Pav Dental

# Legionella & DUWL Policy

Pav Dental accepts its responsibility under the Health & Safety at Work Act 1974 and the COSHH Regulations 2002, to take all reasonable precautions to prevent or control the harmful effects of contaminated water on residents, patients, visitors, staff, and other persons working at or using its premises.

Under general health and safety law, dutyholders including employers or those in control of premises must ensure the health and safety of their employees or others who may be affected by their undertaking. They must take suitable precautions to prevent or control the risk of exposure to legionella. They also need to either understand or appoint somebody competent who knows how to identify and assess sources of risk, manage those risks, prevent or control any risks, keep records and carry out any other legal duties they may have.

Pav Dental will provide a framework for the prevention of infection from water-borne bacteria through inhalation or aspiration. Pav Dental aims to maintain a structured procedure and reporting schedule for the management and control of legionella.

The practice must:

- Identity and assess sources of risk
- Prepare a scheme for preventing, reducing or controlling the risk
- Appoint a person to be managerially responsible
- Implement, manage and monitor all precautionary control measures identified
- Keep records of the precautions implemented
- Review this statement on a yearly basis

The primary defence strategy for reducing the risks posed by legionella will be through a temperature control regime. This regime may be supplemented by the additional use of a chemical and other water treatment methods but will not be replaced by any other method.

This statement must be backed up with procedures and a written scheme, which is provided by your legionella risk assessor.

Carrying out a legionella risk assessment and ensuring it remains up to date is required under health and safety law and is a key duty when managing the risk of exposure to legionella bacteria. In conducting the assessment, the dutyholder must appoint a competent person or persons, known as the responsible person(s), to help them meet their health and safety duties, i.e. take responsibility for managing the control scheme. If the necessary competence, knowledge and expertise do not exist, there may be a need to appoint someone externally.

The responsible person(s) appointed to take day-to-day responsibility for managing risks in their business will need to understand the water systems, any equipment associated with the system, and all its constituent parts. They should be able to identify if the water systems are likely to create a risk from exposure to legionella bacteria by assessing if:

- water is stored or re-circulated in the system
- the water temperature in all or some parts of the system may be between 20–45 °C
- there are deposits that support bacterial growth, including legionella, such as rust, sludge, scale, organic matter and biofilms
- it is possible for water droplets to be produced and, if so, whether they can be dispersed
- it is likely that any of your employees, contractors, visitors, the public etc could be exposed to contaminated water droplets

If the risk assessment concludes there is no reasonably foreseeable risk or the risks are insignificant and are managed properly to comply with the law, the assessment is complete. Although no further action may be required at this stage, existing controls must be maintained. The assessment of risk is an ongoing process and not merely a paper exercise. Duty holders should arrange to review the assessment regularly and specifically when there is reason to suspect it is no longer valid. An indication of when to review the assessment and what to consider should be recorded and this may result from. e.g.:

- a change to the water system or its use
- a change to the use of the building where the system is installed
- new information available about risks or control measures
- the results of checks indicating that control measures are no longer effective
- changes to key personnel
- a case of legionnaires' disease/legionellosis associated with the system

The decision to repeat your external assessment lies with the appointed practice dutyholder. The dutyholder should review the advice and requirements from the previous report and decide if there are any justified changes to the practice protocols and procedures that would require the need for a re-review with an external assessor.

If you decide not to renew your external assessment in line with the recommended time frame from your previous assessor, please ensure you are able to justify your reasons for this decision.

## Managing the Risk

Inadequate management, lack of training and poor communication can be contributory factors in outbreaks of legionnaires' disease. It is important that those people involved in assessing risk and applying precautions are competent, trained and aware of their responsibilities.

The dutyholder should specifically appoint a competent person or persons to take day-to-day responsibility for controlling any identified risk from legionella bacteria. It is important for the appointed person, known as the responsible person(s), to have **sufficient authority, competence and knowledge of the installation** to ensure all operational procedures are carried out in a timely and effective manner.

The responsible person(s) appointed to implement the control measures and strategies should be suitably informed, instructed and trained and their suitability assessed. Regular refresher training

should be given and the responsible person(s) should have a clear understanding of their role and the overall health and safety management structure and policy in the organisation.

If a dutyholder is self-employed or a member of a partnership, and is competent, they may appoint themselves. Many businesses can develop the necessary expertise in-house and are well-equipped to manage health and safety themselves. However, if there are some things they are not able to do, it is important to get external help. If there are several people responsible for managing risks, eg because of shift-work patterns, the dutyholder needs to make sure that everyone knows what they are responsible for and how they fit into the overall risk management of the system.

Identifying and deciding what help is needed is very important but it is the responsibility of the dutyholder to ensure those appointed to carry out the tasks given to them have adequate information and support.

Dutyholders can use specialist contractors to undertake aspects of the operation, maintenance and control measures required for their water system. While these contractors have legal responsibilities, the ultimate responsibility for the safe operation of the water system rests with the dutyholder. It is important they are satisfied that any contractors employed are competent to carry out the required tasks and that the tasks are carried out to the required standards. The contractor should inform the dutyholder of any risks identified and how the system can be operated and maintained safely.

There are a number of external schemes to help you with this, such as the Legionella Control Association's *A Recommended Code of Conduct for Service Providers*.

## Dental Unit Water Lines (DUWL)

### Definitions:

**Biofilm -** structured community of microorganisms inhabiting a self-developed extracellular biopolymeric matrix attached to a surface.

**Dental Unit -** a combination of interconnected dental equipment and dental instruments constituting a functional assembly for use in the provision of dental treatment.

Scientific studies have demonstrated that untreated water from dental units carries a significantly higher microbial load than water from the mains supply. A further factor is that water coming through dental handpieces generates aerosols that can be inhaled by team members and patients. These two factors significantly increase the potential risk of infection particularly to a medically compromised patient.

We all have a duty of care to minimise any risk of cross-infection to our patients and team members, meaning that dental units must be treated and monitored.

No currently available single method or device will fully eliminate biocontamination of DUWLs or exclude the risk of cross-infection.

Self-contained water bottles (bottled water system) should be removed, flushed with distilled or RO water and left open to the air for drying overnight. They should be stored inverted. Please check

with your manufacturer's guidance as certain treatment systems require you to keep the bottle attached at all times unless re-filling or deep cleaning.

## Daily Recommendations

DUWLs should be flushed for at least two minutes at the beginning and end of the day and after any significant period when they have not been used (for example, after lunch breaks). In addition, they should also be flushed for at least 20–30 seconds between patients. Whilst these actions have been shown to have only a small effect on biofilm build-up within the DUWL system, they do usefully reduce microbiological counts in the water delivery tube during the period when patients are likely to be exposed. Some water-purification systems are capable of supplying DUWLs and may be able to reduce microbiological risks.

Where in-line filters are used, these will require treatment using an appropriate cleansing solution at intervals recommended by the manufacturer, but always at the end of each session. This step should be performed after first flushing the DUWL.

If the DUWL has disposable filters, they should be replaced daily.

## Quarterly Recommendations (Not Mandatory)

Dip Slide (Water Sampler) tests can be carried out every 3 months and recorded on a validation sheet. The Colony Forming Unit (CFU) should be analysed by the following results:

- 0-80– Pass
- 80-100 – Caution
- >101 Fail

If sites have a high CFU count, a deep clean of the system is advised immediately.

## Periodical Recommendations

Disinfection of DUWLs should be carried out periodically. In all cases, the manufacturer’s instructions should be consulted. Sodium hypochlorite and isopropanol and several other agents have been shown to be effective in the removal of biofilm as well as the reduction of micro-bacterial contamination. However, these agents should only be used where recommended by manufacturers. If they are used, care should be taken to ensure that DUWLs are thoroughly flushed after disinfection and before being returned to clinical use.

## Decommissioning a DUWL

Always follow the manufacturer's guidance for the temporary decommissioning of DUWLs. If you do not have access to the manufacturer's guidance, DUWLs must be flushed, drained and left disconnected. If this is not practicable, they should be flushed weekly. If using self-contained water

bottles, these should be removed, flushed with distilled or RO water and left to open air dry. After drying, they should be stored inverted to prevent contamination.

Please note that several newer treatment systems may require differing protocols, and this should always be sought when decommissioning takes place.

## Document Control

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| | | | | Alpron except where HTM guidance differs when using Alpron and made more generic. |
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