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instrument washers the facts

infection control fact sheet

To ensure an efficient sterilization process it is crucial that instruments are cleaned thoroughly, particularly instruments with hollows or lumens, as debris collected here will seriously impair the sterilization process.

There are several ways to clean instruments:

- Manually, the traditional soak and scrub method. Hand washing of instruments can be hazardous to the operator, and should only be undertaken when other mechanical methods are unavailable or inappropriate. Suitable disinfection solutions should always be employed.
- Ultrasonic Cleaner. Used correctly, there is no disinfection process. When used in conjunction with manual cleaning, the results are better but still not very effective.
- Washer disinfectant. The preferred method of cleaning and disinfecting your instrument.

In the UK the BDA and MHRA recommend the use of 'thermal' washer disinfectors the use of chemicals can be harmful both to the instruments, which may degrade over time, and to the operators.

There are a number of benefits to using a washer disinfectant:

- Validatable, the effectiveness of the cycle can be demonstrated using proven techniques.
- Recordable, a printer or datalogger can be attached to the unit providing proof of a successful process
- Repeatable, correctly maintained and loaded the results are consistent
- Minimal human contact, reducing the likelihood of needle stick and other injuries, leaving staff available to perform other important duties.

A typical thermal washer disinfection cycle will consist of:

- A rinse stage, where the instruments are continually sprayed with clean water
- Followed by a wash stage, with a solution of water and detergent
- A thermal disinfection stage, where the temperature will be raised to between 80°C and 90°C*
- Finally a drying stage, ensuring water droplets are removed from the instrument allowing immediate preparation for sterilization.

**HTM2030 requires a minimum 80°C for 1 minute, however EN15883 indicates that 90°C for 1 minute (Ao 600) is preferred.*

When purchasing a washer disinfectant it should:

- Have an entry port for the installation of thermocouples for testing.
- Be possible to attach a printer or datalogger without difficulty.
- Have a stainless steel chamber.
- Have removable, cleanable, spray arms and nozzles
- Have a suitable door interlock
- Measure the detergent dose and ensure repeatability. The cycle should not commence if there is insufficient detergent.
- Indicate faults on the front panel
- Have a cycle with an A0 value of 600

A washer disinfectant that fully meets the new European standard EN15883 or HTM2030 in the UK will exceed the above criteria, giving assurance that it can be validated in accordance with recognised protocols.