

Health Alert

Increase in Legionnaires' Disease in Northeast Philadelphia

September 07, 2017

SUMMARY POINTS

- An increase in Legionnaires' disease among residents of the Torresdale neighborhood in Northeast Philadelphia has occurred since mid-August.
- Providers should consider *Legionella* infection when evaluating patients for community-acquired pneumonia.
- Diagnostic testing for *Legionella* infection should include both urine antigen and culture of respiratory specimens.
- Patients with confirmed or suspected *Legionella* infections should be reported to PDPH at 215-685-6740.

The Philadelphia Department of Public Health (PDPH) has identified five laboratory-confirmed cases of Legionnaires' disease among residents of Northeast Philadelphia's Torresdale neighborhood. All have had illness onset since mid-August and have been hospitalized. Among the five confirmed cases, all are 70 years of age or older and four are male. PDPH is investigating possible common sources of infection among these cases. Providers should consider *Legionella* infection when evaluating patients with community-acquired pneumonia or those with febrile respiratory illness, particularly those who have underlying medical conditions, are smokers, or have another predisposing factor. All confirmed and suspected *Legionella* infections should promptly be reported to PDPH at 215-685-6740 during regular business hours or 215-686-4514 after-hours.

Legionnaire's disease, primarily caused by the bacterium *Legionella pneumophila*, is a respiratory illness characterized by fever, cough, shortness of breath, muscle aches, headaches, and pneumonia. Illness typically results in hospitalization and has a 10% fatality rate. Symptoms develop 2–14 days following exposure to an environmental source, primarily through inhalation of contaminated aerosolized water. Common risk factors for illness include age ≥ 50 years, cigarette smoking, underlying lung disease, diabetes, kidney disease, and immune-suppressing conditions. Patients should also be asked about travel in the 14 days prior to symptom onset as an estimated 20% of Legionnaires' disease cases are thought to be associated with recent travel.

Laboratory Diagnosis and Treatment: Diagnostic tests include urine antigen testing (although this test only detects *L. pneumophila* serogroup 1, accounting for 70-80% of infections) and culture of sputum or bronchoalveolar lavage fluid for *Legionella*. Culture is the optimal test and requires special culture media (Buffered Charcoal Yeast Extract medium). Respiratory specimens should be collected prior to antibiotic administration, if possible. PDPH can support providers with submission of clinical specimens for *Legionella* culture, serotyping, and molecular testing (call 215-685-6742). Paired serologic testing is not a recommended diagnostic test. For individuals with compatible illness, empiric treatment with a macrolide or fluoroquinolone is recommended.

