



COUNTY OF SAN LUIS OBISPO HEALTH AGENCY
PUBLIC HEALTH DEPARTMENT

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PROVIDER HEALTH ADVISORY

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Increase in Legionnaires' Disease in San Luis Obispo

Summary

The County of San Luis Obispo Public Health Department has recently identified four cases of Legionnaires' disease among residents of the city of San Luis Obispo. Known illness onset dates range from October 13 to November 8, 2021. The Public Health Department is investigating these cases; a common exposure has not been identified.

Providers Should

- Consider Legionnaires' disease in any patient with compatible symptoms, especially if in a high-risk category (see below).
- In addition to urinary antigen testing, order lower respiratory cultures on Buffered Charcoal Yeast Extract (BCYE agar) in patients with suspected Legionnaires' disease.
- Report any suspect or confirmed case of Legionnaires' disease immediately to the County of San Luis Obispo Public Health Department: call 805-781-5500 during business hours or 805-781-4553 after hours to speak to the Health Officer on call.

Background

Legionnaire's disease is a respiratory infection caused by *Legionella* spp. that usually results from inhalation of aerosolized water containing the bacteria. Legionnaires' disease presents as progressive pneumonia with a 2-14 day incubation period. The disease can also cause cardiac, renal and gastrointestinal involvement. *Legionella pneumophila* is the most commonly identified cause of infection in the U.S., and the majority of *L. pneumophila* infections are caused by serogroup 1. The number of reported *Legionella* infections has generally increased in California and nationwide in recent years, but the reason(s) for these increases is unclear. An average of three or fewer cases are typically reported per year among San Luis Obispo County residents.

Patients at increased risk of Legionnaires' disease include those who are:

- Aged 50 years or older;
- Current and former smokers;
- Immunocompromised;
- People with chronic heart, lung, or renal disease, or diabetes

Diagnosis

Legionnaires' disease can be diagnosed by testing for *Legionella* antigen in the urine of infected patients and most cases are diagnosed using this method. However, urine antigen testing only

Public Health Department

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identifies *L. pneumophila* serogroup 1. All *Legionella* species can be identified by nucleic acid amplification testing (e.g., PCR) or culture of lower respiratory specimens (e.g., sputum or bronchoalveolar lavage specimens), but culture is less sensitive in patients who have already begun antibiotic therapy. Cultured specimens are also important as they can be compared to environmental isolates to potentially link patients to exposure sources or provide valuable insights to assist with outbreak investigations.

Environmental Sources of Legionella

Legionella species are naturally occurring, ubiquitous aquatic organisms. Hot tubs are a common source of *Legionella*; proper hot tub maintenance is vital in preventing potential exposure. Other common sources include household showers, decorative fountains and cooling towers (parts of centralized air-conditioning systems for large buildings). Healthcare-associated legionellosis cases can occur and are often related to contamination of the facility's potable water.

Additional Information

For additional information on diagnosis, treatment, or prevention of legionellosis:

<https://www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf>

[https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Legionellosis\(Legionella\).aspx](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Legionellosis(Legionella).aspx)