



Prestige Medical

## cleaning of instruments

Prior to sterilizing instruments in an autoclave it is important to clean them thoroughly to remove all blood, mucous and tissue deposits from the equipment. Failure to do this can mean that the steam is unable to penetrate to all surfaces of the instruments and therefore make effective sterilization impossible.

Before any cleaning tasks are undertaken ensure that any member of staff who is cleaning the equipment is properly trained and protected. Gloves and a plastic apron should be worn and, if splashes are a risk, a face visor or goggles.

Because they provide more consistent results and are more effective, the preferred method of removing soil or detritus from instruments prior to autoclaving is in a washer disinfector. Cleaning comprises several stages of powerful water and detergent spray followed by a hot water rinse where the temperature is raised to between 80-90°C ensuring that all micro-organisms except bacterial spores, some heat resistant viruses and cryptosporidium are inactivated.

Washer disinfectors are ideal for use with reusable instruments that are resilient enough to withstand powerful water jet cleaning, and moist heat temperatures of around 90°C. The advantages of a washer disinfector are clear: The process is fully automated, requiring less handling and manual cleaning, has reliable disinfection capability, and above all is safe to use for the operator, significantly reducing the risk of injury and infection from sharps or needles. Washer disinfectors should not be considered an alternative to sterilization.

### Note:

*If you intend to process hollow instruments where water penetration will be difficult it is important to ensure that your washer disinfector has suitable adaptors, which will enable water to penetrate the*

*more difficult areas, such as inside the lumens. It is also worth remembering that a washer disinfector is not suitable for loads of a porous nature.*

Where a washer disinfector is inappropriate or the correct adaptors are not available an alternative method of cleaning is an ultrasonic bath with a suitable enzyme detergent cleaner. Ultrasonic cleaners are not designed to kill microbes but will remove debris from inside the instrument, although all lumens should be irrigated during cleaning using a suitable irrigation pump to ensure that all dislodged organic matter has been removed.

Correct use of an ultrasonic cleaner requires that instruments be rinsed thoroughly after treatment to remove any detergent residue, as residual detergent can mix with the steam in an autoclave and create foaming which will severely inhibit the sterilization process.

The cleaning of used items, including those not required for immediate use, will greatly reduce the contamination risk although, depending on the risk category and method of cleaning of the used instruments, a second process, either disinfection or sterilization should be performed. Instruments should be rinsed, dried and thoroughly checked for damage, or loose joints prior to further use or storage.

*Suitable washer disinfectors should conform to EN15833 and HTM2030 (UK), the medical devices directive (93/42/EEC) and be CE marked. They should also have WRAS water approval.*

*Suitable ultrasonic cleaners should be CE marked and conform to BSEN161010.*

infection control fact sheet 30