

 Infection Control Manual

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Aims, Scope and Definitions

Dentistry is a surgical profession. As a result there is exposure to bodily fluids, namely saliva and blood. Both of these fluids have the potential to carry infective quantities of many viruses, bacteria or fungal elements that can cause serious, and possibly life threatening diseases in a person exposed to these. Despite our medical history questionnaire asking about whether a patient has these diseases, often a patient is simply unaware themselves, or may not answer truthfully in fear of not receiving treatment. It is therefore necessary to adopt ***universal precautions*.** That is to assume that every patient we see is a potential source of infection. Our aim is to reduce the risk of ***cross infection*** to as near as practical to zero. In the context of our practice, cross infection means the introduction of bacteria, viruses or fungal elements from one or more persons in the practice to one or more other persons in the practice. This can be either directly from person to person or through contaminated instruments and the persons involved can be members of staff, patients, dental technicians, repair persons or visitors. ***Infection control*** is the series of steps and procedures we take to ensure that cross infection does not occur. The ***chain of asepsis*** involves ensuring that every procedure along the way to infection control is carried out thoroughly so that the next procedure along the way will also be effective. Like any chain, one break in the links and the whole chain is weakened and ineffective.

At all stages in our practice we must ask ourselves if we would be happy for ourselves or relations to be the next person in the dental chair. Diligence and attention to detail must be absolute at all times.

# Education and Training

Employees will be provided with comprehensive training in the full range of infection control procedures. Refresher courses will be available for the continuation of education to ensure infection control measures used in the practice are being complied with and understood. These will be offered to employees but funded by the employee.

*Note- some procedures and protocols in this manual may not be relevant for some practices. Please include your practice policies and procedures that relate to your equipment and sterilisers*

# Personal Protective Equipment

**Gloves**

Gloves are to be worn whenever there is a risk of exposure to blood or body substances. Hands are washed before and after the use of gloves or when gloves are changed. The alcohol-based hand rinses may be used at this point, providing hands are not visibly soiled. Gloves are never to be washed or re-used.

Gloves are used when:

* Assisting
* Decontaminating
* Disinfecting
* Preparing instruments for sterilization
* Housekeeping duties

Change gloves:

* Between every patient
* When getting medicaments, etc. from cupboards and drawers that can’t be retrieved by transfer tweezers
* When leaving the surgery during a procedures
* As soon as possible if damaged, punctured or torn.
* Before and after decontaminating the surgery

The practice provides the following gloves:

* Latex
* Latex Free blue nitrile
* Heavy Duty Nitrile

**Latex Allergies**

All suspected latex allergies are taken seriously by this practice. All patient medical histories and new dental staff employment forms included questions about sensitivity or allergy to latex/rubber products.

If a latex allergy is suspected or proven, a latex free environment is available for those persons affected. The practice provides a selection of latex free gloves and non-latex rubber dam.

**Protective Eyewear**

The practitioner, clinical coordinator and patient wear protective eyewear during all clinical procedures to protect the eyes from a broad range of hazards. Suitable eyewear is provided by the practice in the form of protective glasses or full face visors.

Technique:

* Protective eyewear is placed on the patient unless the patient is already wearing suitable eyewear
* Spectacles for vision do not provided sufficient protection so offer protective eyewear

Cleaning:

* Wipe and clean with a mild detergent and water

**Masks**

Large quantities of aerosols can be generated during dental procedures and may be contaminated with bacteria, fungi and viruses. Surgical masks for dental use must be worn at all times when treating patients and decontamination.

Technique:

* Place masks on first, before placing eyewear and donning gloves
* Masks are to be adapted to the bridge of the nose and then looped over ears
* Cover both the mouth and the nose and fully cover the chin/upper neck
* Remove by touching loops only
* Are to be disposed after every patient
* Must not be touched by the hands whilst being worn
* Masks should not be worn around the neck, but removed and discarded

**Personal Grooming**

* Hair must be tied back
* Fingernails short (to prevent glove perforation). No artificial nails as these can harbor micro-organisms
* Minimal jewelry- nothing below the elbow
* Any open wounds on the hands or arms must be covered with a waterproof dressing. Consult with senior management if you have any large abrasions or weeping wounds in these areas.

**Clinical Attire**

Any procedure that involves blood or saliva dictates the wearing of clinical barriers to cross infection. In all practice’s the following is provided and must be worn:

* **Protective aprons** are to be worn at all times in the sterilisation area when processing contaminated instruments
* **Enclosed Leather shoes** must also be worn for protection from injury or contact with sharp objects and spill
* **Food and drink** must not be consumed while clinic attire is worn (nor must food or drink ever be consumed in the operatories, sterilizing areas or offices)

# Hand Hygiene

## Routine Hand Washing

Hand washing is a simple and effective first defence against cross infection. This includes:

* Washing hands with water and soap
* Applying a alcohol-based hand rub (AHBR)
* The practice provides both soap and alcohol based hand rub (ABHR). All staff are to undergo hand hygiene training found at the Hand Hygiene Australia Website during their induction and reviewed during their annual performance review.

Indications:

* Use alcohol-based hand rub for all clinical situations where hands are visibly clean
* Wash with soap and water when visibly dirty or contaminated

Situations

* When entering and leaving clinical or sterilising areas, the toilets and before eating or drinking
* Always prior to putting on gloves and immediately after removing gloves

Technique

* Any hand washing must be for a minimum of fifteen seconds (soap and ABHR) and in a clinical situation must include the forearms. This is distinct from surgical scrubbing which is a five or three-minute procedure.
* Hands are patted dry with single use paper towels

## Surgical hand washing

A surgical hand wash is required when undertaking surgical procedures in the surgery, such as implant surgery.

* A 5 minute scrub is undertaken as the first scrub of the day (includes cleaning fingernails)
* Subsequent scrubs of 3 minutes during are undertaken between cases (omit the fingernails)
* Hands are kept higher than elbows at all times to allow water to run in one direction only – from clean to dirty (hands to elbows)
* Arms are washed in a circular motion, from the hands to the elbows without returning to the hands

**Procedure: 1st Scrub of the Day (5 minutes)**

Put on face mask, glasses and hat before hand scrub

Step 1: Duration 1 minute

* Open a BD E-Z Surgical Scrub 747 4% W/V Chlorhexidine Gluconate Solution.
* Rinse hands and arms and wash with sponge side to ensure adequate skin coverage to 2.5cm above the elbow and contact time with soap
* With hands under gently running water, use nail cleaner to remove debris from underneath fingernail. Leave soap on forearms while cleaning fingernails.
* When finished, discard nail cleaner

Step 2: Duration 2 minutes

* Use sponge side and continue cleaning fingernails
* Use sponge side and wash all surfaces of hands and forearms working from nail beds and between fingers before proceeding to wash forearms (to level of elbow) using circular hand motions. On completion, rinse hands and forearms

Step 3: Duration 2 minutes

* Hands and forearms are washed again but stop at mid forearms
* Rinse hands and forearms thoroughly
* Grasp sterile towel by one corner being careful and allow towel to unfold. Use one half of the towel to pat dry hands then move down to forearm without returning to the hand. The opposite side of the towel is used for the other hand/forearm.
* Drop towel in appropriate container and leave hands above waist level at all times
* Gown and use Surgical gloves

\*ACORN Standards 2013

# Immunisation

**All** members of staff are expected to be vaccinated, for their own safety against the following routine diseases for which simple vaccines are available.

* dTpa (Adult formulation Diphtheria, Tetanus, Acellular Pertussis (Whooping cough)
* Hepatitis B
* Hepatitis A (as required)
* MMR (Measles, Mumps, Rubella)
* Varicella (Chicken pox)
* Influenza
* Tuberculosis (TB)
* Tuberculosis BCH (as required)
* COVID-19

Vaccination and boosters as required for *Hepatitis B* are a requirement of the practice. 'Flu' vaccination and Covid 19 vaccination is recommended, but not compulsory. Vaccinations are a preferred requirement for employment and are to be funded by the employee. All employees of the practice should know their own health status in regard to blood borne viral infections.

Should you choose not to be immunised on any of the above, you will be required to sign a waiver form.

Immunisation records are to be regularly updated for all staff during their period of employment, and noted on the Staff Immunisation Register.

# Definition of Areas in the Operatory

Whilst in the operatory we can divide the working areas into various areas.

**Sterile Areas**

Are those areas where only sterile materials may be placed or where non-sterile areas have been covered with a sterile drape or a cover. This may involve surgical drapes used during surgery or the bracket tray when prepared for a sterile procedure. Once any material enters this zone the area is not sterile.

**Clean Areas**

Are those that have not been exposed to potential pathogens. For example, writing areas and inside drawers and cupboards. These areas must not be exposed to any pathogens, as they are not decontaminated between patients. The sink in the operatory is to be considered a clean zone and is for hand washing only.

**Dirty Areas**

Are those areas of contamination or our working areas. They are the areas that are contaminated either directly (through used instruments, etc) or indirectly (through aerosols generated in sufficient concentration to pose an infection risk). The sink in the sterilising room is a contaminated zone and meant for cleaning contaminated instruments.

# Setting up the Surgery

## First Patient of the Day

The following air and waterlines must be flushed for 2 minutes at the start of the day (a 30 second flush is required between patients):

* Handpieces
* Ultrasonics
* Air/water syringe

ADG consider disposable barriers to be the most effective way of limiting surface contamination. For each new patient any area of the operatory that may be potentially contaminated must be draped.

* Disposable barriers are obtained to cover headrest, clinical coordinators work area and any other surface that may be contaminated.
* Tear off squares of statically adhesive plastic cover the light and bracket tray handles, X-ray timer switches (unless un-gloved) and any non-sterilisable handles.
* Proprietary custom barriers or plastic drapes are used to cover handpiece hoses, suction lines, curing lights and their tips, intra oral video camera handpieces, X-ray unit heads and X-ray sensors
* It is up to the clinical coordinator to decide how to cover any other item not described that may be potentially contaminated. If in doubt ask the practice principal or senior management.
* A preference lies in our practice for disposables where practical. Rinse cups, HVE tips, impression trays and routine high and low speed burs fall into this category and should be put out prior to the procedure if their use is anticipated.
* Likewise any materials which will be used should be pre-dispensed if possible or at the least be placed in the working area of the dental assistant ready for use. After draping, the instrument set-ups are brought to the operatory and placed where appropriate. It is reassuring to the patient to see the instrument kits opened before them and the handpieces attached once the patient is seated.
* It is important to ensure that only items required for treatment are on the bench tops and any unessential equipment or material is put away. Items left out unnecessarily may be exposed to contamination through aerosols generated during the procedure.

## Treating the Patient

* Once seated and given disinfected safety glasses and a bib, patients are asked to rinse Twice with chlorhexidine Mouth rinse, which is given in a cup before treatment begins. This will significantly decrease the numbers of viable microorganisms in the mouth.
* Open the patients chart
* Input the steri tracking information sourced from the sterilisation packs opened for the patient appointment
* The ideal scenario from here on is that all the required materials, etc are on hand. However, from time to time other materials may be required. Should a material be in an operatory drawer, a separate pair of sterile tweezers is to be used with gloved hands or else de-glove and wash hands. If the required item is outside the room, de-glove, wash your hands, obtain the item, rewash your hands in front of the patient and don new gloves. Alternatively, should a spare assistant be available they should be summoned to fetch the item (this is the first preference)
* If any item falls on the floor during treatment, push to the side with your foot and replace the instrument. .

# Considerations During Treatment

## Management of Sharps

Inappropriate handling of sharps, during and after treatment, is a major cause of penetrating injuries. It is essential all sharps must be handled and used with care and with techniques to minimise the risk of penetrating injuries.

Types of sharps

* Needles
* Matrix bands
* Wedges
* Burs
* Disposable triplex syringes and evacuator tips
* Scalpel blade
* Suture needle
* Scalers

Transfer of sharps

Sharp instruments such as needles and scalpels must never be passed by hand

Handling of needles

* Unopened needle and local anaesthetic cartridge(s) to be place on operator’s bracket
* Operator to assemble syringe and inject
* After injection, operator to remove needle with artery forceps and dispose of in the sharps container.
* Needles are not to be recapped
* Contaminated needles must never be bent or broken by hand
* Uncapped needles must not be left lying around

Disposal of sharps

* The following must be disposed of in the yellow biohazard labelled, puncture resistant containers located in each operatory and sterilisation room:
	+ Needles
	+ Local anaesthetic cartridges
	+ Burs
	+ Scalpel blades
	+ Orthodontic bands
	+ Endodontic files
	+ Other singe use sharp items
* When the container is ¾ full, the container is sealed and placed in the storeroom to await collection by Biohazard Waste collection agency.

## Computer Use During Treatment

Recording of information, both written and computerised, is sometimes necessary during treatment. Gloves must be removed and hands washed or waterless hand wash used before using any recording equipment (Eg. pens, mouse, keyboards, etc) to avoid cross contamination.

## Oral Surgery

Oral surgery is to be a sterile procedure.

* Place usual impervious barriers and cover with sterilisable drapes where instruments are to be placed.
* Instruments must not be held by the working tip
* Extra caution is needed, as there are more sharps present and maybe significant amounts of blood
* Single use sharps (i.e. needles) are disposed of immediately
* Items that will be reused on the same patient (scalpels and suture) are placed in a sterilised kidney bowl between uses and disposed of in the sharps container as soon as finished with
* If instruments cannot be cleaned immediately after use, make sure they are left to soak in cold water to prevent the blood from drying and caking onto the instruments
* If intravenous sedation is being used make sure the attending doctor is given a sharps container for sharps disposal.

## Nitrous Oxide Sedation

* Ensure that the controls of the RA unit are wrapped so the dentist can adjust the flowrate at any time
* The nasal hood assembly is sterilised (not bagged) and all other rubber goods are wiped down with neutral detergent

# Surgery Decontamination

**Changeover Between Patients**

* Flush handpiece and triple syringe line for 20-30 seconds into high velocity evacuator
* Flush suction with one cup of water
* Remove all disposables and rubbish from the instrument tray and working areas and dispose of in the bin
* Remove all drapes and covers being careful not to touch the underlying surface with any contaminated object. Place in the bin.
* Remove HVE tip and place it in the bin
* Remove the triple syringe tip (not disposable) and place in tray
* Take care with any sharp disposables (preferably handling them with tweezers) and place them immediately into the sharps container
* Take all instruments to sterilisation room. Remove gloves, wash hands.
* Return to the operatory, re-glove and begin the decontamination procedures using detergent based wipes.
* Always remember when damp dusting, cleaning or decontaminating, work from ‘high to low’ and ‘clean to dirty’.
	+ Environment cleaning with a neutral detergent- e.g Clinicare
	+ Clinical coordinators bench
	+ X-ray unit
	+ Light handles and switch
	+ Chair: headrest, back, then arms
	+ Bracket
	+ Bracket handle
	+ Chair control
	+ Triple syringe and tubing
	+ Handpieces motors and tubing
	+ Ultrasonic scaler and tubing
	+ Suction, suction hose and housing
	+ Spittoon, swabbing from outside to inside
* Have a good look around and if all is in order, remove your gloves, wash your hands well and commence preparing the room for the next patient. Theoretically this can be done with ungloved hands if you have done your job well. However you should don new gloves should you be sensitive to the detergent or have wounds on your hands. These gloves are removed prior to bringing in the patient and again normal gloving then applies .
* Set up for new patient

**Surgery Set Up**

Follow protocol as for ‘First Patient of the Day’.

# Cleaning Protocols

Routine cleaning of the dental surgery is necessary to maintain a safe environment because deposits of dust, soil and microbes on environmental surfaces can transmit infection.

**Surgery Cleaning Protocol – End of the Day**

**Ensure Full PPE is worn at all times**

* Empty amalgam trap
* Bring the chair up
* Run recommended manufacturer’s cleaning solution through suction hoses and spittoon

Use Disinfectant to wipe:

* Clinical Coordinators bench
* Xray unit
* Light handles, switch and cover
* Bracket and bracket handle
* Hand operated chair controls
* Hand piece couplings and whole length of tubing
* Triple syringe and whole length of tubing
* Ultrasonic scaler handpiece and whole length of tubing
* Suction, whole of suction hose and housing
* Spittoon, swabbing from outside to inside

Remove gloves, wash hands, re-glove with new gloves. Use disinfectant to damp dust the chair, high to low, clean to dirty:

* Light arm
* Arms for bracket, spittoon and suction
* Back of chair
* Operator’s chair
* Clinical coordinators chair
* Headrest, backrest, arms and length of chair
* Cupboards and benches
* Wipe around sink, wipe out sink

Remove gloves, wash hands, re-glove with new gloves.

* Wipe floor with cotton mop
* Wash floors
* Empty bins

**Surgery Cleaning Protocol –**

As above,

* End of the week. Surgery filter - remove to steri room to be cleaned by clinical coordinator,, placing any loose debris in bin

**Steriliser and Distilled Water Cleaning**

For the staff rostered on the evening before the first Friday of the month, the following procedures must be completed:

* A water residue cleaning solution is left overnight in the water distillers for de-scaling and charcoal filters replaced. Charcoal filters should be rinsed before placing in container to remove any black dust.
* Steriliser water reservoir is to be bleached overnight
* End of the month- Filter to be clean on the main suction unit

**Cleaning of the Practice Premises**

A professional cleaner may be employed to clean throughout the practice, upon seeking approval from senior management. If this does not occur, staff must be rostered to ensure this is done.

# Sterilisation Room

**Note: ‘Autoclaves’ are now known as ‘Portable Bench Top Steam Sterilisers”**

**This practice will use the abbreviation ‘Steriliser’ in its place throughout this document.**

Full PPE “***must be worn at all times***” when handling any instruments on the contaminated side of the sterilisation room. This includes loading instruments into the Sterilisers.

* Masks – Earloop type
* Protective eye wear/shields
* Heavy duty Gloves
* Aprons

**Sterilisation**: is the process which destroys all forms of micro-organisms, including spores.

Instruments for sterilisation are classified depending on the task they perform into 3 groups:

1. Critical
2. Semi-critical
3. Non-critical

Critical items must be sterilised. These items have come into direct contact with or penetrate soft tissue, mucous membranes, blood, bone, saliva and other body fluids. All instruments associated with restorative treatment; including burs, amalgam carriers, surgical instruments, syringes, handpieces, periodontal and endodontic instruments come under this category.

Semi-critical items must be sterilised. These items do not penetrate soft tissue, mucous membranes or bone, but do come in contact with them or body fluids. For example, mixing slabs, spatulas, dappins, curing light tips and impression trays.

Non-critical items may come into contact with unbroken skin and must be decontaminated with a high-level disinfectant. For example, patient safety eye wear, patient neck chains, work surfaces.

The sterilising room has been set up so that instruments flow from dirty to clean to sterile storage.

Any flow backwards is a break in the chain of asepsis and the procedure must be started again from scratch.

**Single Use Items**

In our practice, sterilisable instruments are selected whenever possible. If not, single use, disposable instruments are chosen which include:

* Needles
* Anaesthetic cartridges
* Sutures and suture needles
* Scalpel blades
* Routine high and slow speed burs
* Impression trays
* Matrix bands
* Endodontic files, reamers, lentulo spirals and broaches

## Setting Up the Sterilisation Room

**Full barrier attire must be worn when handling contaminated instruments.**

* Protective eye wear/shields
* Mask
* Apron
* Gloves

**Beginning of the Day**

* Ultrasonic
	+ Prepare ultrasonic
	+ De-gas
	+ Complete Pencil Load or Foil test and results recorded in log book
* Steriliser
	+ Vacuum testing performed in a cold and empty cycle and recorded in log book (Vacuum tests reveal whether sterilisers are running properly by highlighting any pump malfunctions and air leaks)
	+ Helix testing performed every day and recorded in log book (Helix Test measures the strength of steam penetration into the chamber.)
* Water distiller
	+ Fill
* Instruments counted
	+ Handpieces, Ultra sonic scalers, Triple syringes, or any other instruments that require to be accounted for, are counted and recorded in log book

**End of the Day**

* Ultrasonic
	+ Tank emptied, cleaned and left dry
	+ Filter cleaned and left dry

**Monthly Procedures**

* Water distillers need de-scaling
* Reservoir steriliser bottle to be bleached overnight

**Testing Portable Bench Top Steam Sterilisers (formally ‘autoclaves’)**

* Validation: done every 12 months or after the 6 monthly servicing and calibration by technicians

**Failures of Sterilisation Cycle**

Indications

* Negative readout
* Positive biological test
* Power failure
* Chemical indicator shows defect
* Bag damage or perforation

Any positive growth results during the validation process must be reported immediately to the practice Manager and that Steriliser cannot be used until the process is positive. Arrange for the service technician to be contacted.

\*Refer to Manufacturer’s Directions for the steriliser model your practice uses

**Cleaning, Packaging, Sterilisation, Disinfection and Storage**

On receipt of the trays, the clinical coordinator assigned to instrument management in the steri should:

* Inspect all the instruments for gross debris and ensure that they are all present and in correct order, remove any disposable items
* Wash debris off gross debris from instruments in a sink prefilled with warm water. using nail brush or long handled brush. Do not use hot water as it will coagulate proteins and increase difficulty in cleaning.
* Place in the rack of the ultrasonic cleaner
* Instruments are cleaned for 10 minutes(or to model manufacturers instructions) in the ultrasonic and then rinsed under hot water and left to drain then dried with a lint free cloth
* Drying must be completed as any residual moisture may impede sterilisation
* Instruments bagged in sealable sterilisation pouches, labelled for tracking, dated, and placed in the appropriate Steriliser programmed for wrapped articles. ( Refer to your practice Tracking Procedures)
* On completion of the sterilisation and drying cycles, remove tray and place on the rack to dry. (placing hot items on the stainless steel bench creates condensation inside the tray, allowing moisture to contaminate the instruments)
* Store in the appropriate storage area
* Any trays with dates greater than twelve months must be re-wrapped and sterilised again

**Dental Handpieces**

* Do not clean ultrasonically
* Carefully clean with a nailbrush and detergent and water
* Lubricate with the appropriate pressurized oil; Spray into a tissue in a gloved hand to minimize aerosol dispersion
* Clean off excessive oil with alcohol, bagged and placed on the Steriliser trays and placed in the Steriliser
* The oil spray must be regarded as contaminated so hand hygiene must take place after touching this before handling items higher up the chain of asepsis.

**Individual Invasive Instruments**

This includes surgical instruments, orthodontic pliers etc.

* Scrub if soiled with blood or debris as above
* Place in the ultrasonic cleaner for the required time, then remove
* Rinse with hot water, dry with a lint free cloth then place in Steriliser pouches and seal
* Barcode the items before sterilising
* Sterilise and store appropriately
* Instruments that are for immediate reuse need not be packaged but must still undergo a full Steriliser sterilising and drying cycle

**Ultrasonic Procedures**

* Items placed in the ultrasonic must be free from all visible debris before placing in the cleaner
* Instruments must be completely submerged in the fluid and the lid closed during operation to avoid dispersal of aerosols.
* No part of the operator’s fingers or hands is to be immersed in the fluid during the operation of the cleaner.

# Steriliser Tracking Procedures for Steri N Stock Tracking system

This practice has a comprehensive sterilisation process that includes a calibration, validation, physical, chemical and biological monitoring system. Records are maintained for each system.Tracking of “all” instruments in our practice is done through barcode recording.

Aim- Our Batch Control Identification protocol allows complete traceability for “all” instruments, linking instruments used on patients to a particular sterilising cycle allowing us to demonstrate instruments used on the patient have been through a particular cycle. Results from all cycles are recorded and filed for future reference.

The following are the guidelines to be followed when processing instruments for sterilising, use and storing of all instruments.

After the instruments have been through the ultrasonic:

* Reset trays / Bag instruments
* Seal and place a barcode on the plastic side of pouches and on top of trays, do not part load the Steriliser, wait until we have a full load.
* Remove 1 glove to use the computer and scanner
* Click on the “*Begin Cycle*” with un-gloved hand
* Enter or scan the barcode
* Select the item from the steri packet list and click “*Enter Packet*”
* Scan all instruments/trays in the batch
* Before clicking End Batch, use Contents Summary to ensure all items have been entered
* For the last packet click “*End Batch*”
* Turn on the Steriliser and log off the computer
* When finished click on “ *Finish Cycle*” and select the batch you want to complete
* If the cycle was successful( including visually checking for Moisture and package integrity ), tick the Yes box that the Cycle has been successful and enter the Steriliser cycle details from the Steriliser printout, printout then can be discarded.

**Using an Item**

When instruments are taken into the surgery:

* Open Patient’s chart
* Click on the relevant tracking Icon on the toolbar as per Dental Practice Program
* Enter the Barcode accordingly.

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# Management of Air and Water Lines

Most dental unit waterlines contain biofilm which acts as a reservoir of microbial contamination. Waterlines must be cleaned and disinfected as per the manufacturer’s instructions.

Air and waterlines from any device connected to the dental water system that enters the patients mouth (e.g. hand pieces, ultrasonic scalers and air/water syringes) must be flushed for a minimum of 2 minutes at the start of the day and for 30 secs between patients.

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# Handling of Prosthesis and Impressions

We have a responsibility to protect those outside our practice. All laboratory work or impressions are a potential source of infection and must be decontaminated. Again high-level disinfection is adequate. All impressions and laboratory work must, upon removal from the mouth, be rinsed well under cold running water. They are then sprayed with disinfectant and left for a minimum of 3 minutes before packaging and sending to the laboratory.

All impression materials and techniques employed have been selected for their tolerance to such chemicals. Lab work is then placed in the lab tray for collection or impressions sealed in a plastic bag for delivery as required. Denture adjustments are all to be carried out chairside using the infection control regimes of the operatory setting. Adjustment and polishing of dentures is by the use of sterilised acrylic trimmers and rubber polishing cones in a straight handpiece. More substantial polishing is to be sent to the commercial laboratory after decontamination as outlined above.

Between use, laboratory trays must be scrubbed clean in warm water with dishwashing detergent and, when dry, sprayed with disinfectant and left to dry.

# Equipment Maintenance and Repairs

Dental operatory chairs are serviced and repaired by an ADG approved company. Servicing records are recorded and filed in house and within the equipment maintenance list on Google Drive.

The Fixed Xray units and OPG machines are tested and serviced every 3 years by approved ADG source. The results are sent to the Radiological Council for Certification. All results are recorded /filed and certificates displayed in every surgery. Information also uploaded to GD.

Sterilisers are serviced every 6 months and validated every 12mths. Servicing records and results are recorded and filed.

Handpieces are posted to Support office and Serviced as required.

Main Suction unit filter is cleaned every 2-3 weeks and serviced every 12 months.

All other small equipment is serviced/maintained as required.

Any equipment sent for repair or presented for repair to a visiting equipment technician must be properly sterilised (and sealed in a plastic bag if to be freighted). Should sterilising not be possible (eg Curing lights) the equipment should be cleaned with a neutral detergent and sprayed with disinfectant as appropriate. A note should be included to tell the technicians what infection control steps have been taken.

# Radiography

Dental radiography is used in all practices. As different methods are used for radiography (eg, digital sensors, vista scan films etc) , please refer to the manufacturers advice on Infection Control with the use of the sensors and films.

X-Ray Holders are to be placed in the ultrasonic then Steriliser.

The X-Ray apparatus in the opertories is to have barriers so that the head and controls do not become contaminated.

# Accidents Involving Potentially Infectious Materials

The following protocol must be followed for:

* Penetrating injuries of the skin caused by sharps – dental instruments, needles, scalpel blades
* Direct skin contact with blood or saliva AND the skin is compromised (eg. Cut, open wound, abrasions, dermatitis)
* Bites or scratches from a patient
* Direct contact with blood or body fluids with the mucous membranes of the mouth, nose and eye

## Blood and Body Fluid Exposure Protocol

1. Stop work immediately
2. Allow wound to bleed
3. Wash the wound well with soap and lukewarm water or for eye exposure, flush your eye with copious amounts of saline/water. Do not squeeze the wound as there is no benefit. Do not apply disinfectants as some are irritants and retard healing. If contact lenses worn, remove after flushing eye and clean as usual
4. Cover with waterproof dressing, if necessary
5. Identify the source patient, if possible
6. If you consider that a specific infectious disease could have been transmitted by the incident, the Practice Principal or Senior Management will initiate the procedure in regards to patient screening
7. As soon as practical after the injury, document the incident on the *Preventing & Controlling Healthcare Associated Infection Incident Register* found on the server.
8. Immediately contact the:
	* ‘Needle stick hotline” on 1800 804 823
	* A&E Clinic at Perth Hospital on (08) 9224 2244
9. For needle stick/sharps injuries, a blood sample from your local GP must be taken as soon as possible after the incident, and blood samples from the source (ie the patient) wherever practicable.
10. To comply with work Health and Safety legislation, all exposure incidents require a 3 month follow up blood sample to be taken.

Further details on testing and follow up are found at the *ADA Guidelines for Infection Control 2012.*

## Blood Spillage

Within dental practice, it would be rare to spill any large amount of blood. However, any blood spill, however small, should be treated as if infectious. With nitrile gloves on, soak up the spill with paper towels and place them in a sealable plastic bag for disposal. Use paper towel to clean the area with neutral detergent. Wet the area with hypochlorite solution ('Milton's') and let dry.

# Disposal of Waste

**Amalgam**

To minimise amalgam waste and ensure that the waste is disposed of correctly, all amalgam waste will be collected in the specially provided container.\*

Amalgam waste includes:

* Amalgam capsules
* Excess amalgam collected in amalgam traps on chairs
* Extracted teeth with amalgam restorations

The container(s) will be collected by a registered contractor (CMO Eco Cycle” 5-11 Reo Crescent Campbellfield Vic 3061, email notification will be sent prior to collection)

*Reference: \*ADA Dental Amalgam waste management policy*

**Sharps**

This includes needles, scalpel blades, glass anaesthetic cartridges, etc

***Extracted teeth*** are to be disposed of as general waste as it is illegal to incinerate teeth restored with amalgam, therefore they must **not** be placed into sharps containers.

Once the container is full:

* Close lid securely
* Store

A licensed contractor collects the containers and will arrange disposal.

**Soft Infectious Waste and General Waste**

* This includes visibly blood-stained, non-sharp waste such as gloves, soiled drapes, extracted teeth, etc
* Ensure the bags are sealed.
* City Councils currently accept general waste from practice’s for landfill disposal.

**Chemical Solutions**

* Dispose of in small quantities into the sewerage system.

# Conclusions

Although the consequences of cross infection can be dire the actual incidence in dental practice is extremely low. By adopting a set of universal precautions for all patients in all procedures it is possible to reduce the risk to negligible. These guidelines are absolute and must be adhered to as a condition of your employment in this practice. However due to the extremely low risk to ourselves and our patients it is important not get paranoid about cross infection. Accept cross infection control as a routine part of dental practice and you will enjoy your place in the dental team.

*FAILURE TO ADHERE TO INFECTION CONTROL PROTOCOLS MAY VOID WORKERS COMPENSATION CLAIMS*

# References

The following references are kept as hard copies in the sterilization room or electronically on the server.

1. [Dental Board of Australia Guidelines on Infection Control](http://www.dentalboard.gov.au/Codes-Guidelines/Policies-Codes-Guidelines.aspx)
2. [The AS/NZS 4815:2006 Office-based health care facilities - Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment](http://www.saiglobal.com)
3. The AS/NZS 4187:2014 Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities
4. [NHMRC Australian Guidelines for The Prevention and Control of Infection in Healthcare](http://www.qip.com.au/getresource.asp?set_id=1&xcid=259)
5. [Department of Health and Ageing Creutzfeldt Jacob Disease Infection Control Guidelines 2013](http://accreditation.qip.com.au/getresource.asp?set_id=1&xcid=395)
6. [Australian Dental Association Infection Control Guidelines 2012](http://www.qip.com.au/getresource.asp?set_id=1&xcid=318)