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PUBLIC HEALTH ADVISORY

To: Health Care Providers
From: Dr. Siiri Bennett, State Epidemiologist
Subject: Increase in Legionellosis Cases - Greater Bangor Area, Penobscot County, Maine 2019
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Abstract:

In the greater Bangor area, Penobscot County, Maine, physicians have reported 6 confirmed cases of legionellosis from November 2018 to the present. This is an increase from the 5-year median of 3.2 cases for Penobscot County. Cases range in age from over 50 to under 85 years old. Maine CDC is actively investigating the cases and has not identified a common exposure among cases.

Health care providers should be aware of this increase in legionellosis cases and consider legionellosis in the differential diagnosis of any pneumonia case. Although urinary antigen assay is an adequate diagnostic test for *Legionella*, given the recent increase in number of cases, Maine CDC recommends respiratory specimen culture, particularly for patients who live in the greater Bangor area. Culture specimens can detect all species and serogroups of *Legionella* and may aide in exposure identification. Maine CDC requests *Legionella* isolates grown from respiratory specimens be sent to the Maine Health and Environmental Testing Laboratory (HETL) for further analysis.

Increase in Legionellosis Cases – Greater Bangor Area, Penobscot County, Maine, July 2019

Summary:

In the greater Bangor area, Penobscot County, Maine, physicians have reported 6 confirmed cases of legionellosis from November 2018 to the present. This is an increase from the 5-year median of 3.2 cases for Penobscot County. Cases range in age from over 50 to under 85 years old. Maine CDC is actively investigating the cases and has not identified a common exposure among cases.

Background:

Legionellosis is an infectious disease caused by a gram-negative bacillus of the genus *Legionella*, of which there are at least 60 species. Though most species are considered pathogenic, most disease is caused by *Legionella pneumophila*. Legionnaires' disease is the acute pneumonic form of the disease. Pontiac fever is a non-pneumonic form of legionellosis that is less severe than Legionnaires' disease.

Legionellosis is acquired by inhalation of an infectious dose of aerosolized *Legionella*, usually from contaminated water sources such as cooling towers, whirlpool spas, showers, and faucets. *Legionella* is ubiquitous in natural, freshwater environments, but generally is not present in sufficient numbers to cause disease. Legionellosis is not transmitted from person-to-person.

Symptoms of legionellosis are similar to other forms of pneumonia and may occur 2-14 days after exposure. High fever, chills, cough, chest pain and muscle aches are common symptoms. Legionellosis is diagnosed through laboratory tests, most commonly the urine antigen test or culture of respiratory specimens (sputum or bronchoalveolar lavage). Hospitalization is common, and the fatality rate is 5-30%.

Recommendations:

Health care providers should be aware of this increase in legionellosis cases and consider legionellosis in the differential diagnosis of any pneumonia case. Although urinary antigen assay is an adequate diagnostic test for *Legionella*, given the recent increase in number of cases, Maine CDC recommends respiratory specimen culture, particularly for patients who live in the greater Bangor area. Culture specimens can detect all species and serogroups of *Legionella* and may aide in exposure identification. Maine CDC requests *Legionella* isolates grown from respiratory specimens be sent to the Maine Health and Environmental Testing Laboratory (HETL) for further analysis.

Epidemiologic risk factors for legionellosis include:

- Recent travel with an overnight stay outside the home
- Exposure to whirlpool spas
- Recent repairs or maintenance work on domestic plumbing
- Renal or hepatic failure
- Diabetes
- Systemic malignancy
- Smoking
- Immune system disorders

Reporting requirements

- Legionellosis is a notifiable disease in Maine. All suspect cases of legionellosis should be reported by phone to 1-800-821-5821 or by fax to 1-800-293-7534.

For more information:

- Maine CDC's webpage: <https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/legionellosis.shtml>
- Federal CDC's webpage: <https://www.cdc.gov/legionella/index.html>