



Navigating the waterline regulations

Simon Davies¹ explores the main regulations governing dental waterline management in England.

Dental waterline management is an issue that we overlook at our peril. Yes, some microorganisms that live in water are harmless, but also lurking in there may be the likes of *Legionella* bacteria, alongside *Pseudomonas* and *Mycobacterium* species.

¹ *Managing Director, CleanCert, a company specialising in innovative dental infection control and water purification products. CleanCert+ can help you to exceed best practice levels in waterline disinfection. For details on how this independently tested product can achieve a total viable count dip of 0 cfu/ml in your practice, visit cleancert.co.uk, email sales@cleancert.co.uk or call 08443 511115.*

To bring these bacteria sharply into focus, *Legionella* species is a major contributor to Legionnaire's disease, *Pseudomonas aeruginosa* can cause pneumonia in immunocompromised patients, while *Mycobacterium* species can result in pulmonary disease and opportunistic wound infections.¹

Legal compliance

In England, the Care Quality Commission (CQC) inspects whether standards are being met in dental practices. Specifically, Regulation 15 relates to the safety of equipment such as dental unit waterlines. It is in line with this Regulation that CQC inspectors will rate the practice's success (or failure) in eliminating potentially harmful biofilms in water lines.

There is a host of legislation and guidance that may be relevant when it comes to meeting the CQC's requirements, which can be found in full on the CQC's website. However, for our purpose here, the most pertinent are:

- HTM 01-05: Decontamination in primary care dental practices²
- HTM 04-01: Safe water in healthcare premises³
- Approved Code of Practice and Guidance L8 (ALCOP L8).⁴

HTM 01-05 states: 'Registered Managers of dental practices have an overriding general duty of care under the Health and Safety at Work Act 1974'. An important aspect of this duty of care is ensuring that the water coming into the practice, how it is stored and then how it is delivered all comply with the best practice guidance provided in HTM 04-01 and ALCOP L8.²

HTM 01-05 itself offers an overview of dental unit waterline (DUWL) regulation, covering issues including – but not limited to – microbiological monitoring, disinfection processes, *Legionella* risk assessment and what to do in the case of an unexpected DUWL shut-down.²

Moving on to HTM 04-01, its purpose is to offer guidance on controlling *Legionella*: 'Provided water is supplied from the public mains and its quality is preserved by correct design, installation and maintenance, it can be regarded as microbiologically acceptable for use. It is exceptional, however, for a water supply, either public or private, that is wholly "potable" to be entirely free from aquatic organisms, and consequently it is important that appropriate measures are taken to guard against conditions that may encourage microbial multiplication.'³

Taking 'appropriate measures' involves a number of factors but perhaps most important to those who operate and maintain water services in a dental practice are sections:

5. Appoint a competent person to help take the measures needed to comply with the law.⁴

Dipping your toe in safer waters

As John Milne, the CQC's Senior National Dental Advisor, wrote, 'A variety of products are available to disinfect waterlines and they should be used daily according to [the] manufacturer's instructions.' However, he added: 'Not all products completely remove biofilm [...].'⁵

1. Mensudar R, Anuradha B, Aishwarya A. Make your water safe in dentistry. *J Int Oral Health* 2016; **8**: 995-998.
2. Department of Health. Health Memorandum 01-05: Decontamination

'SOME MICROORGANISMS THAT LIVE IN WATER ARE HARMLESS, BUT ALSO LURKING IN THERE MAY BE THE LIKES OF LEGIONELLA BACTERIA, PSEUDOMONADS AND MYOBACTERIA SPECIES'

- Emphasising the need for robust governance and management
- Outlining the responsibilities of the water safety group and how this relates to the provision of safe water in healthcare premises
- Summarising key criteria and system arrangements to help stop the ingress of chemical and microbial contaminants, as well as microbial colonisation and bacteria proliferation
- Demonstrating temperature regimes for sanitary outlets to maintain water hygiene
- Offering a simple summary of possible potential waterborne pathogens.³

As for ALCOP 08, it contains practical guidance on how to manage and control the risks posed by the practice's waterlines. Following this guidance offers the dental team considerable reassurance that legal requirements are being met or, at the very least, an effort to meet them can be proven, should any complaint or problem arise.

In essence, the responsible person in the practice needs to:

1. Identify and assess sources of risk
2. If appropriate, prepare a written scheme for preventing or controlling the risk
3. Implement, manage and monitor precautions
4. Keep records of the precautions taken

in primary care dental practices. 26 March 2013. Available at: <https://www.gov.uk/government/publications/decontamination-in-primary-care-dental-practices> (accessed February 2018).

3. Department of Health. Health Technical Memorandum 04-01: Safe water in healthcare premises. 2006, last updated 2017. Available at: <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises> (accessed February 2018). [Previous version: HTM 04-01 Part A Water systems - the control of Legionella, hygiene, 'safe' hot water, cold water and drinking systems - part A: design, installation, and testing. 2006.]
4. Health and Safety Executive. Legionnaires' disease. The control of legionella bacteria in water systems. Approved Code of Practice and Guidance. 2013. Available at: <http://www.hse.gov.uk/pubns/books/18.htm> (accessed February 2018).
5. Care Quality Commission. Dental mythbuster 5: Legionella and dental waterline management. Available at: <https://www.cqc.org.uk/guidance-providers/dentists/dental-mythbuster-5-legionella-dental-waterline-management> (accessed 4 October 2017).

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