Managing Legionnaires’ Disease

Introduction

Legionnaire's disease is an uncommon but potentially fatal illness caused by a bacterium called *Legionella pneumophila*. The disease is contracted by inhalation of water droplets or spray-mists contaminated by *Legionella*. According to the United Kingdom's National Health Service (NHS), Legionnaires’ disease is “three times more common in men than women (68.1% cases on average are male) and it mostly affects people who are over fifty years old”. People are more susceptible to the disease if they are current smokers, former smokers or have had problems with their lungs. It is not caused by drinking contaminated water and it does not spread from person to person.

The majority of cases reported are usually isolated but sometimes outbreaks can occur. A recent outbreak in Stoke-on-Trent infected nineteen people all of whom were aged from their late forties to their mid seventies. Of the nineteen people infected, one person died. The NHS estimate that in England and Wales, 10-15% of people who contract Legionnaires’ disease will die from the condition.

Legionnaires’ may not develop until 2-14 days after exposure, therefore, it is very important to be aware of the disease’s symptoms which may include:

- High temperature
- Cough
- Muscle pains (myalgia)
- Headache
- Pneumonia
- Very occasionally diarrhoea and signs of mental confusion

Although the NHS confirms that there were “345 reported cases of Legionnaires’ disease in England and Wales in 2009, which resulted in 43 deaths”, the number of cases may be higher because many cases of pneumonia might not be tested for the disease.

The duty of care

Employers, building owners and occupiers need to be aware of the dangers and possible criminal and civil proceedings which could result from an outbreak of Legionnaires’ disease. Recent high profile incidents in the UK have occurred in Edinburgh (an estimated 100 cases), Barrow-in-Furness and Hereford.

Further afield, an outbreak in Chicago in 2012 resulted in fatalities arising from alleged exposure at a JW Marriott Hotel. Whilst the cause is still under investigation, reports suggest a decorative hotel fountain may be the source of the *Legionella*.

Purpose-built water systems are often the culprit when exposure to *Legionella* occurs because the water is warm enough – usually between 20°C and 45°C – to encourage bacterial growth. This growth of bacteria is also often found in bodies of stagnant water such as those stuck in shower pipes. It is therefore important for water to be kept flowing.

Does your hospitality business include any of the following water systems which could harbour *Legionella*? If so, there are measures that must be taken to avert the risk of Legionnaires’ disease.

- Spa baths, hot tubs, whirlpool baths and spas
- Hot & cold water systems including cisterns, water heaters and storage tanks
- Turkish baths and saunas
- Ornamental fountains, particularly indoor fountains
- Humidifiers and humidified food displays
- Cooling towers
- Evaporative condensers
- Air conditioning systems
- Water used for domestic purposes in buildings such as hotels or care homes
Responsibility of duty holders

Under general health and safety law, duty holders are obligated to consider risk from *Legionella* that may affect staff or members of the public and take suitable precautions.

The Health and Safety Executive (HSE) states that, as an employer or person in control of premises (for example, owners and landlords), it is necessary to:

- Identify and assess sources of risk through risk assessment;
- Prepare a scheme (or course of action) for preventing or controlling the risk;
- Implement and manage the scheme – appointing a person to be responsible;
- Keep records and check that what has been done is effective; and
- If appropriate, notify the local authority that there is a cooling tower on site.
- Have a written scheme to outline how the risk from *Legionella* is to be controlled which should include:
  - An up-to-date plan or schematic diagram of the system;
  - Details of the person responsible for carrying out assessment and managing its implementation;
  - Instructions on the safe and correct operation of the system;
  - Details of the control methods and precautions to be used;
  - Types and frequency of checks that will be carried out. (Source: HSE)

Case in point

In 2011, after the death of a guest in 2008, a golf and leisure resort near Dundee, Scotland, was fined £120,000 for failing to control the *Legionella* bacteria in their hot tubs and water systems.

The resort’s Managing Director had wrongly assumed that the bacteria thrive in dead pipe work or old systems only; he thought that because his equipment was new and in constant use, there would be no risk. The Company had incorrectly believed that because it had followed the manufacturer-supplied guidelines it had met Health and Safety obligations.

The investigating officers found that the resort had failed to carry out suitable and sufficient risk assessments; it had inadequate control measures for monitoring the temperature of its water systems; it had failed to sufficiently clean its shower heads; and had not appointed an appropriately trained ‘responsible person’ to take operational responsibility for meeting these standards.

This is a cautionary illustration of the maxim: ignorance of the law is not a defence against it!

Legislation & codes

The following UK legislation outlines the responsibilities of businesses in maintaining safe premises for staff and the public:

- The Control of Substances, Hazardous to Health Regulations 1999 (COSHH)
- The Management of Health and Safety at Work Regulations 1999
- Health and Safety At Work Act 1974
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).
- The Notification of Cooling Towers and Evaporative Condensers Regulations 1992
- Corporate Manslaughter and Corporate Homicide Act 2007
- HSE: Approved Code of Practice & Guidance (L8)

Penalties for breach

Legionnaire’s disease is a high-profile issue that attracts harsh penalties. The HSE is very active in this area and maintains a Register of Prosecutions, which can be found here.

On conviction, fines have ranged from hundreds to hundreds of thousands of pounds. Additionally, the implications of any deaths that arise from a duty holder’s breach have become more acute for businesses since the Corporate Manslaughter and Corporate Homicide 2007 Act (CMCHA) came into force in February 2009. All businesses should note that sentencing guidelines indicate that fines are assessed by reference to annual turnover and severity of the case, which could be measured in millions of pounds. The latest fine was for £480,000 plus prosecution costs of £84,000.
Whilst individuals cannot be prosecuted under the CMCHA, directors and managers can still be fined and even imprisoned under Health and Safety legislation, or under common law if a fatality has occurred as a result of an individual’s gross negligence.

In addition to criminal responsibility duty holders could also face substantial claims for damages in civil proceedings in respect of injuries and deaths arising from their negligence or breach of statutory duties.

**Prevention and control of Legionnaires’ Disease**

Risks from *Legionella* in water systems can be controlled through careful planning, a risk management policy and accompanying document, competent staff and attention to proper control strategies.

The UK’s HSE provides extensive information regarding the prevention of Legionnaire’s. The HSE confirms that, when dealing with designers, manufacturers, water treatment companies and suppliers of equipment, it is essential to make sure that equipment for water services is designed and manufactured properly to ensure the water systems can be maintained and cleaned easily. Consideration should always be given to the type of water system needed – for example: using a cooling tower with a dry air cooled system offers less risk than using a wet cooling tower.

If using chemical cleaning products or services for water treatment check with the supplier to ensure that these are effective at controlling *Legionella* and that they can be used safely by housekeeping and maintenance staff. The regular cleaning, maintenance and treatment schedules applied based on manufacturers’ recommendations should ensure good hygiene and avoid the growth of bacteria.

To maintain water services, checks should include:

- “Ensuring that the release of water spray is properly controlled;
- Avoiding water temperatures and conditions that encourage *Legionella*;
- Ensuring that water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible or by removing redundant pipe work;
- Avoidance of materials that encourage the growth of *Legionella*;
- Keeping the system and water in it clean;
- Treatments of water to either kill *Legionella* or limit its ability to grow.” (Source: HSE)

A Code of Conduct for Service Providers is available from the HSE and the Water Management Society and can help owner/operators select competent contractors if any work relating to water service systems is being undertaken.

[Image of a hot water faucet with the text “HOT”]
In the case of an outbreak

In the UK, local authorities have special plans for dealing with major outbreaks of infectious disease. Outbreaks are usually investigated by an ‘Outbreak Control Team’, whose purpose is to protect public health and prevent further infection. The HSE or local authority Environmental Health Department may also be involved in investigating compliance with health and safety legislation.

To obtain further support regarding preventing or addressing the risk of Legionnaires’ and Legionella, the Further Resources section offers links to detailed guidance.

---

This guide was prepared by Alan Davies, Partner at Pitmans LLP. Pitmans is the Thames Valley’s leading law firm, with a specialist Hospitality team that deliver expert legal advice direct to the sector. Alan Davies can be contacted by email at: alandavies@pitmans.com or telephone: 0118 957 0300.

---

Further resources

Chartered Institution of Building Services Engineers (CIBSE)
www.cibse.org

Controlling Legionella in nursing and residential care homes (2009). HSE.
www.hse.gov.uk/pubns/indg253.pdf

ESGIL – a newly formed European Society of Clinical Microbiology and Infectious Diseases (ESCMID) Study Group in the field of Legionella infections.
www.escmid.org/research-projects/study-groups/legionella-infections/

Health and Safety Executive (HSE) UK website for Legionnaires’ disease.
www.hse.gov.uk/legionnaires/

Information for Owners and Managers of Hotels and Other Accommodation Sites: Minimising the Risk. The European Working Group for Legionella Infections (January 2010). HPA.
www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1274089027886

---

DISCLAIMER

This brief is intended as a guide only. While the information it contains is believed to be correct, it is not a substitute for appropriate professional advice. The Institute of Hospitality can take no responsibility for action taken solely on the basis of this information.