

## **Asymptomatic bacteriuria screening and treatment rates in a rural community hospital**

**1. Purpose:** The Infectious Diseases Society of America (IDSA) recommends against routine screening and treatment of asymptomatic bacteriuria for the majority of patients. Despite the availability of specific guidelines, asymptomatic bacteriuria is one of the most common reasons for unnecessary antibiotic prescriptions in acute care settings. The purpose of this study is to determine screening and treatment rates of asymptomatic bacteriuria in a rural community hospital.

**2. Methods:** This study was approved by the Institutional Review Board. The electronic health record was used to identify all inpatients with positive urine cultures from July 1, 2019 to September 30, 2019. The following data were collected: age, sex, type of bacteria grown on culture, antibiotic type, strength, and frequency, presence of a catheter, number of days of drug therapy, and length of hospital stay. Data was reviewed to identify patients who were inappropriately screened and treated with antibiotics. Patients with documented urinary tract infection symptoms, pregnancy, recent or planned urological surgery, an absolute neutrophil count of less than 100, receiving treatment for a concurrent infection, admitted on a course of antibiotics for treatment of urinary tract infection, or patients who were not admitted to the hospital were excluded.

**3. Results:** 127 patients met inclusion criteria. Patients were most commonly excluded due to receiving antibiotic treatment for a concurrent infection (n=37). Of 127 patients included in the study, 50 patients (39.3%) were screened unnecessarily. Of the 50 patients screened unnecessarily, 26 patients (52%) were also treated with antibiotics.

**4. Conclusions:** Patients with asymptomatic bacteriuria were treated unnecessarily with antibiotics more than half the time. This evaluation did not capture patients who were treated without collecting a urine culture or those who were treated but had a negative urine culture; therefore, screening and treatment rates may be underestimated. Development and implementation of an intervention is needed to help increase guideline familiarity and curtail inappropriate antibiotic use.