

DCH05 - Legionella Policy and Procedure

Purpose

- Protect staff and patients from the risks from legionella.

Scope

- Service Provider and Registered Manager.

Policy

What is Legionnaires' disease?

- Legionnaires' disease is a potentially fatal pneumonia caused by legionella bacteria. It is the most well-known and serious form of a group of diseases known as legionellosis. Other similar (but usually less serious) conditions include Pontiac fever and Lochgoilhead fever.
- Infection is caused by breathing in small droplets of water contaminated by the bacteria. The disease cannot be passed from one person to another.
- Everyone is potentially susceptible to infection but some people are at higher risk, eg those over 45 years of age, smokers and heavy drinkers, those suffering from chronic respiratory or kidney disease, and people whose immune system is impaired.
- Legionella bacteria are common in natural water courses such as rivers and ponds. Since legionella are widespread in the environment, they may contaminate and grow in other water systems such as cooling towers and hot and cold water services.
- They survive low temperatures and thrive at temperatures between 20-45°C if the conditions are right, eg if a supply of nutrients is present such as rust, sludge, scale, algae and other bacteria. They are killed by high temperatures.

Duties under the law.

- Under general health and safety law, the Practice has to consider the risks from legionella that may affect staff or members of the public and take suitable precautions. The Practice will:
 - Identify and assess sources of risk;
 - Prepare a scheme (or course of action) for preventing or controlling the risk;
 - Implement and manage the scheme – appointing a person to be managerially responsible, sometimes referred to as the 'Nominated Person';
 - Keep records and check that what has been done is effective.

Assessing the risk

The risk assessment is the responsibility Registered Manager.

- The Practice will find out if the water systems (including the equipment associated with the system such as pumps, heat exchangers, showers etc) are likely to create a risk.
- Are conditions present which will encourage bacteria to multiply? For example, is the water temperature between 20-45°C?
- Is it possible that water droplets will be produced and, if so, could they be dispersed over a wide area? For example, consider showers and aerosols from cooling towers.
- Is it likely that anyone particularly susceptible will come into contact with the contaminated water droplets?
- Which systems present the greatest risk?
- Cooling towers, evaporative condensers and hot and cold water systems have been associated with outbreaks.

DCH05 - Legionella Policy and Procedure

Other potential sources where precautions might be needed include humidifiers and spa baths.

If the decision is that the risks are insignificant, the assessment is complete.

Preventing or controlling the risk

- If a risk is identified which cannot be prevented, the Practice will introduce proper controls.
- There will be a written scheme which sets out how you intend to control the risk from legionella.
- Design of the system – an up-to-date plan or schematic diagrams are sufficient;
- The Practice Manager is responsible for carrying out the assessment and managing its implementation;
- Protocols for the safe and correct operation of your system;
- What control methods and other precautions will be used; and
- what checks will be carried out on the control scheme and how often.

The key point is to design, maintain and operate the water services under conditions which prevent or control the growth and multiplication of legionella.

The Practice will -

- Ensure that the release of water spray is properly controlled;
- Avoid water temperatures and conditions that favour the growth of legionella and other micro-organisms;
- Ensure water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible or by removing redundant pipework;
- Avoid materials that encourage the growth of legionella;
- Keep the system and the water in it clean; and
- Treat water to either kill legionella (and other micro-organisms) or limit their ability to grow.
- In hot and cold water systems legionella have traditionally been controlled by storing hot water above 60°C and distributing it at above 50°C – and keeping cold water below 20°C if possible. Other methods which are used include copper/silver ionisation and chlorine dioxide.

The following advice from the Health and Safety Executive should be included in any planning -

One way of controlling legionella is to keep water hot, which you may be doing for other reasons already.

However, care is needed where water runs hot. The risks of scalding should be assessed and appropriate measures taken to prevent burns, eg warning notices and thermostatic mixing valves on taps.

Can I reduce my water temperatures if I am using another method of controlling legionella?

It depends. If you don't need the hot water for other reasons, then using another effective treatment method means that you can reduce water temperatures. There is specific advice on this issue in hospitals and you should refer to this. It recommends keeping the water hot and not reducing the temperature (see Further Information section).

But whatever treatment method you use, you need to make sure you know:

- What the effective level of control is for your system, eg temperature and concentration of biocides;
- If the treatment method can cope with changes in the system, eg variations in the amount of water used throughout the day; and
- How you are going to measure the effectiveness of the treatment method. For example, if you are using temperature as a control method you can take the temperature of the water coming out of the taps.

DCH05 - Legionella Policy and Procedure

Should I take samples to test for legionella?

It depends. Sampling and testing for the presence of legionella bacteria is just one way of checking that your system is under control. But it is not a simple test, as sampling and detecting legionella requires specialist help. Further details on how to sample and the frequency of sampling in both cooling towers and hot and cold water systems can be found in Part 2 of the ACOP and guidance (see Further Information section).

Managing the risk

You need to appoint someone to take responsibility for managing the control scheme that you have put in place.

The 'responsible person' needs to be competent – that is, they need to have sufficient knowledge and experience of your system to enable them to manage and control the scheme effectively.

If there are several people responsible for managing the system and/or control scheme, for example because of shift-work patterns, you need to make sure that everyone knows what they are responsible for and how they fit into the overall management of the system.

If you decide to employ contractors to carry out water treatment or other work, it is still the responsibility of the appointed person to ensure that the treatment is carried out to the required standards.

And remember, before you employ a contractor, you should be satisfied that they can do the work you want to the standard that you require. A Code of Conduct for service providers has been prepared to help you with this (see Further Information section for details).

What records do I need to keep?

If you employ five or more people you must record the significant findings of your risk assessment. This means writing down the significant findings of the assessment and details of any monitoring or checking carried out.

If you have fewer than five employees you do not need to write anything down, although it is useful to keep a written record of what you have done.

You also need to keep records of your written scheme and who is responsible for managing that scheme. You should also keep the results of your routine monitoring. You need to keep these records for a minimum of five years.

Does anybody else have to do anything about legionella?

Yes. Anyone who is involved in the supply of water systems and their components (eg designers, manufacturers, water treatment companies and suppliers) has to make sure that such equipment is designed and made in such a way that it is safe to use at work and that it can be easily cleaned and maintained.

They should tell you what risks might be present and how you can operate and maintain the system safely.

If you are using products or services, for example, for water treatment, the suppliers must make sure that these are effective at controlling legionella and that they can be used safely at work.

They should also tell you if, while they are treating your system, they find any problems which could pose a significant risk of legionella exposure.

Do I have any other duties?

Yes. If you have a cooling tower or evaporative condenser on site you must, under the Notification of Cooling Towers and Evaporative Condensers Regulations, notify the local authority in writing with details of where it is located. You must also tell them when/if such devices are no longer in use. Notification forms are available from your local environmental health department.

If you have a case of legionellosis in an employee who has worked on cooling towers or hot water systems that are likely to be contaminated with legionella, you have to report this under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.

DCH05 - Legionella Policy and Procedure

What happens when there is an outbreak?

Local authorities have special plans for dealing with major outbreaks of infectious disease including legionellosis. These are usually investigated by an Outbreak Control Team whose purpose is to protect public health and prevent further infection.

DCH05 - Legionella Policy and Procedure

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