

Preferred Code of Practice – Legionnaires Disease

Legionnaires Disease: Controlling the Risk

Legal claims for legionnaires disease can cost significant amounts in terms of compensation, for example 21,000 was awarded to a man who became infected with legionnaires disease whilst staying in a hotel. The illness can often be fatal and the publicity attracted by such cases is highly damaging to both the tour operator and the hotel.

The risk of Legionnaires disease can be significantly reduced by following a number of simple control measures. We have produced this guide in conjunction with advice from leading European specialists. Please take the time to read this information and to ensure that the guidelines are followed to help reduce the risk to your guests.

You may also have been given advice by your local Public Health Department. The information in this Code of Practice is intended to support such any such advice.

What is Legionnaires Disease?

A form of pneumonia which kills about 13% of those infected caused by legionella bacteria. Legionella bacteria can also cause less serious illnesses. Signs of illness usually appear 3 to 6 days after infection but may take longer.

Symptoms

The illness usually starts with a fever, chills, headache and muscle pain. This is followed by a dry cough and breathing difficulties that in some persons will progress to a severe pneumonia. About a third of those infected will also have diarrhoea or vomiting and about a half become confused or delirious.

In order to make an accurate diagnosis specific medical laboratory tests must be undertaken and may need repeating. In most cases this will not occur until after the guests have returned home.

How is Legionnaires disease caught?

Breathing in water spray that contains the legionella bacteria. Water spray can be produced from running a tap, flushing a toilet, running a shower or from bubbles rising through water in a spa pool. The bacteria multiply best in water within the temperature range of 20°C to 45°C. They can be readily found in natural water such as rivers, lakes and reservoirs but in low numbers. High numbers are associated with inadequately controlled hot and cold water systems and with wet cooling systems in buildings.

Can guests acquire Legionnaires Disease from hotels?

Yes, in 2001 over 500 cases that may have been acquired in a hotel were reported to EWGLINET, the European Surveillance Scheme for Travel Associated Legionnaires' Disease.

Are there any specific risk areas?

Wherever water sprays can be created there is a risk of infection e.g.:

- Showers and taps
- Spa baths and whirlpool baths
- Turkish baths and saunas
- Cooling towers and evaporative condensers, even if situated on the roof or in the grounds
- Garden irrigation systems
- Ornamental fountains, particularly indoors
- Humidified food displays

Where can legionella multiply?

- Hot and cold water tanks/cisterns
- Warm water between 20°C and 45°C
- Pipes with little or no water flow (this includes unoccupied rooms)
- Slime (biofilm) and dirt on pipe and tank surfaces
- Rubber and natural fibres in washers and seals
- Water heaters and hot water storage tanks
- Scale in pipes, showers and taps.

These situations and conditions encourage the growth of legionella bacteria and increase the risk of infection to hotel guests and staff.

Reducing the Risk

Legionnaires disease is preventable and any hotel that does not have an active legionella control programme is negligent in ensuring the safety of their guests. All hoteliers must have a control programme that includes the European 14 Point Action Plan.

Guidelines for Hoteliers – the 14-point checklist

1. Have one named person responsible for legionella control
2. Ensure the named person is trained in control of legionella and other staff are trained to be aware of the importance of their role in controlling legionella
3. Keep hot water hot and circulating at all times: 50°C–0°C (too hot to put hands into for more than a few seconds)
4. Keep cold water cold at all times. It should be maintained at temperatures below 20°C
5. Run all taps and showers in guest rooms for several minutes at least once a week if they are unoccupied and always prior to occupation
6. Keep shower heads and taps clean and free from scale
7. Clean and disinfect cooling towers and associated pipes used in air conditioning systems regularly – at least twice a year
8. Clean and disinfect water heaters (calorifiers) once a year
9. Disinfect the hot water system with high level (50mg/l) chlorine for 2–4 hours after work on water heaters and before the beginning of every season
10. Clean and disinfect all water filters regularly – every one to three months
11. Inspect water storage tanks, cooling towers and visible pipe work monthly. Ensure that all coverings are intact and firmly in place
12. Inspect the inside of cold water tanks at least once a year and disinfect with 50mg/l chlorine and clean if containing a deposit or otherwise dirty
13. Ensure that system modifications or new installations do not create pipework with intermittent or no water flow
14. If there is a spa pool (also known as whirlpool spas, “Jacuzzis”, spa baths) ensure that:
 - It is continuously treated with 2–3mg/l chlorine or bromine and the levels are monitored at least three times a day
 - At least half of the water is replaced each day
 - Sand filters are backwashed daily
 - The whole system is cleaned and disinfected once a week.

Daily records of all water treatment readings such as temperature and chlorine concentrations are kept and ensure the manager checks them regularly.

These guidelines are very important in reducing the risk from legionnaires disease and are designed as the minimum steps which will help in maintaining safety

Further advice about specific controls should be sought from a specialist expert in this field who can carry out a full risk assessment of your site in accordance with the EWGLI-guidelines. With reference made to these guidelines you may also wish to contact your National Public Health Department.

Water Treatment Systems

There are also a number of effective water treatment systems known to be beneficial in controlling water quality and safety. The type of system best suited for your hotel will depend upon a number of different factors relating to the size and type of your operation. Always seek independent advice from reputable and qualified people before choosing a system and remember that no system will work if not maintained and checked regularly.

Legionella Testing

Testing for legionella (Which is not compulsory) can be misleading. Tests should only be undertaken by accredited laboratories with experience in testing water for legionella bacteria. The collection of the samples should be undertaken after consultation with a trained legionella operative from an independent consultant or the testing laboratory. A negative result does not mean that the hotel is clear of legionella. The bacteria may be present in other parts of the system and full risk assessment together with proper maintenance and legionella control by heat or disinfection is essential.

Further information

If you would like any further information about controlling the risk of legionnaires disease please contact your Tour Operator, your local Public Health Department, or by visiting the European Working Group for Legionella Infections (EWGLI) website: www.ewgli.org

