



Health Advisory

Please deliver a copy of the accompanying alert to each provider in your organization. Thank you

Questions regarding this alert may be directed to the office of:

Alan Melnick, MD, MPH
Health Officer

Clark County Public Health

(360) 397-8412

Please Distribute

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for specific incident for situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; no immediate action necessary.



Public Health
Prevent. Promote. Protect.

HEALTH ADVISORY

September 19, 2014

TO: Physicians and other Healthcare Providers

FROM: Alan Melnick, MD, MPH, CPH, Health Officer

RE: Suspect case of Legionellosis

Clark County Public Health is investigating a suspected case of Legionellosis. Please consider Legionellosis when evaluating patients presenting with unexplained pneumonia. Ask about potential exposures in the 2–10 days prior to onset, including:

- Time spent in a hospital as an inpatient, outpatient or employee
- Exposure to aerosolized water (e.g., fountain, whirlpool spa, hot tub, humidifier, evaporative condenser, nebulizer, grocery store misting machine)
- Travel
- Spending as least one night away from the home
- Exposure to soil

Description of illness

Legionellosis is usually associated with two clinically and epidemiologically distinct syndromes: Legionnaires' disease, a potentially fatal form of pneumonia, and Pontiac fever, a self-limited "flu-like" illness without pneumonia. Persons with Legionnaires' disease may present early in the illness with nonspecific symptoms including fever, malaise, myalgia, anorexia, and headache. Cough may be only slightly productive, and chest pain, occasionally pleuritic, can be prominent. Gastrointestinal symptoms, especially diarrhea, occur in 20–40% percent of cases. Chest x-rays almost always show pneumonia. Case fatality rate is up to 30%. Pontiac fever is a milder, self-limited illness. Persons at increased risk for legionellosis include persons over 50 years of age and those with certain medical conditions such as COPD, diabetes, and immunosuppression. During recent years in Washington State, 15–45 cases have been reported annually, usually at least one fatal.

Reservoirs

Water is the primary reservoir. *Legionella* can survive for extended periods in tap water. A variety of natural and man-made aqueous sources have been implicated in outbreaks, including warm, stagnant water such as that found in, or aerosolized from sources such as: plumbing systems, hot water tanks, shower heads and faucets, cooling towers, evaporative condensers of large air-conditioning systems, whirlpool spas, respiratory therapy equipment, ultrasonic misters, humidifiers, grocery vegetable misting machine, and decorative fountains including water walls. Attack rates are low for Legionnaires'.

Potting soil has been associated with *L. longbeachae* infections, a serogroup uncommon in the United States.

Modes of transmission

Legionellosis is generally acquired by inhalation of contaminated aerosols, but can also be acquired through microaspiration of contaminated water. City-wide outbreaks have occurred in Milwaukee (MMWR 2014;62(03);63 and Quebec City. In addition, legionellosis may also be transmitted through contaminated soil (MMWR 2000;49(34):777–9). Person-to-person transmission has not been documented.

Incubation period

For Legionnaires' disease, 2–10 days (average 5–6 days); for Pontiac fever, 5–66 hours (average 24–48 hours).

Period of communicability

Person to person transmission has not been documented.

Treatment

Legionnaires' disease should be treated promptly with appropriate antibiotics. Delay in treatment is associated with increased mortality rates. Pontiac fever requires no specific treatment.

Testing

Urinary antigen assay **and** culture of respiratory secretions on selective media are the preferred diagnostic tests for Legionnaires' disease.

- Urine antigen tests: Rapid immunoassays are available commercially to detect *Legionella* antigens in urine. The test has good sensitivity (70–80%) for detecting *Legionella pneumophila* serogroup 1 antigen (80% of cases) but poor sensitivity (5%) for detecting other *L. pneumophila* serogroups and other species.
- Culture: *Legionella* bacteria can be isolated from lower respiratory tract secretions, lung tissue, and pleural fluid by using special media. The sensitivity of culture is highly variable depending on the severity of illness and the experience of the laboratorian performing the test. The advantage of culture is that it will detect all species and allow for comparison with environmental samples, if available.
- Serologic tests: Demonstrating a four-fold rise in antibodies to *L. pneumophila* serogroup 1 can confirm the diagnosis but is more useful for epidemiologic investigations than for clinical use. An acute serum specimen should be collected when the diagnosis is suspected (during the acute phase of illness) and the convalescent serum specimen should be collected at 4, 6 and 12 weeks after onset.

Reporting

Legionellosis is a reportable condition in Washington. Health care providers should notify local health jurisdiction within 24 hours.

- Clark County Public Health: (360) 397-8182.
- Cowlitz County Health Department: (360) 414-5599
- Skamania County Community Health: (509) 427-3850
- Wahkiakum County Health and Human Services: (360) 795-6207

For more information, see <http://www.doh.wa.gov/Portals/1/Documents/5100/420-058-Guideline-Legionellosis.pdf> or <http://www.cdc.gov/legionella/index.html>. Thank you for your partnership.