

STREPTOCOCCUS PNEUMONIAE URINARY ANTIGEN TEST

TriCore Reference Laboratories is pleased to announce that it now offers *Streptococcus pneumoniae* Urinary Antigen testing to aid in the diagnosis of pneumococcal pneumonia.

Streptococcus pneumoniae is the most common cause of community-acquired pneumonia and a major pathogen in healthcare-associated pneumonia. This test is useful to aid in the diagnosis of community-acquired pneumonia caused by *Streptococcus pneumoniae* by detecting the presence of pneumococcal antigen in urine. This test should be used in combination with blood and sputum cultures for diagnosis of community acquired pneumonia. The urinary antigen results are available within 24 hours of receipt in the lab and are not impacted by prior antibiotic use up to 3 days prior to specimen collection.^{1,2} Blood and/or sputum cultures are still necessary for susceptibility testing if an isolate is recovered and should be collected any time the urinary antigen test is performed.

The streptococcal urinary antigen test should not be used to diagnose meningitis, otitis or other causes of pneumococcal disease. In the case of a negative test, infection due to *S. pneumoniae* may be present since the antigen in the specimen may be below the detection limit of the test. Results should be correlated with other clinical parameters including patient history and physical exam.

Test Advantages

- Ease of availability of urine specimens
- Improved sensitivity for the detection of pneumococcal pneumonia compared to blood or sputum cultures³
- Results are available within 24 hours compared to 3-5 days for blood or sputum cultures
- Test may be used even if patient has initiated antibiotics up to 3 days prior to specimen collection^{1,2}

Testing information can be found on the reverse side of this sheet. For more information, please refer to TriCore's test directory on TriCore.org.

REFERENCES

¹ Musher D, Montoya R, Wanahita A. Diagnostic value of microscopic examination of gram-stained sputum and sputum cultures in patients with bacteremic pneumococcal pneumonia. *Clin Infect Dis*. 2004;29:165-9.

² Mandell LA, Wunderink RG, Anzueto A, et al. Infectious Disease Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. *Clin Infect Dis*. 2007;44:S27-72.

³ Horita N, Miyazawa N, Kojima R, et al. Sensitivity and specificity of the Streptococcus pneumonia urinary antigen test for unconcentrated urine from adult patients with pneumonia: a meta-analysis. *Respirology*. 2013;18:1177-83.

Streptococcus pneumoniae Antigen Urine

TEST CODE	CPT CODE	METHODOLOGY	TESTING PERFORMED	REPORTED
USTREP	87899	Qualitative Immunochromatography	Daily	Within 12-48 hours

ORDERING

Ordering Instructions	Patients who have received the <i>S. pneumoniae</i> vaccines may test positive in the 48 hours following vaccination. It is recommended to avoid testing within five days of receiving vaccination.
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COLLECTION

Specimen	Urine
Collection Containers	Sterile Container
Collection Instructions	Clean Catch
Rejection Criteria	Specimen types other than urine are unacceptable

PROCESSING

Specimen Processing Instructions	Mix urine specimen well. Transfer 4.0 mL (minimum 1.0 mL) urine into sterile container. Refrigerate.
Processed Amounts	Preferred 4.0 mL Minimum 1.0 mL

SHIPPING/TRANSPORT AND STORAGE

Stabilities/Storage (Collection to initiation of testing)	Temperature	Stability
	Ambient	1 day
	Refrigerated	2 weeks
	Frozen	2 weeks
Shipping Instructions	Ship refrigerated	