

Legionella Prevention

For Facility Maintenance Staff

Prevention of healthcare-associated legionellosis centers on the quality of water, the principal reservoir for *Legionella* bacteria. Long-term care facility water systems, including heated potable water distribution systems and cooling towers, can provide environments for multiplication of *Legionella* bacteria. Factors that enhance colonization and amplification of *Legionella* include water temperatures of 20° and 50°C (68° and 122°F), stagnation, and sediment.

Through the following activities, facility maintenance staff can play an important role in prevention of legionellosis in long-term care facility residents:

- Maintain a current map of the facility.
- Inspect the facility and grounds for any obvious source of aerosolized water, including cooling towers, decorative fountains, drinking fountains, eye wash stations, showers, hot tubs, misters, laundry facilities, kitchen sinks/dishwashers (industrial variety), outdoor irrigation systems, ice machines, and power washers.
- Water entry into facility
 - Know the location(s) where city water enters the facility.
 - Ensure that incoming water main backflow prevention devices are properly installed and tested/serviced annually. Maintain a service log of these activities.
- Plumbing work
 - Report any plumbing work or plumbing problems to the administration.
 - Know the location(s) and type(s) of recent (within the previous 6 months) plumbing work at the facility.
- Water quality
 - Check all potable water outlet temperatures monthly. If possible, also check water outlet pH and chlorine levels monthly.
 - Ideally, maintain the hot water heater supply temperature at ≥140°F, while ensuring that residents and staff are safe from scalding. This may require placing or adjusting mixing valves throughout the water system and/or at the point of use.
 - Ensure all water accessible to residents meets the North Carolina Department of Environment and Natural Resources temperature requirements (T15A: 18A .1300).
 - Maintain cold water as cold as possible.
 - Maintain a log of water quality measures.

- Incorporate a weekly flushing protocol into the maintenance plan for outlets in areas of vacancy and/or identified areas of water system “dead legs”.
- Inspect drip pans of air conditioning units and water heaters to assess any pooling and/or dripping of condensate.
- Emergency planning: Portable hand washing stations and portable toilets
 - In collaboration with administration, determine the number of portable hand washing stations and portable toilets that would be needed in the event of an emergency situation.
 - Consider the locations where these portable units would be placed at the facility.