 Indwelling urinary catheters are placed without sufficient rationale, and/or remain in place after indications expire.9
- CAUTIs can be decreased by interventions that facilitate removal of unnecessary catheters.10,11
- Most hospitals have not implemented effective strategies for preventing CAUTIs.12,13

Actions for Nursing Practice
- Develop written guidelines for urinary catheterization, include indications for indwelling urinary catheterization, and ensure that catheter placement is limited to patients who meet indications.
- Have available devices, supplies, and techniques that allow alternatives to indwelling catheters (eg, condom catheters, penis pouches, bladder scanners, incontinence products).
- Design and implement standards and training programs for catheter insertion and manipulation.
- Review the necessity of catheter continuation for all patients with urinary catheters on a daily basis.
- Develop systems to ensure prompt removal of catheters when no longer indicated.
- Implement infection surveillance programs that include unit-based urinary catheter days and rates of CAUTIs.
- Develop action plans to address needed improvements.

AACN Levels of Evidence

Level A  Meta-analysis of quantitative studies or metasynthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment
Level B  Well-designed, controlled studies with results that consistently support a specific action, intervention, or treatment
Level C  Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results
Level D  Peer-reviewed professional organizational standards with clinical studies to support recommendations
Level E  Multiple case reports, theory-based evidence from expert opinions, or peer-reviewed professional organizational standards without clinical studies to support recommendations
Level M  Manufacturer’s recommendations only

Need More Information or Help?
• Contact a clinical practice specialist for additional information (www.aacn.org); then select Practice Resource Network and Ask the Clinical Practice Team.

References