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## Catheter-Associated UTI Is Rarely Symptomatic

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Catheter-associated (CA) urinary tract infection (UTI) is the most common nosocomial infection, accounting for more than 1 million cases each year in US hospitals and nursing homes. Tambyah and Maki from the University of Wisconsin Medical School at Madison conducted a study to define the clinical features of CA UTI. The setting was a university hospital, and the study included 1,497 newly catheterized patients. Every day that the catheter was in place, a quantitative urine culture and urine leukocyte count were obtained, and the patient was queried by a research worker regarding symptoms. To define the role of CA UTI in patients' symptoms

more precisely, a subset of 1,034 patients (89 of whom developed CA UTI with more than  $10^3$  colony-forming units/mL, who did not have another potentially confounding site of infection besides the urinary tract) was analyzed. Outcome measures were the presence of fever, symptoms commonly associated with community-acquired UTI, and peripheral leukocytosis.

There were 235 new cases of nosocomial CA UTI during the study period. More than 90% of the infected patients were asymptomatic; only 123 infections (52%) were detected by patients' physicians using the hospital laboratory. In the subset analysis, there were no significant differences between patients with and without CA UTI in signs or symptoms commonly associated with UTI—fever, dysuria,

urgency, or flank pain—or in leukocytosis. Only 1 of the 235 episodes of CA UTI that were prospectively studied was unequivocally associated with secondary bloodstream infection.

The authors conclude that, whereas CA UTIs are a major reservoir of antibiotic-resistant organisms in the hospital, they are rarely symptomatic and infrequently cause bloodstream infection. Symptoms referable to the urinary tract, fever, or peripheral leukocytosis have little predictive value for the diagnosis of CA UTI.

FROM: Tambyah PA, Maki DG. Catheter-associated urinary tract infection is rarely symptomatic: a prospective study of 1,497 catheterized patients. *Arch Intern Med* 2000;160:678-682.