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NH-HAN 202408121



Legionnaires' Disease Cluster in Lincoln, NH

Key Points and Recommendations:

- The New Hampshire Division of Public Health Services (DPHS) has identified five patients with *Legionella* pneumonia (also known as Legionnaires' disease) who spent time in downtown Lincoln, NH within 14 days before symptom onset.
 - Illness onset occurred in June and July 2024, but additional exposures into August and subsequent infections are possible.
- Investigation and environmental testing identified a cooling tower contaminated with *Legionella pneumophila*, which may be the common source of exposure. This cooling tower is located behind the RiverWalk Resort in downtown Lincoln, NH.
- Additional environmental testing is occurring, but the cooling tower is still in operation while undergoing remediation. Therefore, there may continue to be risk of exposure to the public, especially for people within a half-mile radius of the cooling tower's location (see [press release](#) for risk area).
- Healthcare providers should consider *Legionella* infection when evaluating community-acquired pneumonia and ask patients about travel (including local travel) in the 14 days prior to symptom onset.
- Diagnostic testing for *Legionella* infection should include both urine antigen **and** respiratory specimen culture. The New Hampshire Public Health Laboratories (NH PHL) is available to support testing (see information below).
- Healthcare providers should report suspected and confirmed cases of *Legionella* infection to NH DPHS at 603-271-4496 (after hours 603-271-5300).

Background

Legionella bacteria are aerobic, gram-negative, intracellular pathogens that are commonly found in water and soil. Human infection is typically acquired through inhalation of contaminated water aerosols. Most *Legionella* infections are sporadic; however, outbreaks can occur and are often associated with exposure to contaminated communal water supplies in large facilities and cooling towers.

The two primary clinical syndromes caused by *Legionella pneumophila* are Legionnaires' disease (pneumonia) and Pontiac fever; the latter being an acute, nonspecific, self-limited febrile illness. Legionnaires' disease is a pneumonia characterized by fever, cough, shortness of breath, muscle aches, headaches, and pulmonary infiltrates consistent with pneumonia. Illness typically is severe enough to require hospitalization and has an up to 10% fatality rate.

Symptoms of Legionnaires' disease usually develop 2-14 days following exposure to an environmental source. Because of the self-limited and nonspecific nature of Pontiac fever, the epidemiology and pathogenesis of this disease are not as well characterized.

Legionella species are estimated to cause about 2-10 percent of cases of community-acquired pneumonia, with a majority of cases occurring in adults >50 years old. In addition to older age, risk factors for Legionnaires' disease include smoking, chronic respiratory disease, diabetes mellitus, and other immunocompromising conditions.

Laboratory Diagnosis and Treatment

Diagnostic tests include urine antigen testing (which only detects *L. pneumophila* serogroup 1, accounting for 70-80% of infections) and culture of sputum or bronchoalveolar lavage fluid for *Legionella*. Culture requires special culture media (Buffered Charcoal Yeast Extract medium), which is not always routinely available. Respiratory specimens should be collected prior to antibiotic administration, if possible. The NH Public Health Laboratories (NH PHL) can support providers with *Legionella* culture. Laboratory testing can be arranged by calling the NH DPHS Bureau of Infectious Disease Control at 603-271-4496 (after hours 603-271-5300).

For patients with compatible or confirmed illness, treatment with azithromycin or levofloxacin is recommended.

Additional Resources

CDC Materials for Providers: <https://www.cdc.gov/legionella/hcp/clinical-overview/index.html>

NH DHHS-DPHS

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- For any questions regarding this notification, please call the NH DHHS, DPHS, Bureau of Infectious Disease Control at (603) 271-4496 during business hours (8:00 a.m. – 4:30 p.m.).
- If you are calling after hours or on the weekend, please call the New Hampshire Hospital switchboard at (603) 271-5300 and request the Public Health Professional on-call.
- To change your contact information in the NH Health Alert Network, please send an email to DHHS.Health.Alert@dhhs.nh.gov or visit www.nhhan.org.

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Attachments: None