Public Health Information Bulletin

Legionnaires’ Disease Cases with Potential Exposure at SpringHill Suites Round Rock

October 4, 2017

The Williamson County and Cities Health District (WCCHD) has received reports of four confirmed cases of a respiratory illness known as Legionnaires’ Disease. All cases independently reported spending time at the SpringHill Suites Round Rock location, between the dates of June 25, 2017 and October 2, 2017. Legionnaires’ Disease is a form of pneumonia, an infection of the lungs. It is caused by a bacterium called Legionella pneumophila, and primarily affects people over the age of 50, especially persons who have one or more other illnesses, or who have weakened immune systems. Symptoms of this illness are similar to the flu, and include: Cough, loss of appetite, body aches, headache, and fever. Legionnaires’ Disease is not spread from person to person, so an infected person does not pose a danger to others. This type of pneumonia is generally caused by breathing water droplets contaminated with the germ, and can be related to hot water systems or other water systems in a building. Exposure can occur, for example, while showering, bathing in a jacuzzi or hot tub, or while washing hands in a sink.

The WCCHD is working closely with the management team at SpringHill Suites to ensure the safety of all guests, employees, and visitors. Testing will be performed to determine if all water systems are safe.

If you spent time at this SpringHill Suites location from June 25, 2017 to present, and believe you have symptoms of Legionnaires’ Disease, please visit your medical provider and contact the Williamson County and Cities Health District at (512) 943-3660.

If you are not sick, but would simply like additional information, please contact the Williamson County and Cities Health District at (512) 248-7629
What Clinicians Need to Know about

LEGIONNAIRES’ DISEASE

Legionnaires’ disease is a sometimes fatal form of pneumonia that is on the rise in the United States. Unfortunately, this disease is also underrecognized and underdiagnosed. Clinicians are in a unique position to make sure cases are detected, allowing rapid investigation by public health officials and prevention of additional cases.

Diagnosis and Testing

Clinical features of Legionnaires’ disease include cough, fever, and radiographic pneumonia. Signs and symptoms for Legionnaires’ disease are similar to pneumonia caused by other pathogens; the only way to tell if a pneumonia patient has Legionnaires’ disease is by getting a specific diagnostic test. Indications that warrant testing include:

- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia
- Patients with severe pneumonia, in particular those requiring intensive care
- Immunocompromised patients with pneumonia*
- Patients with a travel history (patients who have traveled away from their home within 10 days before the onset of illness)
- All patients with pneumonia in the setting of a Legionnaires’ disease outbreak
- Patients at risk for Legionnaires’ disease with healthcare-associated pneumonia (pneumonia with onset ≥48 hours after admission)

* Clinicians may also consider testing for Legionnaires’ disease in patients with other risk factors for this infection (see page 2).

Testing for healthcare-associated Legionnaires’ disease is especially important if any of the following are identified in your facility:

- Other patients with healthcare-associated Legionnaires’ disease diagnosed in the past 12 months
- Positive environmental tests for Legionella in the past 2 months
- Current changes in water quality that may lead to Legionella growth (such as low chlorine levels)

Infection control staff may have more information about these situations in your facility.

The preferred diagnostic tests for Legionnaires’ disease are culture of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on selective media and the Legionella urinary antigen test. Serological assays can be nonspecific and are not recommended in most situations. Best practice is to obtain both sputum culture and a urinary antigen test concurrently. Sputum should ideally be obtained prior to antibiotic administration, but antibiotic treatment should not be delayed to facilitate this process. The urinary antigen test can detect Legionella infections in some cases for days to weeks after treatment. The urinary antigen test detects Legionella pneumophila serogroup 1, the most common cause of Legionnaires’ disease; isolation of Legionella by culture is important for detection of other species and serogroups and for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.

In the United States, reported cases of Legionnaires’ disease have grown by nearly four and a half times since 2000. More than 6,000 cases of Legionnaires’ disease were reported in 2015, but this number is likely an underestimate as the illness is thought to be underdiagnosed.

More illness occurs in the summer and early fall, but Legionnaires’ disease can happen any time of year.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
**Treatment**
If your patient has Legionnaires’ disease, see the most recent guidelines for treatment of community-acquired pneumonia (http://bit.ly/CommunityPneumonia) and hospital-acquired pneumonia (http://bit.ly/HospitalPneumonia). Macrolides and respiratory fluoroquinolones are currently the preferred agents for treating Legionnaires’ disease.

**Reporting**
Make sure your infection control department or lab are promptly reporting cases of Legionnaires’ disease to your local health department. Timely identification and reporting of cases is important, as this allows public health officials to quickly identify and stop potential clusters and outbreaks by linking new cases to previously reported ones.

**Etiology**
Legionnaires’ disease is a severe form of pneumonia that often requires hospitalization and is fatal in about 10% of cases overall, and in 25% of healthcare-associated cases. Legionnaires’ disease is caused by *Legionella* bacteria. There are at least 60 different species of *Legionella*, and most are considered capable of causing disease. However, most disease is caused by *L. pneumophila*, particularly serogroup 1.

**Transmission**
While *Legionella* is found in natural, freshwater environments, it can become a health concern in human-made water systems (e.g., plumbing system of large buildings, cooling towers, certain medical devices, decorative fountains, hot tubs) where conditions allow it to multiply and come in contact with vulnerable persons. People contract *Legionella* by inhaling aerosolized water droplets containing the bacteria, or, less commonly, by aspiration of contaminated drinking water. *Legionella* is usually not transmitted from person to person; however, a single episode of person-to-person transmission has been reported. Fortunately, most people exposed to the bacteria do not become ill.

**Risk Factors**
Risk factors for developing Legionnaires’ disease include:
- Age ≥50 years
- Smoking (current or historical)
- Chronic lung disease, such as emphysema or COPD
- Immune system disorders due to disease or medication
- Systemic malignancy
- Underlying illness, such as diabetes, renal failure, or hepatic failure

**Prevention**
The key to preventing Legionnaires’ disease is maintenance of the water systems in which *Legionella* may grow. If *Legionella* is found in a healthcare facility’s water system, the facility should work to eliminate the bacteria. CDC encourages all building owners, and especially those in healthcare facilities, to develop comprehensive water management programs to reduce the risk of *Legionella* growth and spread. Learn more about how to develop a water management program at www.cdc.gov/legionella/WMPtoolkit.