

DIAGNOSING LEGIONNAIRES' DISEASE: BEST PRACTICES



Public health needs your assistance with diagnosing and reporting cases of [Legionnaires' disease](#) to help determine possible sources of exposure to [Legionella](#).

Diagnostic testing

The only way to determine if a patient with pneumonia has Legionnaires' disease is by collecting appropriate specimens and ordering specific [diagnostic tests](#). As a best practice, **order both of the following**:

1. *Legionella* urinary antigen test



2. *Legionella* culture of sputum or other lower-respiratory specimen

Legionella will not grow on standard media used for routine sputum cultures.

A *Legionella* culture must be specifically ordered.

Why is *Legionella* culture important?

Culture can identify all species and serogroups of *Legionella* that can cause disease, unlike the urinary antigen test, which only detects *Legionella pneumophila* serogroup 1.

Having clinical isolates of *Legionella* is essential to determine links among clinical cases and with environmental sources.



Who should be tested for Legionnaires' disease?

Patients with pneumonia who:

- Have failed outpatient antibiotic therapy for community-acquired pneumonia.
- Have severe illness, such as those requiring admission to the intensive care unit.
- Are immunocompromised.
- Have traveled away from their home within 14 days before illness onset.
- Have a known or possible exposure to *Legionella* (for example, during an outbreak).
- May have healthcare-associated pneumonia (onset 48 hours or more after admission).

Consider testing patients with pneumonia who:

- Are age 50 years or older.
- Are current or former smokers.
- Have chronic lung disease, such as emphysema or COPD.
- Have cancer or other underlying illness, such as diabetes, renal failure, or hepatic failure.

