HAN ADVISORY

Number of pages including cover:  4

Subject: Advisory - Reminder to Clinicians regarding Legionnaires’ Disease and Legionella Testing during COVID-19 Pandemic - September 8, 2020

Message ID:  9/8/2020 12:30:00 PM
Recipients:  HAN Community Members.
From:  TRI-COUNTY HEALTH DEPARTMENT
Adams, Arapahoe and Douglas County, Colorado

Recipient Instructions: Tri-County Health Department is forwarding you the attached HAN. You may have already received this broadcast if you are on the CDPHE distribution list, however, we wanted to ensure you did not miss this important information. No response is required.

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Categories of Health Alert Network Messages:

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Info Service/Public Health Brief: Provides general information that is not necessarily considered to be of an emergent nature.

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HEALTH ADVISORY | Reminder to Clinicians regarding Legionnaires’ Disease and *Legionella* Testing during COVID-19 Pandemic | September 8, 2020
Health care providers: Please distribute widely in your office

Key points

- Signs and symptoms of severe COVID-19 infection and Legionnaires' disease can be similar and include fever, cough, and shortness of breath; pneumonia caused by SARS-CoV-2 or *Legionella* may be indistinguishable radiographically.
- In patients with COVID-19, coinfection with other respiratory pathogens, including *Legionella*, is possible.
- Most Legionnaires’ disease cases in the United States occur in the summer and early fall, but illness can happen any time of year.
- Recent exposure to water in a building that has been unoccupied or operating at reduced occupancy can increase the risk of Legionnaires’ disease because water in the building may become stagnant increasing the risk of Legionella amplification and thus exposure when reoccupied.
- Other risk factors for Legionnaires’ disease include exposures to certain settings (e.g., healthcare facilities, recent travel with an overnight stay outside of the home) and devices (e.g., hot tubs).
- Legionnaires’ disease is treatable with antibiotics (macrolides or fluoroquinolones).
- **Call to action for clinicians:** Consider testing for Legionnaires’ disease if a patient is hospitalized with pneumonia and is negative for COVID-19 (or if a patient is positive for COVID-19 and coinfection with *Legionella* is suspected due to exposure risk).
- Legionellosis cases should be reported within 4 days of diagnosis or a positive laboratory test.
  - Cases should be reported using the Colorado Electronic Disease Reporting System (CEDRS), or fax (303) 782-0338, or to the CDPHE Disease Reporting Line at (303) 692-2700 or (303) 370-9395 (after hours).
Background information

*Legionella* is a type of bacterium found naturally in freshwater environments, like lakes and streams. It can become a health concern when it grows and spreads in human-made building water systems like:

- Showerheads and sink faucets
- Cooling towers (structures that contain water and a fan as part of centralized air cooling systems for building or industrial processes)
- Hot tubs that aren’t drained after each use
- Decorative fountains and water features
- Hot water tanks and heaters
- Large plumbing systems

Home and car air-conditioning units do not use water to cool the air, so they are not a risk for *Legionella* growth.

After *Legionella* grows and multiplies in a building water system, water containing *Legionella* has to spread in droplets small enough for people to breathe in. People can get Legionnaires’ disease or Pontiac fever when they breathe in small droplets of water in the air that contain the bacteria.

The temporary shutdown or reduced operation of a building and reductions in normal water use (such as during the COVID-19 pandemic) presents a risk of exposure to *Legionella* for returning occupants. *Legionella* growth can occur in *weeks* or *months* depending on plumbing-specific factors, disinfectant residuals, water heater temperature set points, water usage patterns, and preexisting *Legionella* colonization.

The number of cases reported to CDC has been on the rise since 2000. Health departments reported nearly 10,000 cases of Legionnaires’ disease in the United States in 2018. However, because Legionnaires’ disease is likely underdiagnosed, this number may underestimate the true incidence. More illness is usually found in the summer and early fall, but it can happen any time of year. It is important to note that about one in 10 people who gets sick from Legionnaires’ disease will die. Because symptoms of Legionnaires’ disease may resemble COVID-19, there is concern that cases may be missed during the pandemic. To date, 43 cases have been reported in Colorado for 2020. In 2019, 76 cases had been reported through September 2.

**Recommendations/Guidance**

Clinicians should consider testing for Legionnaires’ disease if a patient is hospitalized with pneumonia and is negative for COVID-19 (or if a patient is positive for COVID-19 and coinfection with *Legionella* is suspected due to exposure risk). Legionnaires’ disease is treatable with antibiotics (macrolides or fluoroquinolones).

CDC prefers two methods for testing for Legionella: (1) Culture, and (2) Urinary Antigen. Isolation of *Legionella* on media that supports growth of *Legionella* (i.e., Buffered Charcoal Yeast Extract [BCYE] agar) from lower respiratory secretions, lung tissue, pleural fluid, or a normally sterile site is confirmatory and an important method for diagnosis. It can detect *Legionella* species and serogroups that the urinary antigen test does not.
The most commonly used laboratory test for diagnosis of Legionnaires’ disease is the urinary antigen test, which detects a molecule of the *Legionella* bacterium in urine. If the patient has pneumonia and the test is positive, clinicians should consider the patient to have Legionnaires’ disease. The test can remain positive for a few weeks after infection, even with antibiotic treatment. The urinary antigen test detects the most common cause of Legionnaires’ disease, *L. pneumophila* serogroup 1. However, all species and serogroups of *Legionella* are potentially pathogenic, so a patient with a negative urinary antigen result could have Legionnaires’ disease caused by other *Legionella* species or serogroups.

**More information**

- CDC: Guidance for Reopening Buildings after Prolonged Shutdown or Reduced Operation.  
- CDC: Legionnaires’ Disease Clinician Testing Guidance.  
  [https://www.cdc.gov/legionella/clinicians/diagnostic-testing.html](https://www.cdc.gov/legionella/clinicians/diagnostic-testing.html)
  [https://drive.google.com/file/d/0B0tmPQ67k3NVYtV4cXNBeFptYUk/view](https://drive.google.com/file/d/0B0tmPQ67k3NVYtV4cXNBeFptYUk/view)
- CDC: About *Legionella*  
  [https://www.cdc.gov/legionella/about/index.html](https://www.cdc.gov/legionella/about/index.html)
- For additional questions, please contact Allison Wheeler at allison.wheeler@state.co.us.

**CDPHE Disease Reporting Line:** 303-692-2700 or 303-370-9395 (after hours)