Catheter-Associated Urinary Tract Infections

Scope and Impact of the Problem
Urinary tract infections are the most common nosocomial infection, accounting for up to 40% of infections reported by acute care hospitals.1,2 Up to 80% of urinary tract infections 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 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 (e.g., 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.

AACCN 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

References
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