

Longer treatment for male UTI not associated with reduced early or late recurrence risk

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A study of more than 33,000 outpatient male veterans suggests that a longer duration of antimicrobial treatment of more than seven days for a urinary tract infection (UTI) appeared not to be associated with a reduced risk of early or late recurrence compared to a shorter duration (seven days or less) of treatment, according to a report published Online First by *Archives of Internal Medicine*, a JAMA Network publication.

The optimal treatment duration for UTI in ambulatory, noncatheterized women is well defined, but the optimal treatment duration in men is unknown. Duration of antimicrobial treatment is important because an insufficient treatment duration can lead to [recurrent disease](#), but prolonged treatment can increase costs, promote antimicrobial resistance and increase the risk of Clostridium difficile infection (CDI, which can be contracted after prolonged [use of antibiotics](#)), according to the study background.

Dimitri M. Drekonja, M.D., M.S., and colleagues with the Minneapolis Veterans Affairs [Health Care System](#), Minnesota, used administrative data from the Veterans Affairs Computerized Patient Record System to evaluate treatment patterns for male UTI among outpatients and to assess the association between treatment duration and outcomes, including UTI recurrence and CDI.

Researchers identified 39,149 UTI episodes involving 33,336 unique

patients, including 33,336 index cases (85.2 percent), 1,772 early recurrences (4.5 percent) and 4,041 late recurrences (10.3 percent), according to the study results. Patients had an average age of 68 years.

"We found that two drugs (ciprofloxacin and [trimethoprim](#)-sulfamethoxazole) were used to treat most male UTI episodes and that the treatment duration varied substantially within the recommended seven to 14 days (84.4 percent of patients) and outside of this range (15.6 percent of patients). Most important, compared with shorter-duration treatment (≤ 7 days), longer-duration treatment (> 7 days) exhibited no association with a reduced risk for early or late recurrence," the authors comment.

Of the index UTI cases, 4.1 percent were followed by early recurrence and 9.9 percent by late recurrence. While longer-duration of treatment was not associated with a reduction in early or late recurrence, it was associated with increased late recurrence compared with shorter-duration treatment (10.8 percent vs. 8.4 percent). Also, C difficile infection risk was higher with longer-duration vs. shorter-duration treatment (0.5 percent vs. 0.3 percent), according to the study results.

Researchers suggest their findings "question the role" of longer-duration treatment for male UTI in the outpatient setting.

"A randomized trial is needed to directly assess the benefits and harms of shorter-duration vs. longer-duration treatment for male UTI," the authors conclude.

In a related research letter, Dimitri M. Drekonja, M.D., M.S., of the Minneapolis Veterans Affairs Health Care System, Minnesota, and colleagues suggest that preoperative cultures (UCs) of urine are ordered inconsistently and that treatment of preoperative bacteriuria appears to be associated with no benefit, based on a review of medical records for

patients undergoing 1,934 cardiothoracic, orthopedic and vascular procedures (Online First).

In an accompanying commentary, Barbara W. Trautner, M.D., Ph.D., of the Michael E. DeBakey Veterans Affairs Medical Center, Baylor College of Medicine, Houston, Texas, writes: "Most studies on the treatment of acute urinary tract infection (UTI) in outpatients have been performed in women, usually premenopausal women."

"What both studies can do, and indeed do effectively, is to call into question current [treatment](#) practices concerning bacteriuria in men," Trautner continues. "We recommend a culture shift in antibiotic prescribing practices for men with bacteriuria from 'more is better' to 'less is more.' Widespread antimicrobial resistance, appreciation of the human microbiome, outbreaks of CDI [[Clostridium difficile infection](#)], and emphasis on cost-effective care discourage the indiscriminate use of antibiotics."

"On the other hand, the studies commented on herein encourage more judicious use of antibiotics by failing to find evidence of clinical benefit with longer courses of antibiotics or with additional courses of preoperative antibiotics. As we continue to explore UTI in the male half of the population, these articles are a timely reminder that standard practice is not always best practice and that critical thinking is required to recognize the difference," Trautner concludes.

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