Investigation of a Legionellosis Cluster in Richland County

Summary
The South Carolina Department of Health and Environmental Control (DHEC) has recently identified cases of Legionnaires’ disease and individuals with clinically compatible illness who work at a manufacturing facility located in Richland County, SC. DHEC is working alongside the facility management to notify its employees and implement appropriate mitigation measures. To help identify additional cases, recommendations are being provided regarding testing of individuals with community-acquired pneumonia or other severe respiratory illness.

Background
Legionella bacteria can cause two distinct types of illness: Legionnaires’ disease, a serious form of pneumonia, and Pontiac Fever, a milder, self-limiting illness without pneumonia. Legionella is naturally found in freshwater environments, such as lakes and streams. However, these bacteria can become a health concern when they grow and spread in man-made systems that aerosolize water, such as jet sprayers, cooling towers, or other sources of water mists. These water systems are a common source of Legionella as they maintain temperatures within a favorable range for Legionella growth, create aerosols, and can advance the decay of residual disinfectants. Individuals may be exposed to Legionella when aerosolized water containing the bacteria is inhaled. Proper maintenance of these water systems is essential in preventing potential exposure.

Testing for Legionella infection in patients assists in guiding clinical treatment along with the detection and characterization of outbreaks. The clinical features of Legionnaires’ disease include fever, cough, and clinical or radiographic pneumonia, while Pontiac Fever is often characterized by milder symptoms including fever, chills, and myalgia. The symptoms of Legionnaires’ disease and Pontiac Fever are similar to illnesses and pneumonia caused by other pathogens; therefore, consider diagnostic testing for other common respiratory illnesses including influenza and COVID-19. Legionnaires’ disease and Pontiac Fever can only be diagnosed by using a specific diagnostic test that is able to detect Legionella bacteria. Optimal diagnostic testing for Legionella includes cultures of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on selective media and the Legionella urinary antigen test. As a best practice, national recommendations include concurrently obtaining sputum for culture and urine for the urinary antigen test. Individuals determined to have Legionnaires’ disease require treatment with antibiotics.
More information regarding the diagnosis and testing for Legionnaires’ disease can be found at: www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf.

Recommendations for Providers

- In any patient who develops illness with pneumonia consider Legionnaires’ disease and collect a history of possible exposures to aerosolized water, such as jet sprayers, cooling towers, hot tubs, showers, decorative fountains, or other sources of water mists where they live, work, or have visited.

- Consider diagnostic testing for other common respiratory illnesses including influenza and COVID-19.

- Obtain urine antigen testing for Legionella in all cases of community-acquired pneumonia, healthcare-associated pneumonia, or other severe lower respiratory disease without clear etiology.

- Obtain lower respiratory specimens (e.g., sputum, bronchoalveolar lavage) for culture on selective media prior to starting antibiotics.

- Report positive cases to DHEC as soon as possible, but no later than 3 days, after identification by contacting the Regional Public Health Office where the patient resides (see contact information for the Regional Public Health Offices below).
DHEC contact information for reportable diseases and reporting requirements

Reporting of *Legionellosis* is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2022 List of Reportable Conditions available at: https://www.scdhec.gov/sites/default/files/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

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**Regional Public Health Offices – 2022**

Mail or call reports to the Epidemiology Office in each Public Health Region

**MAIL TO:**

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<tr>
<th>Lowcountry</th>
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| 4050 Bridge View Drive, Suite 600  
N. Charleston, SC 29405  
Fax: (843) 953-0051 | 2000 Hampton Street  
Columbia, SC 29204  
Fax: (803) 576-2993 | 1931 Industrial Park Road  
Conway, SC 29526  
Fax: (843) 915-6506 | 352 Halton Road  
Greenville, SC 29607  
Fax: (864) 282-4373 |

**CALL TO:**

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| Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg  
Office: (843) 441-1091  
Nights/Weekends: (843) 441-1091 | Aiken, Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexington, Newberry, Richland, Saluda, York  
Office: (888) 801-1046  
Nights/Weekends: (888) 801-1046 | Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg  
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Office: (864) 372-3133  
Nights/Weekends: (864) 423-6648 |

For information on reportable conditions, see https://www.scdhec.gov/ReportableConditions

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Categories of Health Alert messages:

- **Health Alert** Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory** Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update** Provides updated information regarding an incident or situation; unlikely to require immediate action.
- **Info Service** Provides general information that is not necessarily considered to be of an emergent nature.