

## **Instrument cleaning: What are the options?**

**Henry Clover, Denplan's Deputy Chief Dental Officer, discusses the most appropriate cleaning methods to adhere to HTM01-05 guidelines.**

Decontamination is the process by which reusable instruments and equipment is rendered safe for further use. This involves several stages including cleaning, sterilisation, inspection and storage. Cleaning lowers the bacterial load significantly and should be carried out as soon as possible after instruments have been used. Without adequate cleaning to begin with, the next stage of sterilization will be ineffective.

Guidelines on decontamination were issued by the Department of Health in December 2009 in the form of HTM 01-05. This detailed the following three options:

- **Manual cleaning**

In principle, manual cleaning is the easiest to set up, however it presents a greater risk of inoculation injury to staff. It's also difficult to validate as there is no way to ensure it's carried out effectively on each occasion. That's why it's important that suitable practice staff are provided with a written policy and trained appropriately.

Manual and ultrasonic cleaning is acceptable under the Essential Quality Requirements of HTM 01-05 in England and Wales. Within the best practice framework, however, manual cleaning should only be considered where the manufacturer specifies that an instrument or device is not compatible with an automated process.

- **Ultrasonic cleaning**

Ultrasonic cleaning baths offer an effective method for cleaning intricate, jointed or serrated instruments. Plastic instruments are not effectively cleaned by this method as they absorb the ultrasonic energy. The manufacturer's operating instructions should be followed and a specified and documented procedure followed.

- **Thermal washer disinfectors**

Studies have shown that washer-disinfectors are more effective at reducing the bacterial load than either hand or ultrasonic cleaning of dental instruments. Staff safety is also enhanced as the handling of sharp, contaminated instruments is greatly reduced. However, depending on the cycle time, the turnaround time for instruments may be increased, necessitating an increased stock of instruments. Washer disinfectors, for example, take around 90 minutes to process a load and a Local Decontamination Unit (LDU) might process a maximum load in just under two and a half hours.

The cleaning cycle includes a cool pre-wash to prevent protein coagulation and fixing of soil to the instruments, main wash, thermal disinfection (at 80 - 90° for a specified period) and post-disinfection rinse. Washer disinfectors are the preferred method of cleaning because it offers the best option for control, reproducibility and validation of cleaning.

**Support and guidance**

Although many of the requirements of HTM 01-05 are couched in terms of 'should' or 'ought', it's important to know where you stand and what the practices' responsibilities are. Some payment plan providers offer a range of decontamination guidance, including online quality manuals, practice assessments, and decontamination checklists to help you ensure your practice is following the regulations appropriately. Some also offer a bespoke service to help promote your work through your local press, as well as decontamination and infection-control specific training courses which can also earn verifiable CPD.

Hopefully the information above has 'cleaned up' any questions you may have about appropriate cleaning methods, but remember that you're not alone in having queries, so it's a good idea to make use of helpful support and services where you can.

**-Ends-**

**About the author**

***Dr Henry Clover - Deputy Chief Dental Officer***

Henry is a former general dental practitioner who converted his own practice to private practice in 1993. With his experience as a Denplan member dentist, he joined Denplan's Professional Services department on a part-time basis in 1998 and full-time in 1999, with responsibility for professional support and member services.

Henry has now been promoted to Deputy Chief Dental Officer and is responsible for the Professional Services team as well as being a member of the Executive Leadership Team, supporting Denplan's motto – 'By Dentists, For Dentists'.