



## Frequently Asked Questions Sheet on *Legionella* and *Legionella* pneumonia

### *Leading in a new era of Legionella control*

#### **What are you doing now to prevent *Legionella* from growing in the water?**

To prevent *Legionella* growth, we are treating the water systems at both campuses with continuous chlorine drips (chlorine, at certain concentrations, can kill the bacteria).

We have also installed specialized mixing valves and instantaneous hot water heaters in our plumbing systems at both campuses. These enhancements enable us to safely keep the water in our pipes circulating at a warmer temperature—140 degrees Fahrenheit—to suppress the growth of *Legionella*. In addition, we can now superheat this water to quickly kill bacteria as necessary while maintaining cooler, safe temperatures at the tap to prevent scalding users.

#### **What changes have you made to ensure that this does not happen again?**

We have created an aggressive and comprehensive surveillance program. We now test our water system for *Legionella* on a monthly basis and have developed a guide for adjusting sampling frequency as needed.

In addition, we are closely examining our patients for *Legionella* pneumonia. In 2013, we performed more than 2,000 *Legionella* urinary antigen tests and more than 2,000 *Legionella* respiratory cultures, which means that we are now actively looking for *Legionella* pneumonia in our patients more than many other medical facilities in America.

In 2013, we also completed a Hazard Analysis and Critical Control Point (HACCP) plan, which stands at 89 pages long and defines nine critical control points in maintaining our water systems. For each of these points, the HACCP identifies critical limits, monitoring methods and frequencies, and corrective actions to perform if a critical limit is violated.

Beyond suppressing *Legionella* growth by infusing our water systems with chlorine and permanently elevating our circulating water temperatures, we are also working to create a detailed record of our above-ground plumbing systems. Once complete, this mapping work will help streamline our plumbing systems and make them more efficient.

#### **Why is VA Pittsburgh the only medical facility with *Legionella* in its water?**

The short answer is that we are not. This issue may seem specific to VA Pittsburgh, but medical facilities across the country are currently monitoring, finding and treating *Legionella* in their water systems. Since January 2013, several medical facilities have sought our guidance in addressing health care-associated *Legionella* infections.

### *A steadfast focus on safety*

#### **If you are adding chlorine to the water, is it still safe to drink?**

Absolutely. We are monitoring chlorine concentrations on a daily basis. The Environmental Protection Agency, which regulates drinking water, has established that chlorine concentrations in drinking water cannot exceed 4ppm (nearly all municipal water is chlorinated). By comparison, the chlorine concentrations in our system are measuring at about 2ppm. This amount of chlorine is perfectly safe to drink—and it does not impact how the water tastes—yet it inhibits *Legionella* growth in our water systems.

#### **If the water is safe to drink, why did you remove all of the water fountains?**

Our original drinking fountains were difficult to clean (even if the water flowing from them was safe to drink). As a result, we proactively replaced these machines with bubbler systems that are easier to maintain.

## A commitment to open communication

### I have additional questions about this issue. Who can answer them?

Please do not hesitate to discuss this matter with your VA provider. In addition, you can call our water hotline at **412-360-1199**. We established this hotline to help answer any questions that you may have about our ongoing water system enhancements, and this number is open to the greater VA Pittsburgh community. We staff this hotline from 8 a.m. to 8 p.m every weekday. During off-hours and holidays, you can still call in and ask questions via voicemail, and we will return your call on our next business day.

## About Legionella and Legionella pneumonia

### What is Legionella?

*Legionella* is a bacterium found naturally in the environment. Scientists have identified more than 34 species of *Legionella*; 20 of which are linked to human diseases. *Legionella pneumophila* is the primary human pathogenic bacterium in this group and the cause of *Legionella pneumonia*.

### Why is it in your water?

Almost all natural water sources have *Legionella*, and it grows best in warm stagnant water.

### How common is Legionella pneumonia?

Up to 18,000 hospitalized cases occur in the United States each year. However, many cases do go unreported because this disease is difficult to distinguish from other forms of pneumonia.

### How does Legionella lead to Legionella pneumonia?

Most healthy individuals do not become infected after exposure to *Legionella*, and *Legionella pneumonia* is not transmitted from person to person. Some people can fall ill after breathing in the bacteria. Those at higher risk of getting sick are:

- Older people (50 years or older)
- Current or former smokers
- Someone with chronic lung disease (such as COPD or emphysema)
- Someone with a weak immune system
- Someone who take drugs that suppress their immune system

### Can I get Legionella pneumonia from drinking your tap water?

Generally speaking, a person cannot get *Legionella pneumonia* just by drinking water. To be infected, they must breathe in mist or vapors containing the bacteria.

### How do you confirm that someone has Legionella pneumonia?

After we diagnose a patient with pneumonia, we conduct a urinary antigen test and collect a sputum sample to check for *Legionella pneumonia*. A urinary antigen test is simple, quick and detects *Legionella pneumonia* in most instances but not all. Whenever possible, we also collect a sputum sample and culture it in on special media in the lab. If a patient has *Legionella pneumonia*, their culture can grow *Legionella* bacteria. This test is slower to produce results, as the culture needs time to grow, but it can help us link a patient's infection to an environmental source of infection.

### How do you treat Legionella pneumonia?

We treat most cases of *Legionella pneumonia* successfully with common antibiotics.

### What are some symptoms of Legionella pneumonia?

Symptoms of *Legionella pneumonia* are similar to symptoms associated with other forms of pneumonia and can include a cough, shortness of breath, high fever, muscle aches and headaches.