



Hospitals at Risk for Waterborne Diseases

Evan Sweeney, for HealthLeaders Media, August 2, 2010

Waterborne pathogens may not be first on your hospital's list of priorities—perhaps because you haven't seen an outbreak—but that doesn't mean it's not a risk in your facility, particularly if you have ornamental water structures.

Hospitals are by far the most at risk for legionella outbreaks of any building, says **Tim Keane**, consultant for Environmental Infection Control Consultants in Chalfont, PA, and author of the [*Guidelines for Control of Legionella in Ornamental Water Features*](#).

“There is no structure built in America—none—that has the risk factors of a hospital building for growing and culturing legionella,” Keane says.

Furthermore, waterborne pathogens can be a significant financial burden on hospitals. Researchers at the [CDC presented a study](#) at the International Conference on Emerging Infectious Diseases, which determined waterborne illnesses—including legionella—cost the healthcare system as much as \$539 million annually.

“These cost data highlight that water-related diseases pose not only a physical burden to the thousands of people sickened by them each year, but also a substantial burden in health care costs, including direct government payments through Medicare & Medicaid,” says Michael Beach of the CDC.

Joint Commission requirements and legal backlash

Under EC.02.05.01, The Joint Commission requires healthcare facilities to manage risks associated with their utility systems, including “engineering controls of waterborne pathogens in potable water, cooling tower systems, and other aerosolized water systems.”

Not only can this affect compliance with Joint Commission accreditation, failure to adhere to these standards can also work against you in the court of law, particularly if an outbreak affects numerous people.

“The environment of care is not a guideline, it's a standard—a standard that carries tremendously much more legal weight than a guideline,” Keane says.

In February 2009 and March 2010, a waterfall-type fountain in the lobby of a Wisconsin hospital caused an outbreak of Legionnaires' disease in eight people.

The state health department released recommendations on decorative waterfalls, but the outbreak remains fresh in the minds of Joint Commission surveyors, says **Peggy Prinz-Luebbert, MS, MT(ASCP), CIC, CHSP**, owner of Healthcare Interventions, Inc., in Omaha,

NE.

“Especially since we’ve had outbreaks now, if [a surveyor] sees a waterfall, they are going to want to see what kind of maintenance you do on it, what kind of testing you do on it, and if you’ve had problems, how you’ve responded to them,” Luebbert says.

Testing potable water

Even if you don’t have water structures in your hospital, you still need to be aware of the risks in your potable water system.

“With potable outbreaks, you don’t get a bunch of people getting sick all at the same time, so if hospitals aren’t testing for legionella—which most of them don’t do—you may not find it because legionella is a type of pneumonia,” Keane says. Hospitals are required to keep their hot water systems at 120°F, he adds, which is a prime temperature for growing legionella.

Additionally, the guidelines for new hospitals create a much higher risk for waterborne illnesses, says Keane, who has been in hospitals with showers in every room, but the showers had never been used. Many of those showers also had shower hoses, which is a huge breeder of bacteria because of stagnant water.

“In new hospitals you have one person in a room, a sink as soon as you walk in the room for the doctor or nurse to wash their hands, and another sink in the bathroom,” Keane says. “And on top of that, you have waterless hand cleaner so nobody uses the sink. New hospitals have four times as many sinks per patient as older hospitals, and they are almost all stagnant because people are using the waterless hand cleaners.”

Evan Sweeney is an editorial assistant at HCPro. He manages and writes for [Briefings on Infection Control](#), a monthly newsletter directed at IC compliance. He also blogs for OSHA Healthcare Advisor, a resource center for infection control and safety professionals, and regularly contributes to [Medical Environment Update](#) and [OSHA Watch](#), which focus on healthcare employee safety and health.

[Back](#)