Legionella in an Ice Machine May Be a Sentinel for Drinking Water Contamination

To the Editor—We congratulate Schuetz et al for their article in *Infection Control and Hospital Epidemiology* about an ice machine contaminated with legionella.1 Their epidemiologic investigation revealed that an outbreak of hospital-acquired legionnaires’ disease was actually a pseudo-outbreak in which syringes of sterile saline used for bronchoscopy were immersed in ice baths. Fortunately, the indication for bronchoscopy was not pneumonia, and thus, the pseudo-outbreak was detectable. If these patients had pneumonia, they might have received an incorrect diagnosis.

We want to point out a facet of the article that was not mentioned by the authors. The fact that the ice machines were colonized by *Legionella pneumophila* may be an important clue that the hospital drinking water was colonized by *L. pneumophila*, simply because the ice machines receive their water from the hospital water distribution system. We have been advocates of the proactive position that knowledge of legionella in a hospital’s drinking water system can be used to prevent hospital-acquired legionnaires’ disease. It is surprising that this position is controversial, because the idea is transparent: if the hospital drinking water contains legionella, especially at a high percentage of drinking water sites, it is plausible that patients may develop hospital-acquired legionnaires’ disease. The importance of drinking water and ice machine contamination is underscored by the fact that the mode of transmission is frequently aspiration; aerosolization has been widely and mistakenly overemphasized.

Numerous well-controlled studies have confirmed that environmental monitoring for legionella can lead to effective preventive measures.2–4 These measures include warning the physicians that cases of hospital-acquired pneumonia may be caused by legionella and, as a last resort, disinfection of the hospital drinking water. This scenario of uncovering colonization after patients acquire legionnaires’ disease has been confirmed so frequently that a substantial number of European countries currently mandate cultures of hospital drinking water as a sentinel for prevention of Legionella infection. In contrast, the Centers for Disease Control and Prevention is a prominent opponent of the policy of routinely culturing the drinking water supply for legionella. The Centers for Disease Control and Prevention recommends that cultures be performed only after 1 or 2 patients have had hospital-acquired legionnaires’ disease confirmed.

Thus, the report of Schuetz et al might be considered as a sentinel for legionella colonization of the drinking water at Emory University Hospital (Atlanta, GA). This information can be applied as a proactive method for prevention. A well-publicized outbreak of several cases of legionnaires’ disease at another Atlanta hospital might have been prevented if cultures for legionella had been routinely performed as a preventive measure. A report about the outbreak at Grady Memorial Hospital (Atlanta, GA) noted that more than $700,000 was spent on consulting fees and measures for disinfection.5 These costs are excessive because disinfection measures were implemented under the pressures of media scrutiny in an outbreak situation. The cost of proactive prevention is a manageable fraction of this figure. In summary, a formal policy of proactive culturing for legionella in hospital drinking water can be an effective and inexpensive approach to prevention of hospital-acquired legionnaires’ disease.

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