

Study finds daily antibiotics most effective in preventing recurrent urinary tract infection

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While daily antibiotic use is the most effective method for preventing recurrent urinary tract infections in women, daily cranberry pills, daily estrogen therapy and monthly acupuncture treatments also have benefits that may be preferable for some patients, according to a new study by researchers at the Los Angeles Biomedical Research Institute (LA BioMed).

The study, published in the Jan. 15 issue of the journal, *Clinical Infectious Diseases*, said more than half of women suffer from a [urinary tract infection](#) at some time in their lives, often requiring antibiotics or other treatments to recover from the infections.

A smaller group of women will have three or more urinary tract infections per year and may require a more pro-active course of treatment to prevent these recurrent infections. The LA BioMed study is the first to use a modeling approach to compare the effectiveness of all of the most commonly used prophylactic measures.

"We described the benefit of each common management option so that women can find an approach to recurrent urinary tract infections that fits their needs," said Loren G. Miller, MD, MPH, LA BioMed infectious disease specialist and lead researcher for the study. "Daily antibiotic usage is the most beneficial by far in preventing recurrent urinary tract infections, but there are benefits to other forms of treatment as well for women who don't want to take antibiotics."

Urinary tract infections cause pain and often require women to miss work or school. They result in more than 6 million outpatient visits and 479,000 hospitalizations per year. The cost to society is estimated to be more than \$2.47 billion annually.

The LA BioMed study compared the findings from previous studies and found that daily antibiotic usage reduced the urinary tract infection recurrence rate to 0.4 per year. Acupuncture therapy reduced the recurrence rate to 0.7 per year, but the study data is somewhat limited. Cranberry pills and estrogen therapy reduced the recurrence rate to 1.1 per year. Another approach is self-diagnosis and treatment of [urinary tract](#) infections, which, while not reducing recurrence rates, was associated with the highest quality of life of all management strategies.

All of these approaches saved money for insurance providers. All of these approaches – except for self-diagnosis and treatment – added to patients' out-of-pocket costs, from a mean of \$140 per year for antibiotics to a mean of \$946 a year for acupuncture. The researchers noted that patients usually bore most or all the cost of acupuncture, while health insurance often covered all or part of the cost of antibiotics.

"This study provides comparisons of prevention approaches so [women](#) can knowledgeably discuss with their providers the most appropriate way for them to manage [recurrent urinary tract infections](#)," said Dr. Miller. "Because patient preferences are very diverse, we laid out the benefits and costs of each approach to help the patient and provider choose an approach that best suits the patient's lifestyle and preferences."

Provided by Los Angeles Biomedical Research Institute at Harbor

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