



San Mateo County Health System

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PUBLIC HEALTH ALERT– September 3, 2015

LEGIONELLOSIS (LEGIONNAIRES' DISEASE)

Situation

As of 9:00 am, September 1, 2015, there have been six confirmed cases of legionellosis in inmates of the San Quentin State Prison community. There have been another 70 individuals who have presented with compatible symptoms and are being evaluated and treated empirically. To date there have been no confirmed cases in guards, staff, family members living on prison grounds or visitors. The source of the infection within the facility has not yet been determined and suspect cases are located throughout the facility, so all groups mentioned above may have been at risk. Measures have been taken to mitigate any additional exposure.

Actions requested of clinicians:

The purpose of this communication is to encourage providers to consider legionellosis when seeing patients with compatible symptoms, especially those who have worked in or visited San Quentin prison in the month of August. Persons at increased risk for legionellosis include persons over 50 years of age and those with certain medical conditions such as COPD, diabetes, or other immunosuppressant illnesses. Prompt initiation of antibiotic therapy in patients with legionellosis reduces mortality risk. Clinicians are also requested to report any suspect or confirmed cases of legionellosis to the San Mateo County Communicable Disease Control program. Please call 650-573-2346 from 8:00 am to 5:00 pm, Monday through Friday and call 650-363-4981 after hours and on holidays.

Clinical Presentation

Legionellosis is an acute bacterial disease frequently presenting with pneumonia as well as anorexia, malaise, myalgia, headache and fever. Abdominal pain, nausea, and diarrhea are also common. Radiographic evidence of pneumonia is often present. Incubation period is two to ten days.

Transmission

Legionella is not transmitted person to person. Legionnaires' is caused by *Legionella pneumophila* which is a water-borne bacteria transmitted by aerosolized contaminated water particles, most often from shower, air conditioning cooling towers, evaporative condensers, humidifiers, whirlpool spas, hot tubs and decorative fountains. Warm water temperatures (25 to 45 degrees Centigrade) with stagnation are conducive to legionella growth.

Infection Prevention and Control

Legionella is not transmitted person to person but standard precautions for persons with gastro-intestinal and respiratory illness should be implemented.

Laboratory 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 80% sensitivity for detecting *Legionella pneumophila* serogroup 1 antigen (80% of cases) but 5% sensitivity for detecting other *L. pneumophila* serogroups.

- Culture: Legionella bacteria can be isolated from lower respiratory tract secretions, lung tissue, and pleural fluid by using special media. Culture enables identification of all serogroups and allows for comparison with environmental samples, if available.
- Serologic tests: This has limited clinical value in diagnosis of acute disease.

Treatment

Legionnaires' disease should be treated promptly with appropriate antibiotics. Recommended antibiotics include a respiratory fluoroquinolone such as levofloxacin or a macrolide (azithromycin). Delay in treatment is associated with increased mortality rates.

Reporting

Please report suspect legionella cases immediately to the San Mateo County Communicable Disease Control program. Please call 650-573-2346 from 8:00 am to 5:00 pm, Monday through Friday and call 650-363-4981 after hours and on holidays.

Additional Information

- <http://www.cdc.gov/legionella/about/>
- <https://www.cdph.ca.gov/HealthInfo/discond/Documents/LegionellaFactSheet.pdf>