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NH-HAN 202312291



Legionnaires' Disease Cases Associated with Mountain View Grand Resort in Whitefield, NH

Key Points and Recommendations:

- The New Hampshire Division of Public Health Services (DPHS) has identified two out-of-state residents who were recently diagnosed with Legionnaires' disease after staying at the Mountain View Grand Resort in Whitefield, NH; an investigation is ongoing to assess potential sources of exposure.
- 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 workup for *Legionella* infection should include both urine antigen testing (UAT) and respiratory specimen culture; if a patient is positive by UAT, then a respiratory *Legionella* culture should be obtained as soon as possible.
 - The New Hampshire Public Health Laboratories is available to support testing, if needed (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 such as hospitals, hotels, or apartment buildings.

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 often is severe enough to require hospitalization and has an overall mortality rate of up to 10%. 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 are estimated to cause about 2-10% 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* bacteria. 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 Legionnaires' disease, treatment with azithromycin or levofloxacin is recommended first-line therapy.

Additional Resources

CDC Materials for Providers: <https://www.cdc.gov/legionella/clinicians.html>

NH DHHS-DPHS
NH-HAN #202312291 Legionella in Hampton

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.

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