

# Nosocomial Legionellosis Traced to a Contaminated Ice Machine

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### CASE PATIENT

A ventilator-dependent 66-year-old male developed nosocomial pneumonia due to *Legionella pneumophila* serogroup 6 after 3 months in an intensive-care unit (ICU). The patient had no intake of potable water except for ice chips from an ice machine in the ICU.

### RESULTS

Cultures revealed *L pneumophila* serogroup 6 in the ice (4.3 colony-forming units/mL) and ice machine cold water (too numerous to count). Cultures from adjacent hot and cold taps, plus taps located near the patient, all were negative; ice machines and cold water on seven other patient units also were negative. Only sterile water had been used for tube feedings, mouth care, suctioning, and ventilator humidification. Hospital hot water previously had been colonized with *L pneumophila* serogroup 6, but all surveillance water cultures had been negative since chlorination of the hot-water system began the previous year; cold-water cultures had never before grown *Legionella*.

The ice machine was disinfected with a 2-hour flush of 2.625% sodium hypochlorite. The supply line to the ice machine was replaced, and the cold-water pipe from the floor below was treated with 83 ppm sodium hypochlorite for 48 hours. All follow-up surveillance cultures of the ice machine remained negative through mid-1996. No additional cases of nosocomial legionellosis occurred.

### CONCLUSIONS

Ice machines may be reservoirs of *L pneumophila* in hospitals. Both ice and water dispensed from these machines may be contaminated, and nosocomial transmission may occur. Successful long-term decontamination and control can be accomplished with shock chlorination (*Infect Control Hosp Epidemiol* 1997;18:637-640). Paul S. Graman, MD; Gail A.

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