

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

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.
- Lo E, Lindsay N, Classen D, et al. Strategies to prevent catheter-associated urinary tract infections in acute care hospitals. *Infect Control Hosp Epidemiol*. 2008;29:S41-S50.
- HICPAC/Centers for Disease Control and Prevention. Guideline for Prevention of Catheter-Associated Urinary Tract Infections. 2009. http://www.cdc.gov/hicpac/cauti/001_cauti.html. Accessed October 5, 2011.

References

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5. Wald HL, Kramer AM. Nonpayment for harms resulting from medical care. *JAMA*. 2007;298(23):2782-2784.
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