

# 4th patient infected with Legionella bacteria in growing outbreak at UW Medical Center

University of Washington Medical Center officials are screening those at high risk for the deadly outbreak.

A fourth patient at University of Washington Medical Center has been infected with the bacteria that cause Legionnaires' disease and hospital officials are screening those at high risk from the deadly outbreak.

In a memo to staff Friday, UW Medicine officials said the latest infected patient was hospitalized in Cascade Tower before water restrictions were put in place Tuesday.

"The patient is now situated on a floor in the Montlake Tower and is in satisfactory condition," said the memo from Dr. Thomas Staiger, medical director, and Dr. Estella Whimbey, medical director for infection control.

The patient is a man in his 40s from outside Washington state, said officials with Public Health – Seattle & King County.

Legionella bacteria were found in [an ice machine](#), a sink and three pieces of

operating-room equipment during an investigation prompted by infections in three other patients in the past month, including two who died.

High-risk patients who were hospitalized between Aug. 24 and Sept. 13 in Cascade Tower are being contacted to watch for symptoms of Legionnaires' disease, a serious type of pneumonia. Some of those patients are being given antibiotics to prevent infection, officials said.

So far, the investigation has found the bacteria in an ice machine and a sink in the Cascade Tower operating-room hallway and in three pieces of equipment that don't come into direct contact with patients.

The ice machine, sink and equipment have been taken out of service. Earlier this week, signs warning patients not to use drinking fountains and sinks were posted throughout the tower. Coffee stands and other vending areas were shuttered.

Bottled water is being used in Cascade Tower. Hospital officials said they plan to start

## Worried about Legionnaires' disease?

UW Medical Center officials have set up a Legionella pneumonia information line at 855- 520-2252. It includes general information, options for more details and for health-care providers. Patients, family members and members of the public can call, too.

*UW Medicine*

treating the water-supply system with a circulating chlorine solution early next week.

“We will continue to test the water until it is negative for Legionella,” the memo said.

Results from tests to determine the level of bacteria in the system won’t be available for several days.

The tower is served by one of five separate water feeds from the city of Seattle. Water in one system doesn’t mix with the others, officials said. The outbreak appears limited to that area of the hospital.

There are about 1,100 water fixtures, including faucets and showers in the tower and an ice machine on each of the tower’s eight floors, plus others in various locations, officials said.

The ice machines, which have been linked to past outbreaks of Legionnaires’ disease in other hospitals, are being cleaned. Tina Mankowski, a hospital spokeswoman, said the machines are serviced at six-month intervals, according to manufacturers’ directions.

Washington state Department of Health officials sent investigators to the hospital Friday morning, a spokesman said. The federal Centers for Disease Control and Prevention (CDC) is monitoring the incident.

The action follows recent reports of three previous cases of Legionella infection in patients treated in the UW Medicine cardiac-care units: a 30-year-old woman reported on Aug. 26 and a 50-year-old man reported Sept. 6, health officials have said.

The man died Sept. 8. A woman in her 50s who died Aug. 27 had a Legionella infection detected during an autopsy. The Legionella bacteria may have contributed to both deaths, health officials said.

The patients were infected with Legionella pneumophila, one of about 60 different species of the bacteria.

Legionnaires’ outbreaks are difficult to diagnose and control, said Dr. Joseph Cervia, regional medical director for Northwell Health in New York, and an expert on the disease.

“Probably many more are infected than are actually diagnosed,” he said. “Then there are a few, because they’re so sick at the time, it puts them at high risk.”

Despite reports of Legionella infections linked to ice machines in hospitals, including cases in 2014 at [UPMC Presbyterian in Pittsburgh](#), guidance is scant, Cervia said. Advice

from the CDC dates to 2003.

“It’s fairly incredible, but there haven’t been updated guidelines on the control of Legionella in health-care facilities for some time,” Cervia said.

Infection typically occurs when people breathe in mist or vapor contaminated with the bacteria. Legionnaires’ disease causes cough, shortness of breath, fever, muscle aches and headaches. Healthy people may be exposed to the bacteria, but not get sick. Infections are more likely in people older than 50, former or current smokers and those with weakened immune systems.

Legionella bacteria are found in nature, usually in places like freshwater lakes and streams. But they can grow within man-made water systems, including air-conditioning units, plumbing systems and hot-water tanks and heaters. Infections are more common in warm months, when bacteria flourish.

Legionnaires’ disease is reported in about 5,000 people a year in the U.S. Washington state saw 63 cases, including eight deaths, in 2014, the highest count on record, according to the state health department.

The disease was first identified after an outbreak in 1976 sickened many people attending an American Legion meeting in Philadelphia.