

# Implementing HTM 01-05 – and working with the results

Tony Beale recently talked to Dr Chris Orr about his decision to implement a state-of-the-art local decontamination unit (LDU) within his new practice, and his experience of using the equipment

Mention the name Chris Orr and dental professionals will immediately associate him with high-grade postgraduate teaching programmes, which place particular emphasis on practical systems and techniques that can become part of everyday private practice procedures.

Chris is not just recognised as a progressive teacher in dentistry, but in his role as a practising dentist he is well aware of the continual regulatory requirements that are demanded of the modern dental practice.

It was therefore a pleasure to speak with Chris recently about

the 'showpiece' LDU that was incorporated into the design and build of his new practice in London.

## Why set up an LDU?

I started out by asking Chris just what had prompted him to set up a specific decontamination unit within his new practice. He told me that the practice was built in an empty shell building, and in view of the importance in conforming to the latest HTM 01-05 guidelines, it was an easy decision to design the surgery around the 'best practice' procedures so that it would be

compliant from day one.

The LDU project would therefore not just be an important part of the practice set-up, but would also serve as a model that would enable him to advise others on how they could incorporate the essential equipment and procedures that would ultimately be of benefit to all involved.

## Design and furnishing

Chris said that the LDU represented a considerable investment for the practice, both in time and money, so he wanted to be sure that whatever systems

were chosen, they would completely fulfil his exacting requirements.

The layout and general design of the unit demanded particular attention as it was essential that the unit be practical and functional. Chris wanted the operation of the LDU to be as straightforward as possible so that the ideal decontamination procedures could be repeated routinely without error.

He said: 'Any routine procedure must be as simple as possible, so that it can be done properly over and over again, without too much fuss.'

As the practice was a new build, the LDU was incorporated at the design stage. A plan was drawn up that would allow full use of the space available. The LDU was placed in a central area with direct communication with all six surgeries. Having the unit centrally located made it easier to streamline the flow of instruments through the decontamination process, and also ensured that cleaning of instruments did not take place in the surgeries.

In line with correct LDU requirements, the decontamination unit had to allow a through 'flow' of instruments that



Figure 1: The receiving area for contaminated instruments where initial sorting is carried out and sharps are disposed of prior to disinfection



Figure 2: The instrument processing area



Figure 3: Loading of instruments into the Hydrim washer/disinfector, using the supplied baskets for ease of transfer



Figure 4: Lubrication of handpieces using the Statmatic handpiece processing centre



Figure 5: Easy transfer of instruments from the Hydrim washer-disinfector to the Statim autoclave using the baskets





**Figure 6:** Larger trays are processed in the Bravo vacuum autoclave



**Figure 7:** Once sterilised, instruments are pouched and passed through to the clean area for storage



**Figure 8:** Instruments being loaded into the mobile carts for re-use in the surgeries

followed a path from the 'dirty' area to the 'clean' zone. To achieve this it was necessary to have designated zones devoted to specific cleaning and decontamination procedures. The unit also needed to have work surfaces that should be kept free of clutter and allow storage of sterilised and packaged instruments in the clean zone.

Benches were sourced from Schottlander, which had the additional advantage of stainless steel countertops that were easily cleaned. Some of these units had to be custom made to make best use of the available space.

#### Choice of equipment provider

'Making the right choice of equipment for the unit, when there was a veritable minefield of choice, was not easy,' said Chris. 'I needed to do a considerable amount of research in order to acquaint myself with what the market could offer.'

He added: 'In this respect, I was aware of the not inconsiderable amount of information that has materialised over the past few years, which includes the updated BDA A12 advice sheet, HTM 01-05 from the Department of Health, and the various EU standards and guidelines like EN 15883/HTM 2030 for washer-disinfectors, EN 13060/HTM 2010 for sterilisers, Medical Devices Directives 93/42/EEC, etc, so obviously I wanted to make sure everything we were intending to invest in would conform.'

Chris then told me that he contacted companies he felt would be 'in the know' about what equipment was available, and just how easy or difficult it might be to install and maintain, hopefully without too much disruption to the normal practice routines!

He said: 'I have had a very long standing and amicable relationship with Optident, and they proved to be really helpful, particularly with regards to providing the right information on equipment choice and

installation advice.'

Optident work closely with Canadian manufacturer Sci Can, acting as a UK distributor for their products. The Sci Can company are recognised as manufacturers of innovative dental equipment, and specialise in producing decontamination equipment for dental use.

Chris said: 'Sci Can have a reputation for producing compact and efficient equipment. I have frequently been impressed with their unique approach to design and manufacture, so they were a strong candidate from the start.'

After several discussions and meetings with representatives from Optident and Sci Can, a decision was then made to obtain the appropriate items of equipment that would provide the hardware needed to be placed in the LDU.

#### Equipping the LDU

It was decided that Chris's essential equipment requirements were a washer/disinfecter, together with a fully comprehensive autoclaving regime that catered for all sterilisation procedures, including handpiece sterilisation and maintenance.

'Handpiece cleaning and maintenance has always proved difficult', remarked Chris. 'But we now make full use of the Sci Can 'Statmatic' maintenance system.

The Sci Can Statmatic is a compact, self-contained unit that allows cleaning and lubrication of three handpieces simultaneously. It allows a rapid turnaround cycle of only 15 seconds per handpiece for those frequently used instruments, and like so many other equipment components in the LDU it reduces cleaning and maintenance time considerably. The Statmatic unit is linked to a compressed air supply with handpieces automatically receiving the right amount of lubricant, after which they are purged of excess lubricant to ensure the correct steam penetration of the small lumens

during sterilisation.

Chris went on to tell me that hand instruments are now cleaned and disinfected using the Sci Can 'Hydrim' washer/disinfecter. This unit is a table-top type, and he pointed out that its main advantages are to the practice staff who no longer need to go through the very labour intensive and time consuming methods of instrument debris removal by hand.

Instruments loaded into the Hydrim are subjected to cleaning via high pressure water jets that remove any clinging debris such as blood and tissue, and that protein removal can be as high as 99.9%. Its touch screen controls also make for easy operation.

Chris commented that another important aspect of the Hydrims operation was that it virtually eliminated the risk of accidental injury and possible infection to his practice staff.

#### Autoclaving and sterilisation

In order to comply with all the various regulatory requirements as regards effective sterilisation procedures, the LDU now makes use of two 'Statim' 5000S model autoclaves. These were selected in preference to the smaller Statim 2000S autoclaves because of their higher load capacity.

Both these space-saving, table-top 'S Cycle' autoclaves have proven themselves to be extremely effective, having been produced now for many years and offering rapid sterilisation of dental instruments, with cycles that are approximately five times faster than those of a 'B Cycle' autoclave.

The LDU also makes full use of the newly introduced Sci Can 'Bravo' B Cycle autoclave, as this provides a fast cycle, pre-vacuum function that removes air, and a post-vacuum function that assists in instrument drying, thus ensuring perfect steam penetration and drying for virtually all types of load. This unit is used for larger items, e.g. implant surgery kits, which must be sterilised on their trays, and that are too large to fit into the

Statim units. It will also serve as a back-up machine in the unlikely event of both Statim autoclaves being out of service.

Chris said: 'Because the practice's ability to treat patients is dependent on a constant supply of sterilised instruments, a degree of redundancy is essential in any LDU so that work can continue even if one of its parts goes down.'

#### Storage and re-use of instruments

Following sterilisation, instruments are pouched and transferred to the 'clean' side of the LDU room, where they are stored until needed.

Chris's practice is designed with all equipment and consumable items kept centrally, so that minimal stock is held in the surgeries. Items needed for treatment are loaded into mobile carts and brought into the appropriate surgery at the beginning of each session.

#### One year on

Speaking to Chris a year after his practice opened, I found that he was very happy with the LDU and its overall place in the workflow of the practice.

He said: 'Cross-infection control is very important, but not exactly the most exciting thing in our practices.'

'The solutions that we implemented with the assistance of Schottlander and Optident not only ensure that we have a state-of-the-art decontamination facility, but also mean we can offer a high level of assurance to patients and practice staff that they are fully protected from the risks associated with cross infection.'

'It is even better that the daily running of the equipment is so simple that we can be sure of ideal decontamination and sterilisation without it being overly intrusive in our main job of treating patients.'

The Sci Can products referred to in this article are available from Optident Ltd, International Development Centre, Valley Drive, Ilkley, LS29 8AL. Call 01943 605050, email sales@optident.co.uk or visit www.optident.co.uk. Benches and mobile carts from Schottlander's Erio range are available at www.schottlander.co.uk. Details of the courses offered by Advanced Dental Seminars can be found at www.advanceddentalseminars.com.