

Health Advisory

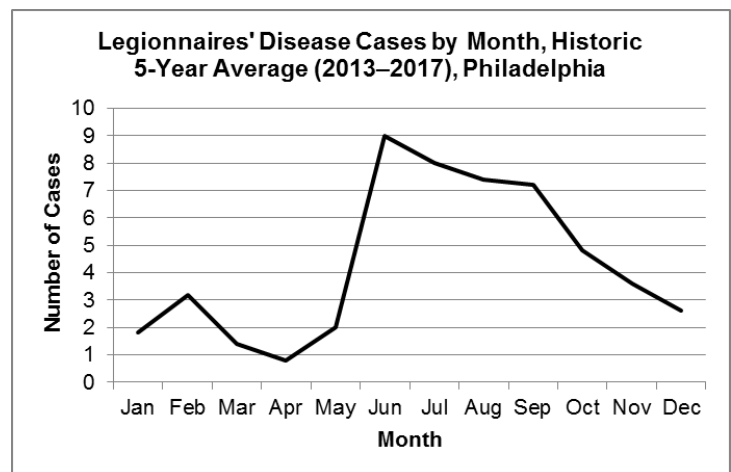
Seasonal Increase in Legionnaires' Disease

July 2, 2018

SUMMARY POINTS

- A seasonal increase in Legionnaires' disease has been observed in Philadelphia.
- Consider *Legionella* infection when evaluating patients for community-acquired pneumonia.
- Test for *Legionella* infection through urine antigen testing and culture of respiratory specimens.
- Report patients with confirmed or suspected *Legionella* infections to PDPH at 215-685-6740.

The Philadelphia Department of Public Health (PDPH) has detected a seasonal increase in Legionnaires' disease in the City of Philadelphia. PDPH generally observes an increase in Legionnaires' disease cases each year during June through October. 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 be promptly reported to PDPH at 215-685-6740 during regular business hours or 215-686-4514 after-hours.



Legionnaires' 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. For facilities that are unable to perform *Legionella* culture in-house, PDPH can support providers with submission of clinical specimens for culture, serotyping, and molecular testing (call 215-685-6742). Specimens to be submitted for culture through PDPH should be frozen at -20°C directly following collection. Paired serologic testing is not a recommended diagnostic test. For individuals with suspected *Legionella*, empiric treatment with a macrolide or fluoroquinolone is recommended.