



Proof Source: Pneumococcal Urinary Antigen Testing in United States Hospitals: A Missed Opportunity for Antimicrobial Stewardship

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“For these patients, positive UAT can guide antibiotic de-escalation and, given that UAT is easy, rapid, sensitive, and specific, we believe it should be a recommended component of the workup of pneumonia for any patient receiving broad-spectrum antibiotic coverage.”

The Infectious Diseases Society of America/American Thoracic Society (IDSA/ATS) recommends urinary antigen testing (UAT) to identify *Streptococcus pneumoniae* in pneumonia patients and allows for narrowing of antibiotic therapy following a positive UAT result. However, these guidelines do not generally recommend UAT for patients outside the intensive care unit (ICU), and broad-spectrum antibiotics are often used to treat non-ICU patients. Investigators conducted a retrospective study of adult pneumonia patients admitted to 170 hospitals in the United States over a 5-year period. The study showed that overall use of UAT continuously increased and doubled during the study period and that further adoption could support individual patient antibiotic de-escalation and antibiotic stewardship efforts.

Patients with positive UAT were more likely to have their antibiotic therapy narrowed by day 3. Blood and sputum cultures from positive UAT patients were more likely to grow *S. pneumoniae* with a lower probability of a nonpneumococcal pathogen being present when compared to patients with negative UAT.

Investigators concluded that UAT is a useful tool for quick identification of pneumonia caused by *S. pneumoniae*, allowing for an appropriate de-escalation of antibiotic therapy following a positive UAT result. In addition to the stewardship advantages of narrowing antibiotic therapy, reduced disturbance of patient normal microflora and fewer adverse effects associated with broad spectrum antibiotics are also benefits of antibiotic therapy de-escalation.

Summary

- UAT is inexpensive, accurate, and rapid and could be a useful tool for increasing antimicrobial stewardship
- Overall UAT use increased steadily, doubling by the end of the study period
- Positive UAT patients were more likely to have antibiotic therapy narrowed
- Compared to negative UAT patients, no increase in likelihood for adverse outcomes seen in patients whose therapy was narrowed due to positive UAT
- Patients with positive UAT were more likely to grow *S. pneumoniae* and less likely to grow nonpneumococcal organisms