# DECONTAMINATION

- Waste Disposal and Management
- Standard and Additional Precautions
- Introduction
- Personal and Patient Protection
- Procedures for Dental Clinic
- Sharps Management
- Waste Disposal and Management
- Processing of Instruments and Equipment
- Cleaning

## GLOSSARY

- Waste amalgam
- Scalpel blades
- Surface contamination
- Air, water and suction lines
- Dental light
- Dental chair
- Dental Rubber Dam
- Suction
- Sterile gloves
- Examination gloves
- General purpose gloves
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| **Glossary** |
|-----------------|--------------------------------------------------|
| **Body substance** |Includes any human bodily secretions or substance other than blood |
| **Bioburden** |Organic debris or body substance remaining on the surface of equipment prior to cleaning, disinfecting or sterilising |
| **Cleaning** |The removal of all foreign material from objects, e.g. soil/organic material and the reduction in the number of micro-organisms from a surface. Cleaning must precede disinfection and sterilisation |
| **Cleaning area** |The space allocated in the sterilising room to receive contaminated equipment and the area where cleaning of the equipment is undertaken also called the ‘dirty’ area |
| **Clinical waste** |Waste which has the potential to cause injury, infection or offence and includes contaminated sharps and dressings heavily soiled with blood or body substances, bulk blood or body substances, microbiological and pathological waste and tissue. |
| **Disinfection** |The inactivation of non-sporing organisms using heat or water, or chemical means |
| **Decontamination** |Disinfection of used articles to make them safe to handle |
| **Health care worker (HCW)** |Persons including students and trainees involved in contact with patients or with blood or body substances from patients |
| **Health care facility** |Any facility where health care workers have contact with patients, including hospitals, day surgery centres and nursing homes |
| **Invasive procedure** |Any one or more of the following:  
  - Surgical entry into body tissues, cavities or organs  
  - Surgical repair of injuries  
  - The manipulation, cutting or removal of any oral or peri-oral tissues, including tooth structure during which bleeding may occur  
  - Periodontics  
  - Oral surgery |
<p>| <strong>Monitoring</strong> |A programmed series of changes and checks, repeated periodically and carried out according to a documented protocol which demonstrates that the process being studied is both reliable and repeatable |
| <strong>Operating area</strong> |The area set aside as the primary working area includes patient’s mouth, bracket table and DA’s kit |
| <strong>Oral surgery procedure</strong> |Where there is an incision into the mucosa and a mucoperiosteal flap is raised |
| <strong>Patient</strong> |Includes (but is not limited to) a person who is accessing medical or health services or who is undergoing any medical or health procedure |
| <strong>Sharps</strong> |Any object capable of inflicting penetrating injury and includes hollow bore needles, suture needles, scalp knife blades, orthodontic wires, matrix bands, atraumatic tips, burs and broken glass |
| <strong>Sterilisation</strong> |The complete destruction of all micro organisms including bacterial spores |</p>
<table>
<thead>
<tr>
<th><strong>Sterilisation time</strong></th>
<th>The total time of the sterilisation stage after the sterilising chamber and load has reached the sterilising temperature (penetration time + holding time + safety factor)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Precautions</strong></td>
<td>Standard work practices that are to be applied to all patients and clients regardless of their known or presumed infectious status, which are designed to protect both patients and health care workers.</td>
</tr>
<tr>
<td><strong>Additional Precautions</strong></td>
<td>Measures used in addition to standard precautions when extra barriers are required to prevent transmission of specific infectious diseases.</td>
</tr>
<tr>
<td><strong>Laboratory procedures</strong></td>
<td>Those procedures carried out within the dental laboratory</td>
</tr>
<tr>
<td><strong>Zone of contamination</strong></td>
<td>The primary work surface is where items of direct relevance to the procedure are placed</td>
</tr>
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</table>
Introduction

A basic principle of infection control is that proper technique can minimize the spread of infection to both the patient and the provider. Infection control is an important aspect of dental education and it is essential that students develop good habits early in their training. It is not sufficient to have infection control policies in place, it is also necessary to ensure programs are implemented and that all clinical staff complies.

One of the risks of the delivery of health care is the possibility of cross infection. The School of Dentistry and Oral Health has a responsibility to minimize this risk and, therefore has adopted an Infection Control Policy that requires the wearing of a clinical overgarment, disposable gloves, mask, and protective eye covering when oral examinations and dental procedures are being performed. School policy (GU Health Policy) is that each student/staff is to be vaccinated against Hepatitis B infection.

To implement this policy and coordinate a positive approach to infection control Griffith School of Dentistry and Oral Health has in place an infection control program in place that includes:

- Compliance with Commonwealth and State legislation and regulations including anti-discrimination and with Griffith University’s policies and procedures;
- Ensures that Griffith University Dental School recognises its duty of care to minimise the risk of patients and providers acquiring a health care associated or occupational infection;
- Coordination by a suitably experienced and qualified healthcare worker;
- Development of an annual strategic plan for infection control that includes surveillance, education, staff health strategies and updating policy;
- Strategies to modify procedures and equipment associated with increased risk when appropriate and;

Strategies to monitor the effectiveness of the infection control program and ongoing compliance with regulatory and licensing requirements
STANDARD AND ADDITIONAL PRECAUTIONS

**Standard precautions** are work practices required for the basic level of infection control. They include good hygiene practices, particularly hand washing, the use of personal protective equipment/clothing, appropriate handling and disposal of sharps; disinfection and sterilisation procedures.

Standard precautions are recommended for the treatment and care of all patients, regardless of their perceived infectious status and for the handling of all blood/body fluids, non-intact skin/mucous membranes.

Additional precautions are used for patients for whom the above precautions are not adequate e.g. airborne, droplet and contact transmission or for patients who are colonised with highly transmissible pathogens for which treatment modalities are limited.

**Additional precautions** should be tailored to the particular infectious agent involved and the mode of transmission. In dentistry it may include one or any combination of the following:

- Specially ventilated surgeries;
- Additional protective equipment;
- Rostering of immune HCWs to care for certain classes of infectious patients;
- Dedicated patient equipment;
- Deferring treatment until infectious phase has passed

(Appendix I)
PERSONAL AND PATIENT PROTECTION

Personal hygiene
Hair must be clean and long hair tied back and secured away from the face.

Hand washing
Effective hand washing is the single most important procedure in preventing the spread of infection. The method for hand washing will vary depending on the type of environment and the procedure to be performed.

Staff should be able to easily access hand washing facilities.

Sinks
Hands should not be washed in a sink that is nominated as ‘dirty’ and used for instrument cleaning, disposal of blood, body substances or chemicals.

Routine hand washing
The aim of routine hand washing is to remove the transient bacterial flora. These organisms may be acquired from another person’s skin or from objects in the environment. Hand washing should be performed:

- To maintain personal hygiene;
- After every patient contact;
- After body substance exposure;
- After removing gloves (gloves are not an alternative to hand washing);
- After touching inanimate sources likely to be contaminated e.g. urine containers, after using the toilet;
- Before commencing work;
- Before leaving the clinic;
- After hands are visibly soiled;
- After blowing or wiping of the nose;
- Before meals;
- After smoking;

Non-medicated liquid soap is adequate for routine hand washing. Washing with soap and water helps facilitate the mechanical removal of visible soiling and bacteria temporarily adhering to the skin.

Hands are only to be washed in the designated hand washing sink.

Hands may be cleaned by:
- Using facilities involving water and a soap/non-medicated soap or antiseptic;
- Using non-water cleansers or antiseptics, such as alcohol-based hand rub, if the above items are unavailable.
Research has shown that long finger nails and artificial nails increase the risk of microorganisms growing under nails or in cracked polish. Therefore:

- Finger nails should be short and clean;
- Nail polish and artificial nails should not be worn;
- Rings, watches and bracelets should not be worn.

**Procedure**

After wetting hands, apply soap.

Hands should be washed for at least 15 seconds, paying attention to all areas of the hands. Rinse hands under running water and thoroughly dry hands with disposable paper towels.

**(Appendix II)**

**Hand Care**

Intact skin is a natural defence against infection. Healthcare workers should cover any cuts and abrasions with a waterproof dressing. This dressing should be changed as necessary or when the dressing becomes soiled.

Hand lotion should be used to prevent dryness and should be dispensed from small, individual tubes or pump action dispensers. Compatibility between lotion and antiseptic products and the integrity of gloves should be considered.

**Gloves**

Powder free gloves are worn as a barrier to protect the wearer’s hands from contamination or to prevent the transfer of organisms already on the hands.

Gloves must be used in situations where the health care worker is potentially exposed to blood and/or body substances, in particular:

- During any procedure where direct contact is anticipated with a patient’s blood/body substances, mucous membranes/non-intact skin;
- While suctioning a patient;
- While handling items or surfaces that have come into contact with blood or body substances.

The type of glove selected should be appropriate to the type and risk of the procedure and a suitable size for the user. Powder free gloves are utilised to reduce the risk of developing skin irritations.

**General purpose gloves**

For housekeeping activities, instrument cleaning and decontamination procedures, general purpose household gloves are appropriate. These can be washed and reused but should be discarded when they become peeled, cracked, discoloured, torn or punctured.

**Examination gloves**

Examination gloves that conform to **AS/NZS 4011** should be used for all procedures that may involve direct skin or mucous membrane contact with blood or fluid capable of transmitting blood borne pathogens.
**General Dental Use**
Non-sterile gloves are suitable for general dental procedures including exodontia and must be changed and discarded:

- immediately any damage becomes apparent
- after treatment of the patient is complete
- when there is a risk of cross-contamination from separate procedures on the same patient

Gloves should never be worn:

- when entering data on a computer or making written notes;
- in the waiting room/reception area;
- outside the clinic;
- the common rooms;
- answering the telephone.

Gloves must be worn for all intra-oral procedures including the taking of radiographs.

**Sterile gloves**
If the procedure involves contact with tissue that would be sterile under normal circumstances (oral surgery procedures), sterile gloves must be worn and conform to Australian/New Zealand Standard AS/NZS 4179.

**Masks**
Masks are to be worn by clinical staff exposed to blood or saliva aerosols. Change masks regularly (after every patient) and more often if they become wet from talking, coughing, exhalation etc.

- the mask should be fitted as per manufacturers’ instructions;
- it should not be touched during patient treatment;
- it should be disposed of after use and not reused;
- it should not be worn loosely around the neck or carried in the pocket of gowns or uniforms.

**Protective clothing**
Protective gowns/uniforms are provided for clinical staff. They should be clean and changed daily or more frequently if obviously contaminated.

Gowns should only be worn in the clinical area.

**Protective eyewear**
Protective eyewear must be worn during clinical procedures, prosthetic adjustments when handling chemicals or performing decontamination/cleaning duties.

Eyewear must be appropriate side winged or wrap around eyewear.

Prescription glasses must have this side protection or be used in conjunction with a face shield.

Face shields are available in every clinical bay.
Patients must be provided with protective eyewear at the beginning of treatment.

Goggles/spectacles/face shields must be cleaned after patient treatment or if visibly contaminated, using a mild detergent.

Eyewear must conform to **AS/NZS 1337**.

**Footwear**

Closed-in, non-slip flat shoes must be worn at all times when in any clinical or laboratory area.
PROCEDURES FOR DENTAL CLINIC

Although the physical setting of dental surgeries is a limiting factor, the implementation of close-support, four handed dentistry is considered ideal in the delivery of dental care. Four handed dentistry involves planning, organisation and monitoring to ensure success. Clinicians and assistants should be trained in these techniques. All instruments and materials should be set out before treatment starts. This reduces the need to open drawers or cupboards during the appointment.

- All instruments, including handpieces and burs should be set out prior to commencing treatment
- Instrument cassettes for specific procedures (i.e. restorative, endodontics etc) and pre-set trays are available to assist with ensuring that items are not overlooked when setting up the surgery. (Appendix III)
- Wherever possible materials should be pre-dispensed
- Hand mixed materials should be mixed on a single sheet of paper
- If any other items are required during the treatment session, gloves should be removed or transfer tweezers used to retrieve items.

Planning

Demarcating clean and contaminated zones
The area designated as contaminated should be identified in the clinical area. The focal point is centred on the patient’s mouth and the clinician and assistant’s work surfaces.
- Instruments and equipment should be confined to a well-designated contaminated zone
- Sterilised instruments, equipment, materials and medications are stored in the clean zone
- Gloves and masks must be removed and discarded before leaving the surgery or clinic to go to the administration area
- Gloves must be removed and hands washed before using the computer keyboard
- The contaminated zone is for items used during patient treatment
- All items within this zone must be considered contaminated

Limiting contamination

Barriers
The integrity of the operating field should be maintained during each treatment. The formation of droplets, splatter and aerosols should be minimised during treatment. Barrier draping, using plastic wrap, sterile drape or preformed plastic covers, should be used where appropriate. Sterile drapes should be used for surgical procedures.

Suction
Effective suctioning at the tooth site will markedly reduce contamination from aerosol droplets.
Dental Rubber Dam

The use of rubber dam is an effective measure in confining and limiting contamination.

The dental surgery equipment

Dental chair

Barrier wraps must be removed at the end of the treatment and the chair wiped over with a neutral detergent.

Dental light

- The patient light should be positioned before treatment starts
- Only the handles of the overhead light which are barrier wrapped should be touched
- The barrier wraps should be removed at the end of the treatment

Air, water and suction lines

Suction lines should be flushed through with a recommended solution at the end of each treatment session. Between patients the suction lines should be flushed through with clean water.

Air and water lines should be flushed for a minimum of 2 minutes at the start of the day and for 20-30 seconds between patients.

All dental equipment that supplies water to the oral cavity should be fitted with anti-retraction valves. Routine maintenance of these valves is necessary to ensure their effectiveness and advice should be taken from the manufacturer regarding a suitable maintenance routine.

General cleaning

Deposits of dust, soil and microbes on surfaces may be a potential source of infection. Work surfaces should be cleaned regularly. Surfaces should be cleaned immediately following spills or when visibly soiled.

An approved decontaminant should be used for general cleaning. Disinfectants should not be used for this purpose.

General purpose gloves should be worn when cleaning and if there is a chance of splashing during cleaning then a fluid-resistant gown, protective eyewear and mask should be worn.

Cleaning items, including solutions, water, buckets, cleaning cloths and mop heads, should be changed routinely and immediately following contamination with body substances. These items should be stored dry between each use.

Surface contamination

Surfaces must be wiped over between each patient using neutral detergent, water and paper towel. They are to be wiped systematically; beginning with the least contaminated areas and then proceeding to the most contaminated areas.

Spillages

In the event of a blood or body substance spill the following procedure should be implemented:

- Gloves and eyewear must be worn
• Confine and contain the spill
• Cover spill with paper towels to absorb the bulk of the blood/body substances
• Treat the debris as clinical waste
• Clean spill site thoroughly with detergent and water
• Spills on carpets should be managed as follows:
  ▪ Mop up as much as possible using paper towels
  ▪ Clean with neutral detergent and arrange for the carpet to be cleaned with an industrial cleaner as soon as possible

Appendix IV Decontamination of Dental Bay
Appendix V Biological Spill Kit
SHARPS MANAGEMENT

The potential for transmission of blood borne infections is greatest when needles and sharps are handled. It is the responsibility of all staff/students to handle sharps with care. Procedures must be followed which minimise the risk of injury during clinical procedures, cleaning of reusable instruments and disposal.

Responsibilities
The clinician, who uses a sharp, is responsible for the safe management and disposal of the sharp.

Movement of sharps
Sharps must not be passed by hand between a health care worker and any other person.

Reusable sharps must be placed immediately after use in a sharps container.

Needles should not be left on the bench or bracket table until the end of the appointment.

However, anaesthetic cartridges should be retained until completion of treatment so that they may be counted.

Dental burs should be removed from the handpiece after use.

Disposal
Sharps containers should:

- Be puncture-resistant, waterproof and leak-proof
- Have an opening that is wide enough to allow sharps to be dropped into the container by a single hand operation
- Be clearly labelled with black lettering on a yellow background
- No more than two-thirds full
- Be securely sealed with a lid before disposal

Use the sharps container for all sharps, including needles, burs, matrices, scalpel blades, sutures etc. Anaesthetic cartridges and used disposable syringes should also be placed in the sharps container.

Sharps containers should be placed so that visitors cannot easily access them. The size of the container will vary according to need. It should be of the appropriate size for the dental surgery/unit to ensure that it is changed regularly and not kept for long periods of time.

**Sharp objects should never be placed in contaminated clinical waste bags or containers.** Sharps containers must conform to AS/NZS 4261.

Scalpel blades
The procedures and devices specified in the AS/NZS 3825 should be followed for the removal and disposal of scalpel blades and other similar instruments.
Reporting skin breach injuries

All sharps injuries and blood exposure incidents must be reported to an immediate supervisor or occupational health officer immediately after the incident. Ensure an accident report form is completed.

Regardless of the source of exposure, the injured person should be referred to Staff/Student Health and immediately examined. The risk will be assessed by a trained health care worker or doctor with experience in the management of blood borne diseases and infections.

The source of the fluid (normally the patient) will be counselled by a senior dentist and a request made for a blood sample from which their state of infectivity can be assessed.

Needles

A needle must not be removed from a disposable syringe, broken or manipulated by hand unless a procedure is being performed in which the needle is required to be bent (Endodontics).

A needle must not be bent after it is contaminated. If a needle must be bent a suitable pair of forceps should be used.

Endodontic irrigation syringes should not be re-sheathed or dismantled and should be disposed of in the sharps container as soon as the procedure is finished. (Do not leave needles on the bracket table).

Re-sheathing of Dental Needles

In dentistry, re-sheathing a needle may be required before the syringe and needle can be dismantled. In this instance the clinician must recap utilising one of the following methods:

- One handed scoop technique
- Recapped with artery forceps

With either technique the operator must ensure that the cap is firmly seated before dismantling the needle.
WASTE DISPOSAL AND MANAGEMENT

Introduction

The Environmental Protection Act 1994 requires all organisations, including healthcare facilities, to take appropriate measures to ensure the minimisation and/or elimination of environmental hazards, including waste.

The Environmental Protection (Waste Management) Regulation 2000; AS/NZS 3816; Australian Standards, DR06374; and NHMRC National Guidelines for Waste Management in Health Care contain specific provisions in relation to the management of clinical and related wastes.

Waste disposal comprises the proper segregation, storage and eventual disposal of waste in a manner that does not pose a hazard to people and the environment.

Specified health care facilities are responsible for preparing a clinical and related waste plan. All facilities generating clinical and related waste must ensure that waste is appropriately segregated for the disposal method used. Griffith University has a campus-wide waste management plan which may be accessed on www.griffith.edu.au

Clinical waste

Pathological, bio-hazardous, contaminated, infectious or medical waste, clinical waste with the potential to cause disease, includes:

- Discarded sharps
- Human tissue waste
- Visibly blood stained body fluids and visibly blood stained disposal material and equipment
- Teeth are specifically excluded

Clinical waste should be segregated – placed in leak-proof bags or containers – and contained at the source of generation. The waste bags should be strong enough to contain the waste safely. The bags should never be overfilled as this prevents closure and increases the risk of rupture in transit. The bags must be tied or sealed, then stored in a secure place for collection.

Heavy duty gloves must be worn when handling clinical waste bags and containers.

Healthcare workers involved in the disposal of blood or body substances must wear the appropriate personal protective equipment and minimise splashing or contamination to mucosa or skin.

General waste

General waste includes such items as:

- Paper
- Plastic
- Food
- Other items not contaminated with large quantities of free flowing or expressible blood
- Sanitary napkins, disposable nappies and incontinence products
When disposing of these items rubbish bins with lids should be used in the clinical areas. Incineration should be the method of choice when disposing of flammable material.

**Waste amalgam**

Waste amalgam to be stored in a correctly labelled, screw top jar under radiographic fixer solution to await collection, and correct disposal by an approved waste-recycling agent. All amalgam waste in the Griffith Dental Clinic is returned to the supplier who is responsible for disposal and recycling in accordance with legislation.

Waste amalgam must not be incinerated. Further information can be found in the 1998 NH & MRC’s publication *Recommendations on Dental Mercury Hygiene.*
PROCESSING OF INSTRUMENTS AND EQUIPMENT

Reprocessing requirements
Any micro-organisms, including bacterial spores that come into contact with normally sterile tissue can potentially cause infection. These must be eliminated from items intended for use in sterile sites by cleaning and sterilisation.

In general, intact skin acts as an effective barrier to most microorganisms, so items that touch intact skin need only be cleaned unless contaminated by blood and other body fluids or knowingly used on a patient with a multi-resistant organism.

The process indicated for an item depends on its intended use. Instruments and equipment are divided into three groups, based on the degree of risk of infection associated with their use.

(Appendix IV).

DECONTAMINATION

Cleaning

Cleaning is the essential prerequisite for all effective disinfection and sterilisation processes.

If it cannot be cleaned it cannot be disinfected or sterilised.

Gross soil is removed from instruments and equipment using water and detergent immediately after use.

They are then placed on a trolley by staff and taken to the decontamination area.

Staff collect the trolley from the decontamination area and push it into the ‘Dirty Return section’.

The instrument tray with the instruments on is placed on the side of the sink for sorting. (The containers and trolley are wiped with disinfecting cloth and returned to the waiting room).

The instruments are sorted and checked.

Instruments are rinsed to remove gross matter then carefully washed in a detergent solution.

The same process is carried out for the rest of the equipment.
Thermal Disinfection

Instrument Washer
The instruments will be washed and disinfected in a pass through washer (decontamination).

A Tosi Soil Test, is placed with the instruments to test that all blood has been removed from the instruments.

It tests that the washer is working properly.

This machine uses thermal disinfection – that is, it uses heat and water at temperatures and times…..

that destroys pathogenic and vegetative agents.

A washer has individual chambers which allow a wide range of equipment to be processed.

Instrument Reprocessing Room
The cleaning and sterilising room should be designed so that instrument flow is dirty→ clean→ sterile. The room should have:

- Good lighting
- Smooth surfaces without crevices
- Adequate benches and storage space
- A non-slip floor
- Instrument and dirty washing sink
- Hand washing sink separate from washing/cleaning instrument sink
- Ultra sonic cleaner, thermal instrument washer and dry cycle autoclaves

Each area of the room should be clearly identified and the autoclave bank identifies the boundary between dirty and clean.

Further, the clean area must also be dry and therefore protected from aerosols, splashing, hand washing and instrument washing. In addition, it should have adequate storage space for covered and/or packaged instruments and equipment.

Cleaning
Cleaning is essential for all disinfection or sterilisation processes. If bio-burden is not removed it may prevent heat and steam penetration that is required for effective cleaning or sterilisation.

Any instrument or equipment that comes into contact with intact skin must be clean before it is used.

The process of cleaning must involve water and either physical or mechanical action. This can be done manually but is generally performed mechanically using ultra sonic cleaners and instrument washers.
The cleaning process involves:

- Rinsing the instruments with warm (not hot) water to remove debris
- Cleaned manually with detergent and a brush and then rinsed if no ultrasonic cleaner is available
- Rinsing if an instrument washer is not available
- Abrasive cleaners should not be used as they may damage the surface of the instruments
- Any brushes used to clean instruments should be washed, autoclaved and stored when dry
- Instruments and equipment should be dried, preferably using lint-free cloth before packaging.

Special cleaning procedures are used for handpieces and some endodontic instruments.

**Handpieces**

- Wipe with neutral detergent and a nail brush to remove any bioburden
- Process the handpiece in the Assistina for internal cleaning and oiling
- Place in autoclave bag and seal
- Sterilise in the autoclave

**Endodontic Instruments**

Rotary files, Niti reamers and files, and Gates-Glidden burs are the only endodontic instruments that undergo this process.

- Place the instruments loosely in a glass shott bottle filled with biosonic solution
- Process the bottle containing the instruments in the ultrasonic washer
- Rinse in water
- Package when dry
- Sterilise in the autoclave.

Note: All other endodontic instruments are either single use or undergo standard cleaning and sterilising procedures.

**Ultrasonic cleaners**

The use of ultrasonic cleaners should be in accordance with **AS/NZS 4187 and 4815** and includes the following:

- Manufacturer’s instruction should be followed for the use of the ultrasonic cleaner solutions. This includes changing the solution daily or more frequently depending on the use
- Monitoring of the machine should be carried out daily and the results documented. This is carried out using aluminium foil and running it for 20 seconds.
- To prevent pieces of aluminium foil clogging the ultrasonic, the foil should be placed in a sealed bag with enough water to cover the test piece of aluminium foil.
- At the completion of the cycle the aluminium foil should be uniformly peppered over the entire area
- The ultrasonic cleaner should be emptied every night
- **Ultrasonic cleaners do not disinfect or sterilise instruments**
• All residual cleaning fluid must be rinsed from the instruments before continuing the cleaning, disinfecting and sterilisation process

Appendix VI

Disinfection

Any instruments or equipment that comes into contact with non-sterile tissue must be disinfected or sterilised. All instruments are sterilised except those which are re-used and sterilisation will render them inadequate. It is important to remember that disinfection is not a sterilising process. Prior to disinfection all items must be cleaned.

All items placed in the solution should be completely submerged for the appropriate time and according to the manufacturer’s instructions. Instruments should not be added or removed during this time.

Lifting forceps should be used to remove the instruments from the disinfectant. After removal from the solution the instruments must be thoroughly rinsed.

The disinfectant containers must be sterilised or cleaned after use, they should also have lids.

Sterilisation

Sterilisation must be consistent with AS/NZS 4187 and 4815.

Equipment

The method of sterilisation must be compatible with the particular type of instrument or equipment. Any steriliser used must meet the following criteria:

• The relevant manufacturer’s instructions are followed:
• An ongoing monitoring program which reflects the requirements of AS/NZS 4187 and 4815 is followed

Wrapped instrument packs

Instruments packs that are wrapped for sterilisation should have the date the package was sterilised written or attached to the outside of the pack. Manufacturers’ instructions for effective and safe use of the steriliser must be followed.

All wrapped sterile instruments and equipment must be stored in a way that ensures sterility is maintained.

If transparent packaging is not used the contents should be identified. This information should be written on the plastic side attached on the edge of the packaging. Marking pen can penetrate the paper packaging and alter its porosity.

Autoclaves

The most efficient and reliable method of sterilising instruments and equipment is by steam under pressure. This is the preferred method of sterilising in dentistry.

All sterilisers must meet the requirements of the relevant Australian Standards and be operated according to the AS/NZS 4187 and 4815 which includes a requirement for printers.
Bench top sterilisers are to have a registration certificate with the Therapeutic Goods Administration.

Autoclaves should be set to the recommended sterilising cycles as specified in the table below:

<table>
<thead>
<tr>
<th>°C</th>
<th>Kpa</th>
<th>Psi</th>
<th>Holding time plus safety factor (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>103</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>126</td>
<td>138</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>132</td>
<td>186</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>134</td>
<td>206</td>
<td>30</td>
<td>3</td>
</tr>
</tbody>
</table>

Servicing and certification should occur at least annually and this is documented.

**Monitoring/Validation**

Monitoring is a programmed series of checks and challenges, repeated periodically, and carried out according to a documented protocol, which demonstrates that the process being studied is both reliable and repeatable. Validation is the documented procedure for obtaining, recording and interpreting the results required to establish that a process will consistently yield a product complying with predetermined specifications. Validation covers three activities:

- Commissioning,
- Verification of process specification, and
- Performance qualification.

**Chemical indicators**

Every autoclave cycle should be monitored using an indicator which shows that the correct temperature has been reached. Validation of the indicator should be documented and signed off by the person in charge of the sterilising. The indicator should be checked in conjunction with the information from the printer to ensure both tests agree with each other.

**Biological monitors**

A biological indicator containing the test organism *bacillus stearothermophilus* is performed for steam sterilisation and should be used once a year and the results documented.

Daily biological monitored testing is not required if a permanent record of autoclave performance is recorded.

<table>
<thead>
<tr>
<th>Downward displacement steriliser - check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor</td>
</tr>
<tr>
<td>Printer</td>
</tr>
<tr>
<td>Chemical</td>
</tr>
<tr>
<td>Biological</td>
</tr>
<tr>
<td>Repair/service</td>
</tr>
</tbody>
</table>

Following repairs or breakdowns of the autoclave, a biological monitor should be used and the results documented before the autoclave is returned to service.
Tracking

Tracking is utilised to identify the patients on whom individual instruments have been used so that these patients may be traced if an exposure occurs. Instruments used in critical procedures are tracked.

The batch control number is maintained in a logbook and includes the following information –

- Steriliser identification number or code
- Cycle number
- Date of the sterilising cycle including the day, month and year

In addition to monitoring batches of sterilised instruments, reusable instruments used for the following procedures require tracking:

- Implant surgery
- Oral surgery including routine extractions, soft tissue removal and the surgical removal of teeth
- Oral and maxillofacial surgery
- Periodontal surgery, including the use of electrosurgery
- Endodontic surgery

The tracking process comprises the following stages:

- Piggy back labels are produced with the following specific information: date of sterilisation, steriliser identification number and the steriliser cycle number (for that day)
- Labels are applied to all packages/pouches used for critical instruments before sterilisation
- An additional label (with the same specific information) is peeled off and placed in the Standardised Sterilisation Log Book
- Once a critical instrument has been used in a procedure, the top layer of the batch label attached to the sterilisation package/pouch is peeled off and placed onto the instrument tracking sheet which is stored in the patient record folder. (This procedure will become electronic with the commissioning of the dispensing module in the Patient Management System)

(Appendix VII & VIII)
**Storage**

On removal from the steriliser the packs should be aired and allowed to cool before storing. Sterilised items must be stored and handled in a manner that maintains the integrity of the packaging material and prevents contamination of the contents. Sterilised instruments should be stored in a clean area.

Sterilised instruments should be stored so that packaging is not crushed, bent, compressed, punctured and remain sealed without mechanical aids such as paper clips or rubber bands.

The contents of any sterilised package should be considered contaminated if the packaging is either damaged or becomes wet.

Non-sterile instruments should not be stored with sterilised instruments.

**Rotation of stock**

Cassettes and instruments that are not used frequently should be packed into transparent packages and dated with the sterilisation date. There are several factors that influence shelf life: package design, packaging material, storage and handling. A stock rotation policy and procedure should be developed. The system of stock rotation should be based on the date of sterilisation.

**Steriliser failure**

The following procedures to be undertaken in the event of steriliser failure must be followed rigorously:

- Contents are abandoned
- Senior DA, and dentist in charge and must be informed immediately.
- Establish the cause of failure
- The engineer/service personnel notified if necessary
- Repairs are to be undertaken
- Engineer deems the steriliser is operational after checking that the steriliser is functioning
- The steriliser can only be recommissioned following a biological indicator validation.
- The results must be documented according to normal procedures
- **Only after confirmation of validation can the machine return to service**
RADIATION

Radiography equipment
The radiography area, x-ray processor and surrounding area are considered ‘clean’ areas. Equipment which comes into contact with intact skin i.e. x-ray head, x-ray arm, timers and switches should be maintained in a clean state and either cleaned between patients or barrier wrapped.

Lead protective aprons should remain a clean item and the patient’s bib removed before placing the lead apron on the patient.

Intra-oral radiographs
Sealed, barrier wrapped intra-oral x-ray film is to be used if available. The film is removed using the ‘no-touch’ technique. In the case of unwrapped film, it should be disinfected by immersion in neat household bleach for 30 seconds.

Viewing of developed radiographs should occur in a clean area. If viewing in the contaminated zone the film should be protected by barrier wrap.

Where two staff are not available for x-ray exposure, the exposure button must either be protected by a plastic cover or operated with clean hands. The plastic cover must be discarded after each patient.

Extra-oral radiographs
OPG chin rests, head frames, cephaslostat earpieces and extra oral cassettes are to be thoroughly cleaned with detergent and water after use. Bite-pieces for the OPG machine must be cleaned with detergent and water, and then disinfected after use. This equipment should be allowed to air dry prior to storage or re-use.

Disposal of used developer and fixer
Used radiographic developer and fixer are disposed of in accordance with The Gold Coast Chemical Waste Manifest.

Note: For further details and information on Radiation Safety, see Griffith University, Radiation Safety and Protection Plan, Intra and Extra Oral Dental Diagnostic Radiography Practice. refer to web: http://www.griffith.edu.au/ots/ControlledDocuments/rspp_doh_v4.2mm_17aug2005.pdf
MANAGEMENT OF PROSTHETIC PROCEDURES

Laboratory infection control

Items under the heading Personal and Patient Protection should be followed.

All laboratory personnel should wear protective clothing in the laboratory. **When using lathes for trimming or polishing the use of face shields or goggles is mandatory.**

Disinfection procedures should be carried out for the transfer of any work between clinic – laboratory – clinic. If a stage is not marked disinfected then it should be assumed that the procedure has not been carried out and disinfection should occur before any work is carried out.

*(See flow chart at Appendix IX)*

Always check both in the laboratory and the clinic that the correct work is being issued.

Clinical areas

Mixing impressions

For mixing impression material, a rubber bowl and spatula are used. The rubber bowl and spatula must be cleaned with detergent and water and dried after use.

All impressions must be rinsed clean with running water until all debris is removed and then disinfected. The impressions must then be transported to the laboratory in a labelled designated container or single plastic bag which is marked that it has been disinfected.

Disinfection of impressions

Disinfectant solution (1:10 hypochlorite) should be used for the disinfection of impressions and appliances. Containers used to transfer appliances must have lids and should be cleaned and decontaminated before and after use, alternatively single use plastic bags can be used.

Any items sent to the laboratory should be rinsed, cleaned and disinfected before leaving the surgery. It must be labelled indicating to the laboratory staff that the procedure has been disinfected.

The procedure is as follows:

- Rinse under running water
- Squirt with detergent
- Rinse again under running water to ensure the removal of all detergent
- Shake off excess water
- Place in disinfectant solution (1:10 hypochlorite) for three minutes
- Do not leave the impressions in the solution for longer than the recommended time, as impression material can absorb the excess moisture and distort the impression
- Rinse, shake off excess solution
- Package, label and mark disinfected before sending to laboratory
Bites/Try Ins
These must be cleaned and disinfected (Appendix IX) prior to sending to the laboratory and when returned to the clinic, they should be disinfected before insertion in the patient’s mouth.

Disinfection of new appliances/prosthesis
- Disinfect with an appropriate solution (Appendix IX)
- Rinse, shake off excess solution and package as necessary, label, and mark that it has been disinfected.

Adjustments
Minor adjustments may be performed at the chair side in the surgery over a bin. Burs used for adjustments must be cleaned and sterilised after use. If it is necessary to make major adjustments in the laboratory all procedures for disinfection in this policy for transfer between clinic – laboratory – clinic must be followed.

Issuing of Prosthesis/Appliances to patient
- Check that you have correct work
- Disinfect in 1:10 hypochlorite solution for 3 minutes
- Rinse in running water
- Insert, adjust and issue appliance

Laboratory Areas
All cases going in or out of the laboratory must have been disinfected and should be marked accordingly.

Trimming & Polishing
For new items it is recommended that:
- Separate polishing attachments should be kept for brand new items/appliances
- Pumice must not be used for more than one appliance and must be discarded after use
- Brushes should be cleaned and disinfected after use and where possible autoclaved
- Polishing mops and brushes used for repair and reline should be cleaned after use.

Lathes
Lathes are identified as follows:
- Clinical Adjustments
- APEX
- Students

Articulators
Should articulators be required in the clinical area, they should first be sprayed with hypochlorite solution. Models should be removed from the articulated by soaking in 1:10 hypochlorite solution and labelling.
STAFF HEALTH

Risks

Griffith University School of Dentistry and Oral Health require that all staff and students maintain a high standard of infection control in the practice of dentistry consistent with the most recent Commonwealth and State legislation.

Dental practitioners have always been at risk of succumbing to a disease acquired in the course of their duties. However, the possibility of long term survival, with maintenance of professional activities, creates the potential for a pool of infected persons within the profession.

All patients are entitled to good standards of practice and care from their dental practitioners and other health care workers (including dental undergraduates) regardless of the nature of their disease or conditions and in accordance with the Workplace Health and Safety Act 1995. Health care workers owe a duty of care to patients and are therefore responsible for the protection of patients against infection.

The Queensland Anti-Discrimination Act 1991 prohibits discrimination on the grounds of impairment (which includes the presence of a blood borne virus). Griffith University School of Dentistry and Oral Health have the responsibility to protect the public from cross infection and a duty of care to students and staff to ensure their safety.

Queensland State Legislation specifically excludes health care workers who are carriers of blood borne viruses from undertaking exposure prone procedures. Further, it is the responsibility of individual practitioners to be aware of their infective and antibody status for HIV, Hepatitis B and Hepatitis C viruses.

For details of testing regimes, carrier status and immunisation schedules, see the Griffith University School of Dentistry and Oral Health – Health Policy.

The School of Dentistry and Oral Health has developed a policy on the management of patients known to be carriers by students which reflects scope of practice a student is competent to undertake.

(Appendix X)

Students and staff are required to recognise and comply with the principles and requirements of these policies. In addition, the maintenance of personal hygiene, adherence to standard and additional precautions and the avoidance of penetrating injuries are important in the prevention of infections.
Creutzfeldt-Jacob Disease

Creutzfeldt-Jacob disease (CJD) is one of several rare, fatal, transmissible spongiform encephalopathies affecting humans. The classical form of CJD (cCJD) occurs spontaneously in people with a genetic predisposition. Iatrogenic transmission has been documented. Additional precautions (Appendix I) must be applied when treating these patients.

Management of exposure to blood and body substances

These guidelines apply to:

- Injuries from all sharp instruments contaminated with blood or body substances
- Splashes to mucous membranes from blood and body substances
- Splashes to non-intact skin from blood and body substances
- Spillage of blood to large areas of intact skin

Initial Management

If a contaminated sharp object penetrates the skin, the skin must be washed well with soap and water. The same applies if blood gets onto the skin, even in the absence of cuts or abrasions.

Should the eyes become contaminated, rinse the eyes gently but thoroughly with water or normal saline.

Blood spray into the mouth must be spat out and the mouth rinsed with water several times.

All sharps injuries and blood exposure incidents are to be reported to an immediate supervisor or occupational health officer immediately after the incident.

Ensure an incident form is completed. Incidents that do not occur at work should be reported to the local doctor or accident and emergency department at the nearest hospital.

Regardless of the source of exposure, the recipient should immediately be examined and the risk assessed by a trained health care worker or doctor with experience in the management of blood borne diseases and infections. Griffith University, School of Dentistry and Oral Health will assist clinicians with referral to Griffith Medical Service or a Medical Practitioner of their choice.

Infectious diseases, which include the blood borne viruses (BBV) human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV), may be transmitted by significant exposure (skin breach injury or splash) to blood or other body substance. Adherence to standard precaution guidelines remains the first line of protection for health care workers against occupational exposure to BBV. However, once an injury has occurred it is important to minimise the risk of seroconversion by following an accepted protocol and medical regime.

Prophylaxis should be offered on the basis of the risk of infection associated with the injury or exposure.
First Aid for Skin Break Injuries

(All staff are issued with a reminder card which they should carry at all times)

1. Gently encourage bleeding.
2. Wash the area of contamination well with soap and water
3. Place a dressing if required.
4. If the eyes have become contaminated rinse gently but thoroughly with water or normal saline. Make sure that the eyelids are everted and continue for at least 30 seconds. (Eye stream is available in all first aid kits)
5. If clothing contaminated, remove and shower if necessary.
6. If blood is sprayed in the mouth, spit out into a contaminated sink, and then rinse the mouth with water several times.
7. Inform appropriate person to ensure necessary further action is undertaken.

Reporting

1. All injuries are to be reported to an immediate supervisor
2. Ensure that an accident report is completed and signed by the immediate supervisor
3. After all injuries involving a patient (either directly or indirectly), the staff/student should be referred to Staff/Student Health on 5552 8794 or Xtn 28794, who will arrange an appointment and on-going medical management.
4. Staff/student to be provided with 2 Cab charges to attend Staff/Student Health and to travel home.
5. Director of Clinical Operations (DCO) or delegate to be informed
6. Source patient to be interviewed by DCO or delegate and, with consent, referred to their general medical practitioner for a blood testing to determine infectivity.
7. All actions taken to be clearly documented in the patient record.


Health Policy

The School of Dentistry and Oral Health Policy outlines in detail recommended immunisation schedules and requirements relating to infectious diseases for all clinical staff and students. This policy can be accessed on the Griffith University website: http://www.griffith.edu.au/school/doh/pdf/DOHHealthPolicyV3.07.pdf
### APPENDIX I  ADDITIONAL PRECAUTIONS

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>MODE OF TRANSMISSION</th>
<th>RECOMMENDED PRECAUTIONS</th>
</tr>
</thead>
</table>
| Hepatitis A   | Contact (faecal-oral route)                                                          | Standard precautions for continent patients  
addional precautions for incontinent patients – single room with ensuite toilet is desirable                                                               |
| Herpes simplex | Contact (droplet spread by direct contact or indirectly by fomites or by contact with infectious lesions) | Standard precautions  
additional precautions (contact transmission) for patients with lesions disseminating infectious virus. HCWs should cover vesicular lesions. When lesions uncovered, exclude HCW from contact with neonates or immunocompromised patients and from operating rooms and delivery suites |
| Influenza     | Respiratory                                                                          | Additional precautions (droplet transmission)  
Single room or cohort placement in cases of outbreaks, particularly for children and elderly patients. Infected HCWs should not be in contact with patients |
| Measles       | Respiratory (airborne and droplet spread and direct contact with infected throat or nasal secretions. Highly communicable) | Additional precautions (airborne and droplet transmission), with a well-fitting particulate respirator to be worn.  
A negative pressure single room, with the door closed, for infected patients during infectious period. Preclude non-immune exposed HCWs from direct patient contact from 5 days after first exposure until 21 days after last exposure. Infected HCWs should be precluded from contact with susceptible persons until 7 days after rash appears. |
| Rubella       | Respiratory (droplet spread)  
Contact spread                                                                              | Additional precautions (droplet transmission) and single room. Preclude non-immune exposed HCWs from direct patient contact from 7 days after first exposure until 21 days after last exposure. Infected HCWs should avoid contact with susceptible persons until 5 days after rash appears. |
<table>
<thead>
<tr>
<th>DISEASE</th>
<th>MODE OF TRANSMISSION</th>
<th>RECOMMENDED PRECAUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varicella-zoster</td>
<td><em>Chickenpox:</em> Respiratory (airborne) Contact&lt;br&gt;&lt;br&gt; <em>Shingles (localised):</em> Contact</td>
<td>Additional precautions (airborne and contact transmission for chickenpox or disseminated shingles; contact transmission for localised shingles). Preclude non-immune exposed HCWs from direct patient contact from 10 days after first exposure to 21 days after last exposure</td>
</tr>
<tr>
<td></td>
<td><em>Shingles (disseminated):</em> Respiratory (airborne) Contact</td>
<td>Preclude non-immune exposed HCWs from direct patient contact from 10 days after first exposure to 21 days after last exposure</td>
</tr>
<tr>
<td></td>
<td><em>Chickenpox and shingles in immunocompromised patients:</em> Respiratory (airborne) Contact</td>
<td>Infected HCWs should avoid contact with susceptible persons until all lesions are dry&lt;br&gt; Immunodeficient HCWs should not be involved in the care of varicella-zoster-infected patients</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Respiratory (airborne spread)</td>
<td>Additional precautions (airborne transmission) use a P2 particulate respirator&lt;br&gt; Negative pressure single room&lt;br&gt; Tuberculin skin test-positive HCWs (with no previous history of a BCG) should be followed up with a chest xray and clinical review. Defer dental treatment if possible until patient is no longer infectious</td>
</tr>
<tr>
<td>CJD</td>
<td>Contact with infected CNS or neural tissue</td>
<td>1. Use single use instruments&lt;br&gt; 2. Reusable instruments should be a dedicated kit for the individual patient&lt;br&gt; 3. All instruments and materials must be destroyed by incineration&lt;br&gt; 4. High risk surgical procedures should be referred to a dedicated facility&lt;br&gt; 5. Separate isolated water supply and suction should be used.</td>
</tr>
</tbody>
</table>

*Excerpts taken from: Infection Control Guidelines, Australian Government Department of Health and Aging; Overview of Diseases 27-5 Infection Control in the Healthcare Setting*
APPENDIX II  HAND WASHING ROUTINE

Procedure 1
Wet hands and wrists. Apply soap.

Procedure 2
Right palm over left, left over right.

Procedure 3
Palm to palm, fingers interlaced.

Procedure 4
Back fingers to opposing fingers interlocked.

Procedure 5
Rotational rubbing of right thumb clasped in left palm and vice versa.

Procedure 6
Rotational rubbing backwards and forwards with tops of fingers and thumb, of right hand in left and vice versa.

NOTE: Repeat procedures 1-6 until the hands are clean. Rinse hands and pat dry.
APPENDIX III PRESET CASSETTES AND TRAYS

Examination
Rubber Dam
Restorative
Local Anaesthetic
   Aspirating Syringes
   Intraligamental Syringes
Periodontics
   Scaling and Cleaning
   Specialist Periodontal
   Post-graduate periodontal
Endodontic File Packs
APPENDIX IV DECONTAMINATION OF DENTAL BAY

Preparation of the Dental Bay
Always wash hands at the beginning of session

- Fill water bottle with tap water, add ICX tablet to bottle, replace bottle and turn unit on
- Air and water lines should be flushed for a minimum of 2 minutes at the start of the day and 20 – 30 seconds between each patient

Damp dust the complete dental unit using gloves, wipes and an approved decontaminant including:

- Work bench
- Xray viewer
- Overhead light
- Assistants control panel/suction tubing
- Bracket tray/operators console/console lines
- Dental chair

Remove Gloves and Wash Hands

- Place large biodegradable plastic bag over the console
- Place small produce bag over assistant control panel, bracket tray and the keyboard
- Place blue barrier wrap over light handles and the computer mouse
- Proceed to dispensary to be issued with standardised pre-set up instrument / trays / kits / cassettes and materials
- Assessment sheets are also issued at the dispensary
- The sign in sheets are kept in the dispensary until the end of the procedure and will be cross referenced and checked off by a Dental Assistant or Clinical Assistant
- Specialised equipment have specific designated books and will need to be signed out separately and will need to be decontaminated by the student after use and then returned to the dispensary

PPE – Personal Protective Equipment

DO NOT WEAR PPE UNTIL YOU ARE READY TO EXAMINE THE PATIENT

- Place bib on the patient and adjust the chair according to the guidelines
- Masks (operator and assistant)
- Protective glasses/shield (operator, assistant and patient)
- Wash hands (use elbows to turn taps on and off)
- Gloves (operator and assistant)
- Always remove mask, glasses or shield and gloves when leaving the dental bay

DO NOT WANDER AROUND THE CLINIC WEARING CLINIC GLOVES
NO PPE, INCLUDING CLINIC GOWNS SHOULD BE WORN OUTSIDE THE CLINICAL FLOOR!
Decontamination of the Dental Bay

Do not remove gloves, glasses/shield and face mask

- Flush air and water lines for 20 – 30 seconds
- Remove all sharps (needles, scalpels etc) from bracket tray and place in sharps container
- Sharps should never be left on the bracket tray – they should be placed in sharps container as soon as completed using - sharps must never leave the dental bay
- Gather all instruments / kits / cassettes together on the bracket tray ready for collection by a Dental Assistant or Clinical Assistant
- All instruments / kits / cassettes will be cross referenced with the sign out sheets and checked off by a Dental Assistant or Clinical Assistant
- Drape suction tubing and handpiece lines over the chair and remove all bags and barriers
- Dispose of bags, gauze, cotton wool rolls, floss etc into the bin
- Safety glasses and bib chains are to remain in the bay and be wiped with the approved decontaminant / wipe
- All other specialised equipment is to be decontaminated by the student and then returned to the dispensary
- **Wash hands**
- With gloved hands, wipe all surfaces with approved decontaminant wipes, wipe up from cleanest to dirtiest
  - Benches
  - Overhead light
  - Assistants control panel and suction lines and replace in cradles
  - Operators console and handpiece lines and replace in cradles
  - Dental chair
  - Any other areas contaminated should also be wiped down
  - **Remove gloves and wash hands**
- Reset bay as per preparation instructions

End of Session

- Flush suction lines using approved line flushing solution
- Put chair into upright position, raise up, pull light, bracket table and assistants control panel into closed position and switch unit off
- Empty water bottle on unit and replace, leaving bottle empty – **NB Due to compressed air build up, the unit must be turned off when removing bottle**
- Remove bin line and place in large wheelie bins provided
APPENDIX V GRIFFITH UNIVERSITY BIOLOGICAL SPILL KIT AND PROCEDURE

Should contain the following:

- Absorbent paper towelling – 1 roll
- Small Nitrile gloves – 4 pairs
- Medium Nitrile gloves – 4 pairs
- Large Nitrile gloves – 4 pairs
- Extra large Nitrile gloves – 4 pairs
- Disposable apron – 2
- Autoclave bag – 1
- Bleach undiluted – 500ml
- Safety glasses – 2 pairs
- Container for dilution of bleach – 1
- Disposable sharps container – 1
- Plastic forceps – 2
- Permanent marker – 1
- Griffith University Accident/Incident form – 2

BIOLOGICAL SPILL PROCEDURE

Material of high-risk definition should be treated in the following way or material of low risk that is spilt with minimum aerosol generation may be cleaned up in the following manner:

1. Alert people in the immediate area of spill and evacuate area as necessary
2. Put on protective equipment – gloves, apron and safety glasses
3. Prepare 1 in 10 dilution of bleach using the empty 1 litre container
4. Cover the spill with a layer of paper towel
5. Carefully pour the bleach solution onto the paper towel so as not to create a splatter or aerosol
6. Allow approximately 20 minutes to effect disinfection
7. After 20 minutes transfer the contaminated material into a biohazard bag
8. Remove any sharp objects with forceps and discard into a labelled sharps container
9. Use fresh paper towelling soaked in the bleach solution to wipe up any remaining spillage
10. Transfer all contaminated material – paper towelling, gloves, apron – into a biohazard bag
11. Wash hands and any possible contaminated body parts with antibacterial solution located in the sterilising room
12. List used items and request replacements
13. Fill out incident report form and forward to supervisor
APPENDIX VI CLEANING AND DECONTAMINATION OF INSTRUMENTS FLOW CHART

Following end of appointment operator must remove rubbish, sharps, and wipe gross debris from instruments

Sort items by cleaning options

Hand washing

Ultrasonic cleaner

Rinse and Dry

Are all items clean?

Yes

Are all items working?

Yes

Sort items for disinfection or sterilisation

Disinfection
Store items clean & dry

Sterilisation
Package or place in containers ready for sterilisation

Proceed to sterilising flow chart (Appendix VIII)

No

For repair

No
### APPENDIX VII INSTRUMENT CLEANING & STERILISATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Instrument Use</th>
<th>Sterilisation</th>
<th>Procedures</th>
<th>Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical</td>
<td>Entering/penetrating sterile tissues, vascular system, non-intact mucous membrane</td>
<td>Autoclave wrapped</td>
<td>Endodontics Extraction and oral surgery Implants Periodontal surgery</td>
<td>Yes</td>
</tr>
<tr>
<td>Semi-critical</td>
<td>Contacts intact mucous membrane or non-intact skin</td>
<td>Autoclave</td>
<td>Routine dentistry</td>
<td>No Processing parameter recording only</td>
</tr>
<tr>
<td>Non-critical</td>
<td>Contacts intact skin</td>
<td>No Requires cleaning only</td>
<td>Dental chair Routine surgery clean up</td>
<td>No</td>
</tr>
</tbody>
</table>
APPENDIX VIII CRITICAL INSTRUMENT FLOW CHART

Packaged instruments

Sort instruments according to sterilising requirements.

Non-critical load

Load autoclave Never overload

Run Autoclave Cycle

Check printout

Critical load Tracking

Create and attach batch label

Insert duplicate label into logbook adjacent to position for batch print out

Processing parameters pass or fail?

Pass

Attach printout to logbook and sign

Cool and store items in clean dry area

Fail

Attach printout to logbook and sign

Rewrap all items and reprocess once steriliser problem is resolved.
Laboratory Incoming Work

Contaminated

Rinse under running water

Impressions, Models, Wax, Acrylic, Stainless Steel

Decontaminate in 1:10 Hypochlorite for 3 minutes

Remove contaminated gloves

Rinse under running water

Place in clean container

Complete laboratory work

No

Appliances, acrylic or metal only

Ultrasonic Cleaner, 3 minutes

Spray with Alcohol

Remove contaminated gloves

Articulators, (models removed), Co/Cr Alloy

No

Clean Gloves

Remove contaminated gloves
Laboratory Outgoing Work

Rinse under running water

Acrylic Appliances
Acrylic with Stainless Steel
Plaster/stone

1:10 Hypochlorite for 3 minutes

Rinse under running water

Place in sealed bags in hard containers

Mark disinfected

Store and return to clinic for appointment

Articulators
Co/Cr Appliances
Acrylic with Co/Cr

Dip/Spray with Alcohol
APPENDIX X PATIENTS POSITIVE FOR BLOOD BORNE VIRUSES

To: All staff and students in the School of Dentistry and Oral Health

Re: Patients positive for Blood Borne Viruses (BBV's)

Dear colleagues,

This Memo is to remind you of, or to clarify, School Policy for you.

Universal precautions
<http://www.dentalboard.qld.gov.au/documentlibraries/Dental%20Policy%204.pdf>, and the high standards of infection control which we insist upon, exist because it is never known for certain whether or not any given patient is carrying a BBV or other potential pathogen. All patients are assumed to be potentially infectious.

If a patient informs us in their medical history that they are, say, HIV or Hepatitis B or C positive, then that is privileged and confidential information. This remains recorded as part of their confidential medical history, and can only be disclosed to another party with the patient's explicit permission.

Graduates of our clinical programmes who are registered professionals will be required to treat such patients in their practices: to refuse to do so is discriminatory and could result in action from the Dental Board.

At Griffith DOH, the Clinical Reference Group lead by the Clinical Director has agreed that, provided a BBV positive patient is not cognitively impaired or carrying a potentially dangerous opportunistic pathogen (such as open tuberculosis, for example), they should be treated in the general clinic.

It is further agreed that in first semester third year dental students, with limited skills, be not allocated known BBV positive patients. However, from 2nd semester third year students are allocated such patients, particularly the OHT's because they must acquire confidence, under supervision, in managing cases which they will be expected to treat on graduation.

We have agreed that fourth and fifth year dental students may - and should treat such patients.

The School’s procedures for Skin Breach Accidents are clear and every student and member of staff should be carrying a card attached to the ID swipe.

The Clinical Director, Course Convenors and, if necessary, myself are happy to counsel any students with concerns.

Newell Johnson, Head of School and Dean, February 2007
The following 4 paragraphs from the DBQ document should be noted:

3.1 The Dental Board insists that all patients are entitled to good standards of practice and care from their Dental Practitioners and other health care workers (including Student Dental Practitioners) regardless of the nature of their disease or conditions.

3.2 Health care workers owe a duty of care to patients and are therefore responsible the protection of patients against infection.

3.3 Under the general law and the Workplace Health and Safety Act 1995:
   a) An employer has a legal obligation to ensure workplace health and safety employees, patients and others at the workplace; and
   b) Dental Practitioners as employees, have a legal obligation to comply with employer’s reasonable instructions, including instructions for workplace health safety, and not to wilfully place at risk the workplace health and safety of any person in the workplace.

3.4 The Queensland *Anti-Discrimination Act 1991* prohibits discrimination grounds of impairment (which includes the presence of a blood borne virus).
APPENDIX XI INCIDENT REPORT

Refer to website:
REFERENCES


Australian/New Zealand Standards AS/NZS 3816:1998, Management of clinical and related wastes

Dental Board of Queensland Infection Control Guidelines: Policy #4, 3 May, 2005.

Griffith University Health Policy

National Health and Medical Research Council (1998): Recommendations on Dental Mercury Hygiene.

National Health & Medical Research Council 1999, National guidelines for waste management in the health industry
www.nhmrc.gov.au

NSW Health Department 2002: Infection Control Guidelines for the Oral Health Care Setting


Standards Australia (2003) AS 4187: Cleaning, Disinfecting and Sterilising Reusable Medical and Surgical Instruments and Equipment and Maintenance of Associated Environments in Health Care Facilities.
Standards Australia, Sydney.

Standards Australia, Sydney.

Standards Australia, Sydney.

Standards Australia, Sydney.

Standards Australia, Sydney.
Standards Australia AS/NZS 4179: Single-use sterile surgical rubber gloves - Specification

Standards Australia AS/NZS 1337: Eye protectors for industrial applications

Workplace Health and Safety Act 1995