Dr David Bloom and Dr Jay Padayachay offer their advice on the best equipment to use for cross-infection control

1. Central sterilisation area (Fig.1, 2) – it will eventually come into force that all practices must have a central sterilisation area away from the surgery itself. Such areas need to be thought through so that there is a flow from the ‘dirty’ or non-sterile area to the ‘clean’ or sterile area. So, from the sink into which the instruments are initially placed, to the autoclave where the bagged instruments are sterilised, protocols need to be created so that the chain is not interfered with and non-sterile comes into contact with sterile. To aid this, differential lighting can be used so that the non-sterile areas are lighted with a red bulb, and the sterile areas have a green bulb.

2. Ultrasonic bath – the instruments should be placed into an ultrasonic bath for 15 minutes to loosen any debris, for example, instruments are not scrubbed manually at this stage which thus reduces the risk of injury to the nurse.

3. Washer-disinfector (WD) (Fig.3). These are great for removing any remaining debris from the instruments prior to them being bagged for the autoclave. While discretionary at the moment, the Care Quality Commission will be aiming to register all healthcare facilities including dental practices (NHS and Private) within the next two years. Implementation of washer disinfectors will come into force over the next three years and will replace ultrasonic baths. Once out of the WD, the instruments should be visually checked and only then scrubbed or brush to remove any remaining debris (usually cement) prior to bagging.

4. Handpiece cleaner (Fig.4). Where a handpiece manufacturer does not recommend a washer-disinfector for cleaning the handpiece, use of a dedicated handpiece-cleaning machine may be considered. Not only does this clean out the handpiece prior to sterilisation, it also lubricates it to the ideal. This will also prolong the life of the equipment as well. Fixtures are available for high-speed as well as straight contra-angle electro-motor handpieces. This uses a pressurised system to clean and lubricate handpieces and each cycle is less than two minutes. However, unlike a washer-disinfector, it does not disinfect.

5. Autoclave (Fig.5). The two types of sterilisers found in General Dental Practice are the vacuum (wrapped instrument) sterilisers (classified as Type B) and un wrapped instrument and utensil sterilisers (classified as Type N).

Vacuum Benchtop Sterilisers Type B are suitable for wrapped and unwrapped solid items, hollow items and porous loads, and as such are particularly suitable for sterilising dental handpieces and this technology is increasingly becoming the standard for use in dental practice. Wrapped items processed in a vacuum benchtop sterilizer can be readily transported, remain sterile up...
to point of use, and can be stored for use at a later date, minimising the risk of cross contamination. The provision of suitable stocks of wrapped steriliser instruments can enable continued patient care while WD, steriliser and water treatment plant are unavailable through repair, maintenance, and testing.

Benchtop Sterilizers Type N are suitable for solid devices that are not wrapped. Provided that the proper irrigation and cleaning of lumens and internals of handpieces has been achieved in combination with a WD, handpieces may also be processed in a Type N steriliser. Where remaining hollow items used in the practice are not single-use, a Type N steriliser may be the appropriate solution, although as mentioned previously, this type of technology is being increasingly overtaken with the vacuum type steriliser. Dental practitioners should also be aware that instruments processed in a Type N steriliser should ideally be used directly from the steriliser as transportation and storage of sterilised items may pose a risk of re-contamination, and should be risk assessed and controlled to minimise the risk.

6. Disposable items. These are useful when it is not practical to sterilise. Examples include three-in-one tips (we have found the Kerr tips to have no water contamination compared to some others), and can include burs, cups, aspirator tips and saliva ejectors. The list is potentially endless as there are now even disposable handpieces and a risk/cost analysis should be undertaken.

7. CollarDam (Fig.6). With the move to disposables, CollarDam provides the missing link when it comes to bibs. Traditional plastic bibs that are wiped down between patients are no longer acceptable. Thus disposable bibs with daisy chains have now come into use, but remember that if doing this the chain also needs to be autoclaved. This is fine if the chain is made from metal but not so if it is plastic. CollarDam uses an adhesive strip avoiding the need for such chains, and the premier version of it has a built on head cover avoiding the need for a separate one. The everyday bib doesn’t have this useful function but all types prevent water seep-age at the neck preventing patients getting wet in this area.

8. Handwashes. The use of alcohol-based handwashes can dry and irritate the skin with prolonged use. Continu alcohol
 RECORDS FOR EXCELLENCE
OCCLUSAL REGISTRATION AND BLUEPRINTS TO SUCCESS
25-26 APRIL 2009

CO-OP.R8 Seminars Proudly Presents:

William “Bo” Bruce, DMD
David R. Newkirk, DDS

“What MUST I have to treatment plan aesthetic cases?”

This hands-on course is designed to answer that question. Knowing how to prep and cement veneers is not enough to go forward with a comprehensive case. We must know what information and materials we need to put the puzzle together.

This course will give you the blueprints to any complex case in a simple and understandable way. You will learn not only the aesthetic requirements but also the functional necessities to the perfect case. Not required, but would be a real bonus if your dental assistant could attend with you.

This is a must take course for any dentist wanting to do more complex aesthetic and/or functional cases.

14 hours of CPD

This two day Hands on masterclass will be held at the prestigious Senova Dental Studios, Watford, Hertfordshire on Saturday 25th and Sunday 26th April 2009.

Book early to avoid disappointment for just £995 plus VAT.

To secure your place please contact info@coopr8.com tel: 01923 655404

Dr David Bloom

a graduate of the Newcastle-upon-Tyne Dental School, has been a principle at Senova Dental Studios since 1998 focusing on comprehensive restorative and cosmetic dentistry. A past president of the British Academy of Cosmetic Dentistry (2007-2008), David is also an accredited member of the BACD. He is a member of The British Society of Occlusal Studies, The British Society of Restorative Dentistry, The British Dental Association and is a sustaining member of The American Academy of Cosmetic Dentistry (AADC). He is also a fellow of the International Academy of Dental Facial Aesthetics. David is on the editorial board of the journal of Cosmetic Dentistry – the official journal of the American Academy of Cosmetic Dentistry, and clinical director of CO-OP.R8 seminars and instructs many forms of dental treatment.

Dr Jay Padayachay,
a graduate of the Newcastle-upon-Tyne Dental School since 1998 focusing on comprehensive restorative and cosmetic dentistry. A full member of the British Academy of Cosmetic Dentistry, he is a member of The British Society for Occlusal Studies, The British Society of Restorative Dentistry, The Pankey Association, The British Society of Periodontology and the American Academy of Cosmetic Dentistry of which he is a sustaining member. He is also a director of CO-OP.R8 seminars and lectures in all aspects of cosmetic dentistry in the UK and the U.S. (www.coopr8.com).

About the author

Fig. 6: CollarDam everyday

Fig. 7: spitoonless chair and rear delivery system

The products mentioned in this article are the ones used on a daily basis by the authors and other than CollarDam, for which they are company directors, they receive no financial incentives for their use or promotion.