



Dental Nurse Network
Professional growth for dental nurses

Level 2 Certificate: Infection Prevention and Control (IPC) Lead Module 2

Presented by Chelsea Foster RDN.

Module 2 Aim

Aim:

To gain further knowledge on the processing of instruments



Module 2 Objectives

Objectives

By the end of the module, students will be able to:

- Describe in detail the correct sterilisation process;
- Explain how to complete manual sterilisation;
- Demonstrate understanding of how to use the ultrasonic bath and washer disinfectant;



Module 2 Objectives

Objectives Continued

- Explain the process of bagging instruments effectively, working towards best practice;
- State how to correctly store instruments;
- Demonstrate the knowledge to set up a decontamination room;
- Create an Implementation and Improvements Plan.



Sterilization Process

All clinical members of staff should be aware of this.



Sterilization Process

Three ways of cleaning reusable dental instruments are:


- Washer Disinfector
- Manual cleaning combined with ultrasonic cleaning
- Manual Cleaning

Effectively cleaning before sterilization reduces the risk of transmitting diseases





Sterilization Process

- When manual cleaning avoid using this as the only way of cleaning instruments
- Manual cleaning is preferably only used for emergencies



Sterilization Process






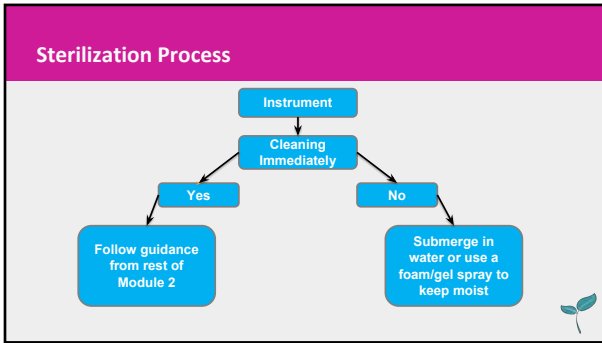
Sterilization Process

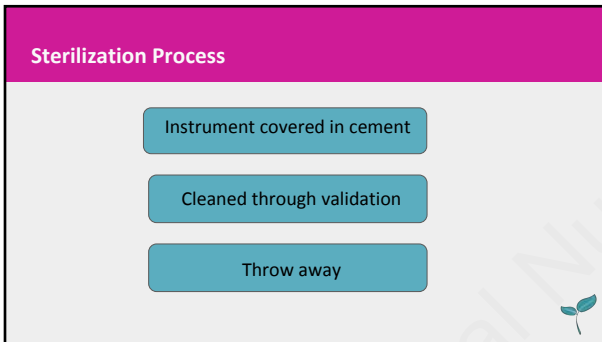
Validation:

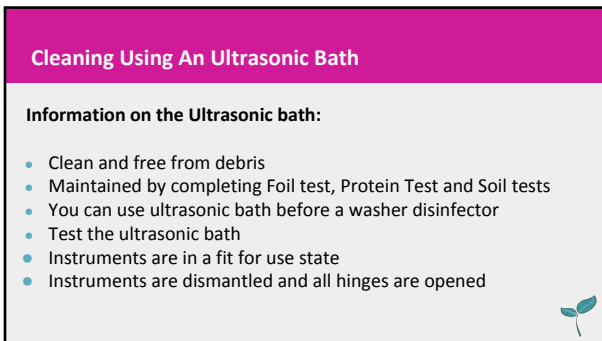
‘When the entire process is verified, tested and documented’

All instruments should be cleaned using a validated process such as washer disinfectant or ultrasonic bath.



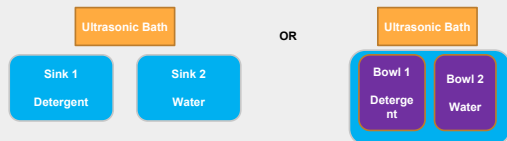






Cleaning Using An Ultrasonic Bath

You need to use two sinks during or 2 separate bowls



Cleaning Using An Ultrasonic Bath

- Place all reusable instruments in cold water with detergent
- Leave to soak for a few minutes
- Handpieces are not to be submerged in water




Process

- Place in basket ensuring they are submerged, not overloaded or overlapped
- Never be place on the floor of the bath




Process Continued

- Close the lid to the bath and apply the timer
- Remove the basket and allow to drain




Process Continued

- Inspect the instruments under a magnifying
- If debris present the cycle should be repeated
- If free from debris they should be dried with a non lint cloth



Cleaning Using An Ultrasonic Bath

- Put through the steriliser as soon as possible to avoid air-drying



Ultrasonic Bath Errors

Common errors with Ultrasonic baths:

- Sound - when the vibrating plate fails the noises will change.
- Hot after 1 or 2 cycles



Protein Test

- Keep a record to prove completion
- If you have a washer disinfectant this test should also be completed on that machine and recorded separately.
- As stated in HTM 01-05 this test is to be completed weekly by the user, quarterly and yearly by a competent person or engineer.



How To Complete The Protein Test

3m Clean-Trace Protein Test

- Remove the swab and dampen with distilled water.
- Swab the instrument (tweezers, mouth mirror, scissors, XLA Forceps)



How To Complete The Protein Test

- Place the pen back into the tube and press down so the bud end enters the fluid
- Collect your incubator and select the time and temperature.(55 degrees for 15 mins)
- When the incubator has reached the temperature a light will appear saying ' Insert Test' Place the 3M pen in and press start.



How To Complete The Protein Test

- When the cycle has finished and the light says ' Finished' you can remove the pen and check the colour of the swab.
- If your test is green this is a pass, if However, it is purple or grey this is a fail
- All details should be recorded on the correct form and the test can be disregarded.



When a Test Fails

Methods of Cleaning

- Check that you haven't changed the detergent but not changed the level of dosage
- Have the instruments been over handled during testing
- The machine may in fact be broken and you may be required to contact an engineer to look at it



When The Test Fails

Methods of testing

- Has the test past its expiry date
- How was the swab moistened (Tap water should never be used
- Gloves should always be worn when completing the test as this reduces the amount of contamination



Soil Test

- Quarterly and yearly basis by a competent person or engineer
- Manufacturer may state a weekly or monthly basis by the user.



How To Complete A Soil Test

- Place the Test Strip into the holder
- Place the holder into the machine
- Start a routine cycle



How To Complete A Soil Test

- Inspect the test strip to see if the artificial soil has been removed
- If this fails you will need to re test and then enquire further assistance from an engineer.



Cleaning With A Washer Disinfector

A washer disinfector is designed to carry out the process of cleaning and disinfection. It uses 5 different stages to do this

- Flush
- Wash
- Rinse
- Thermal disinfection
- Drying



How To Use The Washer Disinfector

- Load the machine
- Open all hinges and joints
- Attach instruments to the irrigation system correctly were required
- Inspect the instruments for wear or damage prior to sterilization



Handpiece Maintenance

Kavo have suggested the following method to cleaning handpieces.

- Flush water through the handpiece for 20 seconds before removing it from the chair
- Remove the burr
- Place handpiece under running water and scrub with a long handled brush to remove all debris. Do not submerge in water!



Handpiece Maintenance

- Remove head from attachment if applicable
- Place into the lubricating nozzle and wrap a disposable cloth around the end to stop spray
- Purge the lubricant through the handpiece for 2 seconds until it is visibly expelled through the body



Handpiece Maintenance

- Connect the handpiece to an air source and purge for 30 seconds or alternatively leave to stand upright on a hand piece base to allow excess lubricant to drip
- Wipe away any excessive lubricant
- Place in the steriliser at 134 for 3 minutes



Manual Cleaning Process

- Dirty to clean workflow to be maintained
- Two sinks or two bowls to be used one for cleaning and one for rinsing
- Separate setting down area for dirty instruments and for clean instruments



HTM 01-05 Protocol

Protocol for the manual cleaning of dental instruments

(All personnel involved in the decontamination of dental instruments should be trained in the correct use and application of this protocol and associated guidelines.)

No instrument should be processed until it has been thoroughly cleaned. The following steps should be followed at all times.

- Wash hands
- Wear personal protective clothing (PPE)
- Prepare instruments and arrange them in order
- Disassemble and open the instruments as appropriate, ready for cleaning
- Fill the clean water (50°C) with handbrushes with the appropriate volume of water and detergent (specified for the purpose). (Note: some correct composition is recommended by the detergent manufacturer's instructions.)
- Fully immerse the instruments in the solution and keep under water during the cleaning process to prevent airlocks
- Agitate the instruments using long handled brushes with soft plastic bristles
- Check any loose cleaning solution prior to rinsing
- Rinse in a second sink with softwater (preferably distilled or RO water)
- Allow drying, then and the if instruments are to be wrapped
- Thoroughly inspect all items under an illuminated magnifying viewing light for clean, functional and in good condition
- Label and any relevant items prior to sterilisation with a non-cell based label
- Dispose of cleaning materials safely in accordance with local policy
- Repeat cleaning solution and the instrument after each use
- Complete any relevant documentation



Effectively Packaging Instruments

You should only be preparing the instruments for sterilisation after the following has been completed:


- Soaked prior to ultrasonic bath
- Ultrasonic bath/washer disinfectant or both
- Checked through a magnifying glass
- Dried using a non lint cloth



Effectively Packaging Instruments

Non Vacuum steriliser


- Place all instruments on a perforated tray
- Select a cycle on the steriliser that reaches 134 degrees for the holding time of 3.5 minutes at pressure 2.2
- Remove instruments from steriliser



Effectively Packaging Instruments

Non Vacuum steriliser


- Dry using a non linting cloth
- Clearly mark with the expiry date and users initials
- Sealed along the dotted line



Effectively Packaging Instruments

Vacuum steriliser

- Place an expiry date on the package of 1 year and your initials
- Dry and then pouch



Effectively Packaging Instruments

Vacuum steriliser

- Seal the sterilisation pouch along the dotted line
- Not overlapped or overloaded
- Select a wrapped cycle which will reach 134 degrees for 3.5 minutes with pressure bar of 2.2



Effectively Packaging Instruments




Effectively Packaging Instruments



Storing Instruments


Wrapped Instruments
Vacumed steriliser - 1 year
Non Vacuumed (Packed immediately after cycle) - 1 Year



Storing Instruments

Unwrapped in a Clinical Area - 1 Day


- Dry
- Protected from contamination
- Not stored on open work surfaces
- Instruments repossessed at the end of the working day



Storing Instruments


Unwrapped in a Non Clinical Area - 1 week

- Dry
- Protected from contamination
- Not stored on open work surfaces
- System in place to ensure instruments do not exceed storage time



Storage Area


- Strict rotation of stocks
- Easily cleanable cupboards used in conjunction with sealed pouches or covered/sealed trays
- Stored above floor level in a dry and cool environment
- Where possible the air flow should be from clean to dirty



Setting Up A Decontamination Area

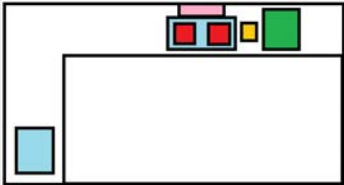
Decontamination process in surgery


- No manual washing
- Not to use the ultrasonic bath without a lid
- Not to open the decontamination equipment



Setting Up A Decontamination Area

Example 1- Decontamination in Surgery






Setting Up A Decontamination Area

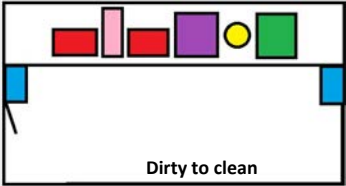
Two separate rooms

- One room for cleaning and inspecting
- One room for Inspection, sterilization and wrapping




Setting Up A Decontamination Area

Example for 1 Decontamination room

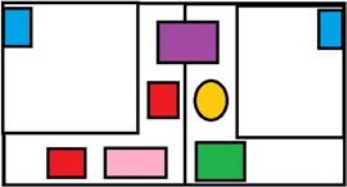


Optional Hand wash sink




Setting Up A Decontamination Area

Example of a Decontamination room over 2 rooms



Optional



Implementation And Improvement Plans

HTM 01-05 states that we must use a Improvements plan and also an Implementation plan to show how we will achieve best practice.

Improvements plan - Identify what we need to improve

Implementation plan - Explain how we can Implement the Improvement



Improvement Plan

Practice Name: Dental Nurse Network IPC Lead: Chelsea Foster Date completed: 10.10.18 Review Date: April 2019

Improvements Plan					
Serial Number	Date	Improvement identified and Reason	Room / Area	Review Date	Signature
001	10.10.18	Instrument Cleaning with a validated washer disinfectant	Decontamination room	April 2019	Clister
002	10.10.18	Separate Decontamination room with two sinks present and extra hand washing facilities	Old store room	October 2019	Clister
003	21.11.18	Separate instrument storage room	Not known	November 2019	Clister



Implementation Plan

Practice Name: Dental Nurse Network IPC Lead: Chelsea Foster Date completed: 10.10.18 Review Date: April 2019

Implementation Plan						
Serial Number	Date	Implementation required	Room / Area	Review Date	Date Completed	Signature
001	10.10.18	A washer disinfectant to be placed in a decontamination room. The cost is currently £2000. The practice does not have current funds to implement this.	Decontamination room	April 2019	N/A	Clister
002	10.10.18	Separate Decontamination room with two sinks present and extra hand washing facilities. The store room has the available space to complete this however the practice does not have the funds to fully comply with best practice. As the building is a listed building. A quote to be arranged for information at this time.	Old store room	October 2019	N/A	Clister

Summary


Sterilisation Process

Manual Sterilisation

Ultrasonic Bath and Washer-disinfector

Bagging and Storing of Instruments

Setting up a Decontamination Area



Dental Nurse Network