

# Screening for Asymptomatic Bacteriuria: Recommendation Statement: United States Preventive Services Task Force

United States Preventive Services Task Force

## Citation

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## Abstract

### Figure 3



Agency for Healthcare Research and Quality

### Figure 2



US Department of Health and Human Services

## SUMMARY OF RECOMMENDATIONS

The U.S. Preventive Services Task Force (USPSTF) strongly recommends screening for asymptomatic bacteriuria with

urine culture for pregnant women at 12-16 weeks' gestation. A recommendation

The USPSTF found good evidence that screening pregnant women for asymptomatic bacteriuria with urine culture significantly reduces symptomatic urinary tract infections, low birth weight, and preterm delivery. The benefits of screening and treatment substantially outweigh any potential harms.

The USPSTF recommends against routine screening for asymptomatic bacteriuria in men and non-pregnant women. D recommendation

The USPSTF found fair evidence that screening men and non-pregnant women for asymptomatic bacteriuria is ineffective in improving clinical outcomes. In the absence of evidence of benefit, the potential harms associated with overuse of antibiotics are especially significant.

## CLINICAL CONSIDERATIONS

- The screening tests used commonly in the primary care setting (dipstick analysis and direct microscopy) have poor positive and negative predictive value for detecting bacteriuria in asymptomatic persons. Urine culture is the gold standard for detecting asymptomatic bacteriuria but is expensive for routine screening in populations with a low prevalence of this condition. Results from one study done with a new enzymatic urine-screening test (Uriscreen™) showed that the test has a sensitivity of 100% and a specificity of 81%.
- Good evidence exists that screening pregnant women for asymptomatic bacteriuria with urine culture (rather than urinalysis) significantly reduces symptomatic urinary tract infections, low

birth weight, and preterm delivery. A specimen obtained at 12-16 weeks' gestation will detect approximately 80% of patients with asymptomatic bacteriuria. The optimal frequency of subsequent urine testing during pregnancy is uncertain.

- Good evidence exists that screening individuals other than pregnant women for asymptomatic bacteriuria does not significantly improve clinical outcomes. Results from a study of women with diabetes who were treated for asymptomatic bacteriuria demonstrated no reduction in complications.<sup>4</sup> Although there were short-term results in clearing bacteriuria with antimicrobial therapy, there was no decrease in the number of symptomatic episodes or hospitalizations over the long term. Furthermore, the high rate of recurrence of bacteriuria in those who were screened and treated resulted in a marked increase in the use of antimicrobial agents.

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\*Members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to <http://www.ahrq.gov/clinic/uspstfab.htm>.

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## **APPENDIX A**

### **U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATIONS AND RATINGS**

The Task Force grades its recommendations according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):

A. The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.

B. The USPSTF recommends that clinicians provide [the service] to eligible patients. The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.

C. The USPSTF makes no recommendation for or against

routine provision of [the service]. The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.

D. The USPSTF recommends against routinely providing [the service] to asymptomatic patients. The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.

I. The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. Evidence that [the service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.

## **U.S. PREVENTIVE SERVICES TASK FORCE STRENGTH OF OVERALL EVIDENCE**

The USPSTF grades the quality of the overall evidence for a service on a 3-point scale (good, fair, poor):

Good: Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

Fair: Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

Poor: Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

## **References**

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4. Harding GKM, Zhanel GG, Nicolle LE, Cheang M. Antimicrobial treatment in diabetic women with asymptomatic bacteriuria. *N Engl J Med.* 2002; 347(20):1576-1583.

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