Dr Gary Verdickt - Endodontist

Infection Prevention and Control Manual

27 March 2026

AUSTRALIAN DENTAL ASSOCIATION

Contents

Purpose of this manual

Dr Gary Verdickt - Endodontist has developed the following infection prevention and control (IPC) manual to support staff and practitioner compliance with infection control requirements.

Good infection prevention and control is essential to safe practice. This is reinforced in the Dental Board of Australia Guidance for registered dental practitioners: Infection prevention and control (8 February 2024) and the July 2022 Code of Conduct. Registered dental practitioners must retain personal accountability for professional conduct and the care provided when working in a team. Australian dental practitioners are legally required to comply with the Dental Board of Australia's guidance for IPC, regardless of where they practise within Australia. Each dental practice must also be aware of and comply with state, territory or federal legal requirements relating to infection prevention and control. Both registered dental practitioners and non-registered dental staff such as dental assistants also have obligations to employ safe methods of working under state and territory work health and safety legislation.

Practitioners must maintain their knowledge and skills in infection prevention and control by being aware of evidence-based practice resources and emerging issues relating to infection prevention and control. They must minimise risks to patients by maintaining professional capability through ongoing professional development and self-reflection and by understanding and applying the principles of clinical governance, risk minimisation and management in practice.

The Dental Board has identified that resources to assist dental practitioners are available from professional associations; in this regard, the *Guidelines for Infection Prevention and Control*, Fifth Amended edition, 2026 (ADA 2026 IPC Guidelines) is a relevant resource that gives more detailed guidance and advice on achieving good infection prevention and control. This manual is based on the amended 2024 ADA Guidelines (released in 2026) that include changes based on AS/NZS 5369:2023 *Reprocessing of reusable medical devices and other devices in health and non-health related facilities* Amendment 1.

Each dental practitioner and staff member is responsible for compliance with this manual.

Definitions

The Australian Commission on Safety and Quality in Health Care (ACSQHC): ACSQHC leads and coordinates key improvements in safety and quality in healthcare across Australia. Its purpose is to contribute to better health outcomes and experiences for all patients and consumers, and improved value and sustainability in the health system, by leading and coordinating national improvements in the safety and quality of healthcare.

https://www.safetyandquality.gov.au/

Australian Guidelines for the Prevention and Control of Infection in Health Care (AICG): This is a joint publication of the Australian Commission on Safety and Quality in Healthcare (ACSQHC) and the National Health and Medical Research Council (NHMRC).

https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019

Active air removal: Processes for enhancing the removal of air and penetration of steam into load items that are hollow or porous. Examples include positive pressure methods using steam pulses (purge under pressure, assisted air removal) with alternating inflow and outflow of steam, and negative pressure methods using a vacuum pump (single vacuum pulse, pre-vacuum, preliminary vacuum) or multiple vacuum pulse (fractionated vacuum).

Aerosol-generating behaviour (AGB): Normal activities of people that create aerosols, including breathing, speaking and shouting.

Aerosol-generating procedure (AGP): These include procedures that use any of the following devices: high-speed handpieces, low-speed/prophy handpieces, surgical handpieces, ultrasonic and sonic devices, air polishing devices and hard tissue lasers. Use of the triplex when air and water are used together or when used with air on a wet surface is considered an AGP.

Air removal and steam penetration test (ARSPT): A test used to assess air removal and steam penetration in a steam steriliser. These tests may come in a variety of form factors. ARSPT for small steam sterilisers are required to conform to ISO 11140.6:2022.

Australian and New Zealand Standards (AS or AS/NZS): Documents produced by Standards Australia that set out specifications, procedures and guidelines that aim to ensure products, services and systems are safe, consistent and reliable. These are referred to as either AS or AS/NZS followed by the relevant standard number and the year of publication.

Alcohol-based hand rub (ABHR): An alcohol-containing preparation (liquid, gel or foam) designed to reduce the number of viable microorganisms on the hands without

the use or aid of running water (National Hand Hygiene Initiative, 2023). When hands are visibly clean, the recommended product for hand hygiene in healthcare is ABHR.

Antibacterial hand wash: A detergent-based formulation with proven antibacterial activity, intended to be used with water in a handwashing procedure.

Australian Register of Therapeutic Goods (ARTG): The database of the Therapeutic Goods Administration (TGA) that provides information on therapeutic goods that can be supplied in Australia.

https://www.tga.gov.au/resources/artg

Aseptic technique: The techniques that maintain objects and areas as free from microorganisms as possible. This is required during invasive procedures such as surgical procedures or extractions, i.e. where the defences of the body are breached. Aseptic technique is an element of standard precautions. These measures protect patients from healthcare-associated infections and protect healthcare workers from contact with blood and other body fluids.

Aseptic Non Touch Technique (ANTT®): A method to achieve asepsis by the unique approach of Key-Part and Key-Site Protection, through a combination of standard precautions, non-touch technique and the use of 'critical' and 'general' aseptic fields.

https://www.antt.org/what-is-antt.html

Autoclave: See steam steriliser.

Aseptic technique: Aseptic technique is an element of standard precautions. Aseptic technique is a set of practices that protects patients from healthcare-associated infections and protects healthcare workers from contact with blood, body fluid and body tissue.

Bare below the elbow: All wrist, or nail jewellery (e.g. rings with stones or non-smooth surfaces, bangles and bracelets), watches and wearable devices such as 'Fitbits' must be removed by clinical staff, and skin below the elbow is not to be covered by clothing, prior to clinical staff engaging in direct patient care or in the reprocessing of reusable medical devices (RMDs), as their presence impairs correct hand hygiene, compromises the fit and integrity of gloves and promotes the growth of skin microorganisms. The bare below the elbow concept also includes wearing short sleeves (including for jackets and scrubs) and not wearing clothing with long sleeves unless rolled-up and secured above the elbows.

Batch control identification (BCI): Also referred to as tracking or traceability, BCI is the ability to link a patient procedure involving RMDs back to the records for a specific steriliser cycle. This is done for an individual set, package or cassette of RMDs, by transferring batch information from the label into the patient's record for that appointment. This includes the date of processing, cycle or load number, and if more than one steam steriliser is in use, its identification number.

Biological indicator (BI): A test system containing viable microorganisms providing a specified resistance to a specified sterilisation process. A common configuration is for a

BI to contain the highly heat-resistant spores of *Geobacillus stearothermophilus* – hence the terminology ‘spore test’ was previously used.

Blood and body fluid exposure (BBFE): An incident involving exposure to blood or other human material. BBFEs include needle stick injuries, cuts with sharp objects or contact of mucous membranes or non-intact skin with blood, tissues or other bodily fluids that are potentially infectious.

Blood-borne viruses (BBVs): A term that includes hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV). These viruses are transmitted primarily by blood-to-blood contact.

Bowie-Dick type test: An air removal and steam penetration test for porous loads in steam sterilisers with pre-vacuum cycles.

Communicable Diseases Network Australia (CDNA): A network comprising government representatives (state, territory, federal and New Zealand) and representatives from relevant organisations that provides national public health coordination and leadership and supports best practice for the prevention and control of communicable diseases. The CDNA also provides nationally consistent advice and guidance to public health units in responding to a notifiable disease event such as a pandemic.

https://www.health.gov.au/resources/collections/cdna-series-of-national-guidelines-songs

Chemical indicator (CI): A device (such as a strip or card) that reveals whether there has been a change in one or more sterilisation process variables. Chemical indicators may respond to heat, steam or other factors.

Cleaning: The removal of visible contaminants, including material residues and biological materials, to render an item visibly clean and suitable for further processing (such as steam sterilisation) or for intended use (in the case of non-critical items). For RMDs, mechanical cleaning methods are preferred due to their greater consistency.

Clinical support staff: Those staff, other than registered dental practitioners, who assist in the provision of dental services – including but not limited to dental assistants, dental laboratory assistants, sterilising/reprocessing assistants and dental technicians. It is recognised that some individuals may have both clinical and administrative roles.

Competent person: Someone who has acquired, through education, training, qualification, experience or a combination of these, the knowledge and skill enabling that person to competently perform the task required.

Contaminated zone: That area of work in which direct contamination by patient fluids (blood and body fluids, including saliva) may occur by transfer, splashing or splatter of material. It includes the operating field in the dental operatory, as well as the area for cleaning RMDs within the reprocessing room.

Dental Board (DBA): The Dental Board of Australia.

Dental practitioner: An inclusive term for those registered by the DBA to provide clinical dental care to patients. This includes general dentists, dental specialists, dental prosthetists, dental therapists, dental hygienists and oral health therapists.

Dental staff: An inclusive term for all those employed in a dental practice setting – namely, dental practitioners, clinical support staff and clerical or administrative staff.

Disinfectant: A substance:

(1) that is recommended by its manufacturer for application to an inanimate object to kill microorganisms; and
(2) that is not represented by the manufacturer to be suitable for internal use.

Disinfection: Destruction of pathogenic and other kinds of microorganisms by physical or chemical means.

Endodontic file: An instrument used during endodontic therapy (root canal treatment). Includes hand and rotary engine-driven instruments. May also be referred to as 'root canal instruments' (as per ISO 3630-1:1992[1]). 'Endodontic files' is the more common contemporary term, as per the Global Medical Device Nomenclature (GMDN) code.

Exposure incident: Any incident where a contaminated object or substance breaches the integrity of the skin or mucous membranes, or comes into contact with the eyes (i.e. BBFE).

Exposure prone procedures (EPPs): Procedures where there is a risk of injury to dental practitioners resulting in exposure of the patient's open tissues to the blood of the practitioner. EPPs are defined in the 2019 edition of the CDNA *Australian National Guidelines for the Management of Health Care Workers Known to be Infected with Blood-Borne Viruses Procedures and Healthcare Workers who Perform Exposure Prone Procedures at Risk of Exposure to Blood Borne Viruses* as procedures where the fingertips are out of sight for a significant part of the procedure, or during certain critical stages, and in which there is a distinct risk of injury to the healthcare worker's (HCW) gloved hands from sharp instruments, needle tips and/or sharp tissues, including spicules of bone or teeth.

Fallow time: A period in which an operatory is 'rested' before being used again to allow aerosols suspended in the air to settle, after which any settled particles can then be removed through the environmental cleaning processes.

Fit check: A test performed each time a HCW puts on a particulate filter respirator (PFR, P2/N95 respirator) to make sure it is properly applied. This ensures the respirator fits the user's face snugly (i.e. creates a seal) to minimise the number of particles that can bypass the filter through gaps between the user's skin and the respirator seal.

[1] Dental root canal instruments. Part 1: Files, reamers, barbed broaches, rasps, paste carriers, explorers and cotton broaches. European Standards in Dentistry.

Fit test: A validated method for matching particulate filter respirators (P2/N95 respirators) with an individual HCW's face shape, which is performed by an appropriately trained person.

Fomite: An inanimate object that, when contaminated with or exposed to infectious agents (such as pathogenic bacteria, viruses or fungi), can transfer disease to a new host by serving as a passive vector. Common examples include high-touch surfaces (doorknobs, switches, mobile phones and other personal electronic devices).

Gap analysis: An approach to achieving conformity to a standard that begins with an assessment of what is currently in place and how that compares to the mandatory requirements of a new standard. This identifies the gaps that must be addressed to ensure conformity with the new standard, and informs the development of a staged plan of action that helps to plan resources and timeframes.

Hand hygiene: A general term applying to processes that aim to reduce the number of microorganisms on hands. This includes applying alcohol-based hand rub to hands, or using a soap solution (plain or antimicrobial) and water.

Hand wash: Hand hygiene that uses both liquid soap and water.

Healthcare workers (HCW). All people delivering healthcare services who have contact with patients or body substances. This includes dental practitioners and clinical support staff.

Helix test: A term that was used prior to 2022 for a process challenge device with a coil design for assessing air removal and steam penetration in hollow loads. This term is no longer current and is included here for historical reference only.

Infection prevention and control (IPC): The creation of safe healthcare environments through the implementation of evidence-based practices that minimise the risk of transmission of infectious agents (NHMRC, 2019).

Instructions for use (IFU): Detailed, action-oriented, step-by-step written and visual instructions provided by the manufacturer of equipment to guide the user in the use of and/or reprocessing of that item

Multidrug-resistant organisms (MRO): Microorganisms that are resistant to one or more classes of antimicrobial agents. Multi-resistant organisms can include bacteria, fungi and viruses.

Negative pressure room: A patient care room used to isolate/treat persons with a suspected or confirmed airborne infectious disease. Environmental factors are controlled in negative pressure rooms to minimise the transmission of infectious agents that are usually transmitted by droplet nuclei associated with coughing or aerosolisation of contaminated fluids. The air handling system operates at a lower pressure with respect to adjacent areas such as the hallway or corridor and is exhausted to the outside (NHMRC 2019, p. 306). The negative pressure room must comply with the Australasian Health Facility Design guidelines.

National Hand Hygiene Initiative (NHHI): The NHHI promotes the use of alcohol-based hand rub at the point of care for all clinical situations where hands are visibly clean.

National Health and Medical Research Council (NHMRC): An expert body supporting the translation of health and medical research into better health outcomes and promotion of the highest standards of ethics and integrity in health and medical research.

Penetrating injury: Any injury from a sharp object such as an injection needle, scalpel blade, dental bur, matrix band or denture clasp contaminated with a patient's blood or saliva.

Particulate filter respirator (PFR): Particulate filter respirators are designed to reduce the wearer's respiratory exposure to airborne contaminants such as particles, gases or vapours. P2/N95 respirators are types of PFR.

Process challenge device (PCD): A device that contains a chemical indicator (e.g. Class 2) in a special container that poses a defined resistance to air removal and steam penetration. For small steam sterilisers, such tests must match the level of challenge posed by the reference hollow load described in ISO 1114.6:2022.

Personal protective equipment (PPE): A variety of barriers used alone, or in combination, to protect mucous membranes, skin and clothing, from contact with infectious agents. PPE includes gloves, masks or respirators, protective eyewear, face shields and gowns/aprons.

Product family: RMDs that have similar attributes in terms of processing and present a similar challenge to cleaning and sterilisation processes because of similar shape, size and material of construction, and the presence or absence of lumens. Examples of separate product families include solid metallic dental hand instruments (e.g. excavators, extraction forceps, periodontal probes, Gracey curettes), solid metal hand instruments with polymer grips (e.g. ergonomic scalers), polymer items (e.g. mouth props, dental dam frames), hollow items (piezoelectric scaler barrels, high-speed air turbine handpieces, metal triplex tips, metal suction tips), and sealed sterilisable surgical motors.

Reusable medical device (RMD): This refers to any instrument or device (such as a handpiece) where the item is designated or intended by the manufacturer as suitable for processing and reuse. These items may be separately packaged or formed into sets.

RMD recall: The identification and retrieval of non-conforming RMDs and the identification of patients for whom they may have been used. Non-conforming includes a failure to clean or sterilise items.

Single-use item: A device supplied to a dental practice that is specified by the manufacturer as being for use in a single visit of patient care. These will be marked with a specific symbol:

Standard aseptic technique: IPC strategy applied to routine procedures that involve the use of critical instruments (e.g. extractions). Standard aseptic technique aims to promote asepsis by protecting the critical (active) parts of RMDs and the critical site during the procedure. This includes the Aseptic Non Touch Technique (ANTT®) for critical sites.

Standard precautions: First-line IPC practices that are applied to all patients, regardless of their perceived or confirmed infectious status, to ensure a basic level of IPC. These evidence-based practices are designed to both protect healthcare personnel and prevent the spread of infections among patients.

Steam steriliser: A device that uses moist steam under pressure for sterilising RMDs. Previously referred to as an autoclave. May be categorised in terms of size (based on EN13060, into large (60 litres and above) or small), and by the types of cycles (B, S and N).

Sterilant: An agent which achieves a sterility assurance level of 10^{-6} [1 in 1 million].

Sterile barrier system (SBS): The minimum package that minimises the risk of ingress of microorganisms and allows aseptic presentation of the sterile contents at the point of use. Within the SBS may be a containment device, such as a cassette, to facilitate the organisation of RMDs. A sterile barrier system, such as a pouch, may be supplied in a form that is ready for filling and final closure or sealing. Examples include paper-plastic pouches and non-woven polypropylene wrap for steam sterilisation, and polyethylene pouches for low-temperature hydrogen peroxide gas plasma sterilisation.

Surgical aseptic technique: Techniques applied to all surgical procedures where a sterile field must be maintained to ensure asepsis of the surgical site. Consists of additional measures including the use of sterile gloves, surgical hand hygiene, sterile drapes and equipment covers, sterile irrigation solutions and RMDs (such as surgical instruments) that are sterile at the point of use (with batch control identification).

Therapeutic Goods Administration (TGA): A branch of the Commonwealth government that evaluates, assesses and monitors medicines, medical devices and biological agents.

Tracking: Also known as traceability. Labelling and record keeping processes that connect the sterilising history of an RMD and the clinical use of the RMD. Includes batch control identification (BCI) as a component.

Transmission-based precautions: Additional IPC practices used in situations where standard precautions alone may be insufficient to prevent infection (e.g. for patients known or suspected to be infected or colonised with infectious agents that may not be contained with standard precautions alone). There are three types of transmission-based precautions: contact, droplet and airborne precautions.

Dr Gary Verdickt - Endodontist infection prevention and control manual

Dr Gary Verdickt - Endodontist has developed this infection prevention and control manual, which is consistent with current legislation and guidelines.

Dr Gary Verdickt will provide all staff with access to this manual and training on the outlined procedures. All staff are expected to comply with the practice procedures as outlined in this IPC manual and to be aware of their legal obligations. These include work health and safety legislation stipulating the need to follow legal directions, including compliance with infection control protocols.

Our practice encourages staff to regularly review IPC protocols, training and documentation. Compliance with this manual ensures that infection control risks are reduced, and compliance issues with infection control protocols will therefore be addressed in staff performance reviews.

Dr Gary Verdickt will ensure that:

- staff compliance with hand hygiene requirements is regularly audited and action is taken to address non-compliance or an inability to comply
- staff compliance with standard and transmission-based precautions is regularly audited and action is taken to address non-compliance or an inability to comply
- the environmental cleaning schedule is regularly reviewed and monitored
- a batch control system is in place that allows identification of the steriliser cycle batch information undertaken on a critical reusable device, equipment or instrument that has been sterilised and used on an individual patient.

A. Infection prevention and control

The transmission of infection in dental practice requires a source of infectious agents – typically microorganisms – a mode of transmission and a susceptible host.

1. What is infection prevention and control?

The purpose of IPC is to reduce the prevalence and prevent the transmission of infectious microorganisms. This is critical to providing high-quality health care for our patients and a safe working environment for our staff. This requires:

- understanding the principles of transmission of infection
- comprehensive IPC training for each clinical staff member
- remaining up to date regarding relevant infectious diseases, new guidelines, products and procedures, and particularly newly evolving infection risks, such as influenza, COVID-19 and multiple-resistant organisms, and how to take precautions against them.

2. Transmission of infection

In dental practice, pathogenic microorganisms may be inhaled, implanted, ingested, injected or splashed onto the skin or mucosa. The main modes for transmission are contact (including blood-borne), droplet and airborne. The mode/s of transmission vary by type of microorganism. In some cases, a microorganism can be transmitted in multiple ways – for example, human influenza virus can be transmitted by both contact and droplet routes.

Proper techniques and effective work practices in our practice minimise the risk of transmission of infection. These include:

- limiting surface contamination by microorganisms
- good personal hygiene practices, particularly hand hygiene
- use of personal protective equipment (PPE)
- risk minimisation techniques such as using rubber dams and disposable products where appropriate (e.g. paper towels) and pre-procedural mouth rinsing.

2.1 Contact transmission

Contact is the most common mode of transmission of infection and usually involves direct or indirect transmission by touch or contact with body substances.

2.2 Droplet transmission

Droplet transmission occurs when an infected person produces respiratory droplets by coughing, sneezing or talking, and during certain procedures. Droplet distribution is limited to around one metre in distance.

2.3 Airborne transmission

Airborne transmission occurs via particles containing infectious agents that remain infective over time and distance, and can be promoted by certain dental procedures that generate particles, as well as by coughing.

3. Legislative frameworks

Registered dental practitioners are legally required to comply with the Dental Board of Australia's policies and guidance. This responsibility rests on the practitioner and cannot be delegated to other staff.

These infection control guidelines are based on the 5th edition (amended in 2026) of the ADA's *Guidelines for Infection Prevention and Control* and the 2019 NHMRC *Australian Guidelines for the Prevention and Control of Infection in Healthcare* (NHMRC 2019 Guidelines), as well as AS/NZS 5369:2023, including Amendment 1.[2]

This manual is supplemented by, and is to be read in conjunction with, the following references.

- Dental Board of Australia, *Self-Reflective Tool for Infection Prevention and Control* (July 2022)
- *Australian Guidelines for the Prevention and Control of Infection in*

[2] *Reprocessing of reusable medical devices and other devices in health and non-health related facilities.*

Healthcare (2019*)* (NHMRC Guidelines)

- AS/NZS 5369:2023, including Amendment 1, *Reprocessing of reusable medical devices and other devices in health and non-health related facilities*

- The National Hand Hygiene Initiative (NHHI).

- *National Safety and Quality Health Service (NSQHS) Standards*, *Primary Care and other* standards from the Australian Commission on Safety and Quality in Health Care.

- ADA's *Guidelines for Infection Prevention and Control*, amended 5th edition, 2026, available at www.ada.org.au

- *Creutzfeldt-Jacob Disease Infection Control Guidelines* (2022 edition).

- Australian Dental Association Infection Control Practical Guides, available at www.ada.org.au

- *The Australian Immunisation Handbook*, available at www.immunisationhandbook.health.gov.au

- *Australian Guidelines for the Management of Health Care Workers known to be Infected with Blood-Borne Viruses and healthcare workers who perform exposure prone procedures at risk of exposure to blood borne viruses* (CDNA Guidelines, 2019)

4. Duty of care

Each registered dental practitioner has a legal duty of care to provide and maintain a safe working environment for their staff, patients and members of the public.

Each registered dental practitioner must ensure the dental clinic environment is kept clean and hygienic to prevent the spread of infectious diseases in this practice.

Work health and safety legislation stipulates a legal requirement for written safety instructions or directives from the employer, which includes infection control protocols. All staff in our practice are to understand and comply with the infection control policies outlined in this manual and the legislative requirements that underpin them.

5. Checklist of requirements

[Owner/owners/senior management/clinical directors/principal dentist]:

- ❑ Has developed and implemented processes to comply with IPC requirements
- ❑ Ensures that all staff have access to and are current in the IPC processes used in our practice
- ❑ Maintains records of relevant training, education sessions, and IPC updates
- ❑ Provides staff with access to key resources such as this manual, the current version of the ADA*'s Guidelines for Infection Prevention and Control*, the NHMRC *Australian Guidelines for the Prevention and Control of Infection in Healthcare*, which are located on the admin@gvendo.com google drive and as documents on the staff tablet devices.
- ❑ Has a system for reporting, monitoring and rectifying breaches of infection control processes. All incidents are logged in the general incident register and are also immediately identified to Dr Gary Verdickt.
- ❑ Ensures that allergy records are updated each year for each member of staff by Dr Gary Verdickt.
- ❑ Implements a hand hygiene program consistent with the National Hand Hygiene Initiative
- ❑ Implements systems for the safe handling and disposal of sharps
- ❑ Implements systems to prevent and manage occupational exposure to blood-borne viruses, and ensures that there is appropriate follow-up of exposure incidents
- ❑ Maintains a record of workplace incidents and accidents (including sharps injuries) as required by national work health and safety legislation
- ❑ Implements systems for environmental cleaning
- ❑ Implements systems for reprocessing of reusable instruments and devices
- ❑ Verifies that each dental practitioner who undertakes exposure-prone procedures), is aware of their own immune status for blood-borne viruses based on testing undertaken at least once every three years, and seeks expert medical advice from an infectious diseases specialist familiar with the requirements of dental practice if they are infected, as outlined in the current CDNA documentation.

B. Standard precautions

In our practice, Dr Gary Verdickt and our clinical staff understand that infection prevention and control requires the appropriate use of standard precautions for all patients, supplemented with transmission-based precautions for certain situations based on the level of risk and in line with a hierarchy of risk controls.

We request that patients and visitors be aware of their role in minimising infection risk in our practice by following basic hand hygiene measures, as well as respiratory hygiene and cough etiquette. These are outlined in the NHMRC NHMRC 2019 Guidelines.

1. Standard precautions

In our practice, the following standard precautions are performed at all times by all staff for the treatment of patients.

- Hand hygiene before donning gloves and after doffing gloves, and after every patient contact, and at other times where there may be contact with contaminated items, surfaces or patient body fluids, in line with the '5 Moments of Hand Hygiene'.
- Use of PPE such as gloves, surgical masks or surgical particulate filter respirators (PFRs), eye protection, gowns and appropriate footwear.
- Use of PPE during clinical procedures, when cleaning the operatory, and when cleaning instruments and other reusable medical devices (RMDs).
- Appropriate reprocessing of RMDs, in line with the requirements of AS/NZS 5369:2023, including Amendment 1.
- Effective environmental cleaning.
- Where indicated in the manufacturer's instructions for use (IFU), the use of barriers such as plastic coverings on surfaces that may become contaminated and are difficult to clean.
- Respiratory hygiene and cough etiquette.
- Use of aseptic techniques.
- Appropriate handling of linen and clinical gowns.
- Correct handling and disposal of contaminated (clinical) waste.
- Safe handling and disposal of sharps.

Note that for suspected or proven cases of airborne viruses (such as SARS-CoV-2/COVID-19), due to risks associated with contact, droplet and aerosol (airborne) transmission, other measures are used in line with the hierarchy of risk controls, as described in the current edition of the ADA IPC Guidelines.

2. General personal hygiene

Practitioners and staff are required to maintain a high level of personal hygiene, and when undertaking clinical procedures maintain the ‘bare below the elbows’ approach.

1. Remove all jewellery (including bangles, bracelets, watches, fitness trackers and rings) from hands and arms.

2. Ensure that long hair is securely tied back.

3. Keep nails short, smooth, clean, and free of nail polish or artificial nails.

4. Ensure that hands are well cared for and that hand skin is intact. Treat and cover broken or injured skin appropriately with a waterproof dressing and change when dressing becomes soiled. Staff with skin conditions or weeping dermatitis should discuss any skin care concerns with Dr Gary Verdickt and seek medical advice.

5. Ensure that hands and forearms are clean and bare below the elbow. If long-sleeved gowns are used, they are donned after appropriate hand hygiene with bare forearms.

3. Hand hygiene

Hands can become contaminated with infectious microorganisms through contact with a patient, the patient’s belongings or surroundings, the environment, or other healthcare workers.

Hand hygiene reduces the number of microorganisms on hands. Hand hygiene involves the application of a waterless antimicrobial agent to the surface of the hands (alcohol-based hand rub, ABHR), or the use of soap/solution (plain or antimicrobial soap) and water.

Comprehensive information on hand hygiene measures is available from the National Hand Hygiene Initiative (NHHI) within the Australian Commission on Safety and Quality in Healthcare (ACSQHC).

Staff compliance with hand hygiene requirements is regularly audited in our practice as it is fundamental to infection control.

ADA recommends the use of the NHHI audit tool for the Dental 5 Moments of Hand Hygiene.

Hand care is important to avoid dry skin and irritation. Our practice encourages good hand care by:

- providing staff with advice on hand care, including the correct use of products such as moisturisers
- providing compatible water-based non-perfumed moisturisers (Angel microshield moisturiser located in the staff room, manufactured by Shulke and stored in the Practice storage cupboards. Product information can be found on the Practice google drive admin@gvendo.com by searching for the document “Microshield Moisturiser 2026 “.
- supporting our staff with skin care concerns (such as irritant dermatitis) to seek professional advice through guidance with Dr Gary Verdickt.

4. Hand hygiene techniques

Effective hand hygiene relies on the selection of the correct product and use of the appropriate technique.

4.1 Alcohol-based hand rubs (ABHR)

TGA-approved ABHR is used by staff in our practice for all clinical situations where hands are visibly clean, including:

- at the start and end of the working day/session
- before and after lunch breaks
- entering and leaving a clinical area
- before touching a patient
- before a procedure
- after a procedure or body substance exposure risk

- after touching a patient, or a patient's surroundings
- before donning gloves
- after doffing gloves
- before handling an instrument for patient care
- between patient appointments
- during interruptions (e.g. before retrieval of a clean item)
- before and after touching a computer keyboard in a clinical area.

Technique:

1. Apply manufacturer's recommended amount into dry hands (usually 1–3 mL).
2. Rub hands together for 20–30 seconds so that the solution comes into contact with all surfaces of the hands, paying particular attention to the tips of the fingers and thumbs.
3. Rub vigorously until the solution has evaporated and the hands are dry.
4. ABHR can be used during the day as often as is required.
5. Bottles of ABHR are not 'topped up'. Empty dispensers are discarded and not reused.

This Practice uses Angel Microshield ABHR. Bottles are located on wall holders in each clinical area (2 in each surgery) in the Steri Room (2) at the entrance to the Practice (1) and in the Staff Room (1). Angel Microshield is supplied by Shulke and is stored in the Practice storage cupboards. Product information can be found on the Practice google drive admin@gvendo.com by searching for the document "Microshield Alcohol Based Hand Rub 2026 ".

Information on selection and systematic application of ABHR is available in the National Hand Hygiene Implementation Guide (2023).

4.2 Hand washing (using plain liquid soap and water)

Staff in our practice wash their hands with plain soap (liquid detergent) and water:

- after meal/toilet breaks

- whenever hands are visibly dirty, contaminated with proteinaceous material, or visibly soiled with blood or other body fluids

- when exposure to potential spore forming organisms is strongly suspected or proven (e.g. if there are visibly soiled hands when working in a residential aged care facility where there is a current norovirus outbreak).

In our practice, liquid handwash from dispensers is used for hand washing. This Practice uses Microshield Handwash. Bottles are located on wall holders within the staff room, in the bathroom, and in each clinical area adjacent to the handwashing sink. Microshield Handwash is supplied by Shulke and is stored in the Practice storage cupboards. Product information can be found on the Practice google drive admin@gvendo.com by searching for the document "Microshield Handwash 2026 ".

Technique:

1. Wet hands thoroughly with cold or warm water.

2. Apply the recommended amount of liquid soap from the dispenser.

3. Rub hands together to form a lather and continue for a minimum of 20 seconds. Make sure that the solution comes into contact with all surfaces of the hands, paying particular attention to the tips of the fingers, thumbs and areas between the fingers.

4. Rinse hands thoroughly under running tap water to remove all traces of detergent.

5. Pat dry using single-use paper towels.

6. Turn off taps using aseptic technique by using a clean paper towel to turn off the taps, or in the clinical areas by using the infra-red on/off no touch switches at the handwashing sinks.

Hand washing posters are displayed in the practice. These posters are available from the NHHI resource site.

4.3 Surgical hand preparation

Staff in our practice perform pre-operative surgical hand preparation using a TGA-approved alcohol-based formulation for pre-operative surgical hand preparation (e.g. for procedures involving raising a mucoperiosteal flap, and the placement of dental implants) as part of a comprehensive set-up for surgical

asepsis. This Practice uses Microshield CHX Surgical Handwash. Bottles are located on wall holders in each clinical area. Microshield CHX Surgical Handwash is supplied by Shulke and is stored in the Practice storage cupboards. Product information can be found on the Practice google drive admin@gvendo.com by searching for the document “Microshield CHX Surgical Handwash 2026 “.

Technique:

1. Don a surgical mask or surgical particulate filter respirator (PFR), and eyewear, before commencing surgical hand preparation.

2. Ensure all jewellery (including plain band rings) has been removed from the hands and wrists, and that the hands are dry.

3. Apply the TGA-approved pre-operative surgical hand preparation product onto the palm, using the manufacturer’s recommended amount (usually 1–3 mL).

4. Rub hands together so that the solution comes into contact with all surfaces of the hands, paying particular attention to the tips of the fingers and thumbs.

5. Use the product for the manufacturer’s stipulated time (e.g. 60 or 90 seconds), rubbing vigorously. Re-apply as needed to keep the skin wet with the product during this time. At the end, the hands are dry.

6. Don a sterile gown with assistance as required to avoid contamination of the hands or gown and then don sterile gloves.

7. At the end of the procedure, after doffing gloves and removing the gown, perform hand hygiene then remove the mask/respirator and perform hand hygiene again before touching clean items such as patient notes or the computer keyboard.

8. For clinicians with dry skin, use a compatible water-based hand moisturiser as often as required (up to four times a day), in line with a healthy hands approach.

5. Personal protective equipment (PPE)

Our clinical staff are required to wear PPE provided by the practice in the following areas.

- Reprocessing area (‘Sterilising room’)
- Operatories (‘Surgery/ies’)

Our staff are educated in the correct use of these items. Disposable gloves that are contaminated are removed before leaving the contaminated zone of the work area (i.e. dental surgery and instrument reprocessing areas), and hand hygiene is undertaken before entering clean zones.

The following PPE is used in the practice.

- Surgical masks
- Gloves
- Eyewear
- Reusable gowns
- Disposable gowns
- Hair nets

PPE storage:

PPE is stored in dedicated spaces within cupboards in surgeries and Practice Storage areas.

PPE disposal technique:

PPE is disposed of in normal waste.

PPE is put on and removed in a defined sequence to reduce the transmission of infection.

The donning sequence for non-surgical procedures is hand hygiene, gown (if being used), mask, eye protection (protective eyewear or face shield), hand hygiene, donning gloves, then commence work.

The removal (doffing) sequence is: remove gloves (or gloves and gown together in the case of a disposable surgical gown), hand hygiene, then eyewear and mask/respirator, then hand hygiene.[3]

[3] NHMRC Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019), Table 14, page 111.

5.1 Gloves

Staff in our practice are educated in the importance of wearing gloves as a part of standard precautions. All gloves used in the practice are approved by the TGA and comply with the current versions of AS/NZS 4011:1997[4] or AS/NZS 4179:2014.[5]

The following gloves are provided by the practice.

- Ansell latex non-powder Denta-gloves.
- Ansell Nitrile Micro-touch gloves.
- Ansell Gammex Sterile Latex Powder free gloves.

Glove supply:

Glove supply is part of the Practices inventory control system. This is overseen by Dr Gary Verdickt. Minimum and maximum stock holdings have been established and are periodically reviewed to ensure gloves are always available. Gloves are ordered from Adam Dental.

Storage:

Gloves are stored in the Practice storage cupboards.

Glove quality issues are to be reported to Dr Gary Verdickt.

Gloves are worn for all clinical procedures. The type of gloves worn are selected according to the task.

- Sterile gloves for surgical procedures (e.g. for procedures involving raising a mucoperiosteal flap, and the placement of dental implants) as part of a comprehensive set-up for surgical asepsis.
- Latex-free gloves for latex-allergic patients or staff, or staff with sensitive skin.
- Hypo-allergenic gloves for staff with skin reactions to polymerising agents.
- Non-sterile gloves for examinations, non-surgical extractions (where no flap is raised), endodontics and other routine dental procedures.

---

[4] *Single-use medical examination gloves.*
[5] *Single-use sterile rubber surgical gloves.*

- Non-sterile disposable gloves for cleaning RMDs such as dental instruments (e.g. when loading them into an ultrasonic cleaner or washer disinfector, when performing manual cleaning, when lubricating dental handpieces, when unloading items from the ultrasonic cleaner).

- When handling and packaging instruments that have undergone ultrasonic cleaning or manual cleaning.

Note that gloves are not needed when handling and packaging items that have undergone thermal disinfection through a washer disinfector. Likewise, gloves should not be needed when unloading a steam steriliser – instead, use the special unloading tray lifters supplied with the steriliser to prevent burns to hands and forearms.

In our practice, gloves are used in the following way.

- Care is taken to ensure that gloves are the correct size and are free of defects.

- Disposable gloves are strictly single-use.

- Bulk storage (cartons of gloves) is within a clean area.

- Both opened and unopened boxes of gloves are stored away from exposure to direct splashes of fluids.

- Glove stock levels are checked regularly (by the Dental Assistant appointed to the monthly ordering process and supervised by Dr Gary Verdickt. New boxes of non-sterile gloves are not opened until needed.

- Hand hygiene is performed before donning gloves, and then regular hand hygiene again after doffing (removing) gloves.

- Non-sterile, powder free examination gloves are used for all procedures that do not require a sterile field.

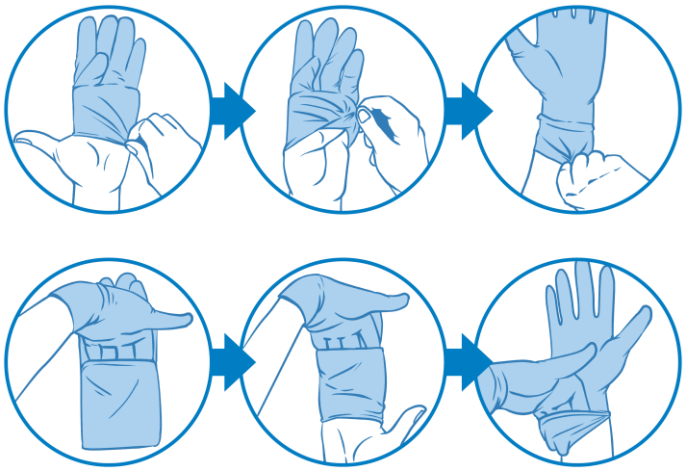
The suggested method of donning sterile gloves, to prevent contamination of the external surface of the glove, is as follows (for right-handed staff).

- Open the glove packaging by peeling open the packet of gloves and unfolding the packet. At this stage, do not touch the exterior surface of the gloves.

- Apply the first glove to the left (non-dominant) hand by sliding the palm up into the left glove (with the thumb facing outwards). Then bend the thumb towards the centre of the palm and continue to slide into the left

glove while at the same time pulling up on the cuff until all fingers are fully gloved. Leave the cuff of the left glove rolled up at this stage.

- Slide the four gloved fingers of the left hand into the cuff of the second glove (the dominant hand, in this case, the right-hand glove). At this stage the gloved left thumb is still facing outwards. Now begin to slide the ungloved fingers of the right hand into the glove. As before, keep the ungloved right thumb facing outwards. Then bend the right thumb towards the centre of the right palm and continue to slide the right hand into the right glove, while at the same time pulling up with fingers of the gloved left hand.
- Last of all, complete donning the gloves by pulling up the cuff of the left (first) glove with the gloved fingers of the right hand. Make sure the cuffs extend over the surgical gown. The procedure is illustrated below:



Removing and discarding gloves:

1. Use the correct method to remove examination gloves, to avoid contamination of the work environment. Place them straight into the waste, rather than onto the working surface.
2. Discard and change examination gloves:
    - as soon as glove damage occurs (torn or punctured)
    - after contact with each patient
    - on completion of any task requiring the use of gloves but not involving patient contact
    - before answering the telephone or recording patient notes (unless the pen, keyboard or telephone is covered with a plastic barrier) or other procedures with a risk of cross-contamination.

In our practice, gloves are discarded as follows:

- Into the waste bin hole in the benches of each clinical area, or into the waste bin in the Steri area, whichever is closest to point of use.
- Gloves that are heavily soiled visible blood are to be discarded in clinical waste

5.2 Masks

In our practice, clinical staff wear a TGA-approved face mask that is compliant with the current edition of AS 4381:2015.[6] For procedures that use a triplex or generate splashes, the mask has level 2 splash protection.

Stock levels of masks are checked regularly [insert how and when mask stocks are checked]. Bulk storage (cartons of masks) is within a clean area. Boxes of masks are kept away from where splashes of fluid occur. Boxes of masks are not opened until ready for use.

The following masks are provided by the practice:

Surgical: AusMed Health Level 3 Surgical Face Mask

Routine: Cybertech Masks Earloop Level 2

Mask supply:

Stock is ordered monthly via the Practice ordering system, which ensures minimum and maximum stock levels are maintained. Minimum stock levels are reviewed periodically. The ordering process is enacted by one or both Dental Assistants, and ordering is supervised and approved by Dr Gary Verdickt. The primary supplier is Adam Dental, with back up from Ark Health and Dentavision.

Storage:

Items are stored in the Practice storage room and/or cupboards. Minimum stock amounts are that which would normally be used over a 3 month period.

Mask quality issues are to be reported to Dr Gary Verdickt.

[6] Single-use face masks for use in health care.

Technique:

1. Perform hand hygiene, then put on gown, then mask, then eyewear, then perform hand hygiene again before donning gloves.
2. Ensure that the mask is worn according to the manufacturer's instructions. Use both tie strings where the mask has two ties. Adapt the mask to the bridge of the nose by shaping the insert to the nose. The mask is fitted to cover both the nose and mouth, and where possible it is folded out fully to cover the chin and upper neck.
3. Avoid touching the mask with hands while the mask is worn.
4. Do not wear masks loosely around the neck or under the chin.
5. Change a mask when it becomes wet or visibly soiled.
6. Remove masks with care, touching the strings or loops only.
7. Discard the mask into the general waste or contaminated waste as appropriate (based on jurisdictional clinical waste guidelines).
8. Perform hand hygiene after all PPE is removed.

Based on a risk assessment, in some situations it may be necessary to wear a particulate filter respirator (PFR) with splash protection designed for clinical settings.

Correct mask wearing is shown below. The mask can be adjusted to prevent the escape of air upwards from the nose, and the protective eyewear or a face shield applied.

5.3 Eye protection

In our practice, eye protection is worn to protect the mucous membranes of the eyes from exposure to aerosols, splattering and penetration from projectiles. Protective eyewear provided by our practice complies with AS 1337.1:2010,[7] which means it is to be clear, anti-fog, distortion free, close fitting and shielded at the sides.

Dental practitioners, staff and patients wear protective eyewear during all clinical procedures. Eye protection is also required when reprocessing instruments and working in clinical and laboratory areas.

Eyewear that is not single-use is decontaminated between patient appointments. This is performed by the Dental Assistant in each surgery. The eyewear is wiped with neutral detergent wipes, and then cleaned with alcohol spray to remove any smears. Eyewear is supplied by Adam Dental.

[7] Personal eye protection, Part 1: Eye and face protectors for occupational applications.

5.4 Clothing

The clothing worn by staff in our practice provides a protective barrier to infection.

Our practice uniform/s are:

- Clinical gowns, which are worn during clinical procedures.

In our practice:

- Gowns are not needed for non-clinical (reception/front office) staff.
- Any reusable gowns worn for patient care are kept clean and in good condition. These gowns are not worn outside the practice
- Gowns protect the street clothes of clinical staff during clinical procedures, during instrument reprocessing, during environmental cleaning and when working in the laboratory. Gowns are not to be worn outside these working areas, including into the staff room for meal breaks. They are removed in the working area before eating, drinking or taking a meal break.
- Some procedures require different gowns. Surgical procedures require the use of disposable surgical gowns.
- Re-usable gowns are stored on hooks in the Practice Storage Room, and on hooks in the surgery. Gowns are used for one day, and then all gowns are laundered on Thursday afternoons. Damaged or marked gowns are disposed of in normal waste. Surgical gowns are stored in the surgical cupboard and are disposed of in normal waste after each patient use.

Technique:

1. Wear protective clothing that is appropriate to the task for all patient procedures.
2. Cover the chest area of all patients with a bib.
3. Change the gown if it becomes visibly soiled. It should be placed in the laundry bin near the washing machine. New gowns are in the laundry area.
4. Sort used linen at the point of generation.

5. Dispose of used disposable gowns according to local waste/EPA regulations.

6. Check that sharps or other objects have not been left in the pockets of cloth gowns that are going to the laundry.

7. Wash soiled linen, such as reusable cloth gowns and clinical coats, in a separate washing cycle. This laundering is done by one of the Dental Assistants on Thursday afternoons. It must be done at the highest temperature setting (90°C) and on the wash/dry cycle to ensure compliance with the linen reprocessing advice in the NHMRC 2019 Guidelines and in AS/NZS4146:2000 *Laundry Practice*.

8. Gowns are stored in the Practice Storage area, and any issues with gowns are to be reported to Dr Gary Verdickt.

5.5 Footwear

The footwear worn by staff in our practice is enclosed to protect the feet of the wearer from injury caused by accidentally dropped sharps or spilt chemicals.

C. Waste management

Dental practice waste can be divided into the following categories: general waste, recyclable (non-sharps) waste, sharps waste and contaminated (referred to as clinical, or medical and related) waste.

State and territory legislation regulates how waste is managed and defines what is classed as clinical waste. Regulations from the jurisdictional (state or territory) environmental protection authority (EPA) or its equivalent body will specify these aspects of waste. Note that what waste can be discharged into the sewer system is controlled by the local government water authority. This can impact on whether excess local anaesthetic or other solutions that are scheduled medicines (and hence classified as pharmaceutical waste) can be disposed of into the sink.

General waste	**Recyclable items**	**Sharps waste**	**Contaminated waste**
All waste other than sharps or infectious non-sharps, including: ▪ firm plastics, which may be made of PVC and should not be incinerated ▪ extracted human teeth ▪ needle covers ▪ mixing pads ▪ paper towelling	**Dental items**: ▪ unwanted radiographs **Non-dental items**: ▪ paper, cardboard ▪ glass, plastic ▪ metal cans ▪ drink containers	**All disposable items that could inflict a penetrating injury**, including: ▪ needles, sutures, scalpel blades, glass, burs, matrix bands, orthodontic wires, stainless steel crowns and offcuts, endodontic files and reamers ▪ broken instruments	**All medical and related non-sharp waste,** including: ▪ all waste with free-flowing blood; human tissue, other than extracted teeth

In our practice, staff are trained in the following waste management process.

- Bin types and locations - general waste (Reception, Waiting Room, Staff Room, Bathroom, Surgeries, Consultation area and Steri room), and sharps waste (in each surgery only). This practice does not perform procedures that generate medical waste.
- Contractor contact details for scheduled pick-ups of sharps waste containers are Samson Health Services (info@samsonhs.com.au).

1. Safe waste handling

In our practice, staff are expected to comply with the safe management of waste in line with jurisdictional regulations and to take care to protect themselves while doing so.

Technique:

1. Apply standard precautions (good hygiene practices, use of protective barriers appropriate to the task, e.g. protective clothing, disposable gloves, mask, protective eyewear).
2. Segregate waste at the point of generation into waste streams.
3. Contain waste in General waste, Recycling bins or Waste to be shredded in the appropriate containers (identified by colour and label) and dispose of according to the Practice's waste management plan.
4. Do not manually compress waste. Do not overfill waste containers or sharps bins.
5. Perform hand hygiene following waste handling.

2. Sharps waste

Inappropriate handling and disposal of sharps can cause penetrating injuries, resulting in exposure of our staff and patients to blood-borne diseases.

To minimise the risk of sharps injuries in our practice, the following techniques are used.

1. A sharps bin is located in the operatory in close proximity to the point of use at or near the X-Ray machine. The sharps bin is a clearly labelled, rigid, puncture-resistant, approved yellow sharps container, conforming

to the current version of AS 4031:1992.[8]

2. Sharps containers are placed in safe positions within the treatment room within mounting brackets to avoid being accidentally tipped over, and are kept out of reach of children. Any sharps containers located within joinery (e.g. inside cupboards) must be able to be examined and must not be accessible to children.

3. Scalpel blade removal devices are not used in this Practice. Only single-use full scalpel blade handles are used.

4. Clinicians take care when using and handling sharps, including hand endodontic files, injecting and irrigating syringes, probes and scalers.

5. Sharps are never passed directly between individuals.

6. Clinicians are the staff member responsible for the immediate safe management of sharps. Disposable sharps are placed into a sharps bin located at the chairside immediately when they are no longer required. During an appointment, sharps such as sutures can be placed in a specific puncture-proof dish before being disposed of at the end of the appointment.

7. Disposable sharp items such as hand endodontic files and needles are placed directly into a sharps bin immediately after their use.

8. At the end of the appointment, any RMDs with sharp edges, such as scalers and probes, are transported between the surgery and the sterilisation area using a securely lidded, puncture-proof tub or container.

9. For rotary nickel–titanium (NiTi) endodontic files that are to be reused, sponges are used to remove gross debris from files. The sponge used for this purpose is secured in a holder to avoid puncture wounds to the hands.

10. Clinicians always remove burs and scaler tips from handpieces before removing the handpieces from their couplings. Burs to be reused are placed back into bur stands and ultrasonic scaler tips are placed back into their stand or mandrel.

11. Clinicians never attempt to recap needles if they are bent. Needles are never recapped after use unless an approved one-handed recapping method (the bayonet technique) or a specialised one-handed needle

---

[8] Non-reusable containers for the collection of sharp medical items.

recapping device is used.

12. Only sharps waste is put into sharps containers (i.e. not clinical waste such as blood-soaked gauze).

13. Sharps containers are never filled above the marked fill line or above the three quarters full mark.

14. Sharps containers, once filled to the designated level, are sealed, and then are disposed of by a licensed contractor – Samson Health Care.

D. Practice environment

Environmental controls inherent in a dental practice design and operation can reduce the risk of transmission of infection. Within our dental practice, there are clearly defined and segregated clean and contaminated zones within the dental surgery, the instrument reprocessing area and the dental lab area. Our staff understand the purpose of and requirements for each zone.

Movement from clean to contaminated zones can occur without changing gloves, but never the reverse.

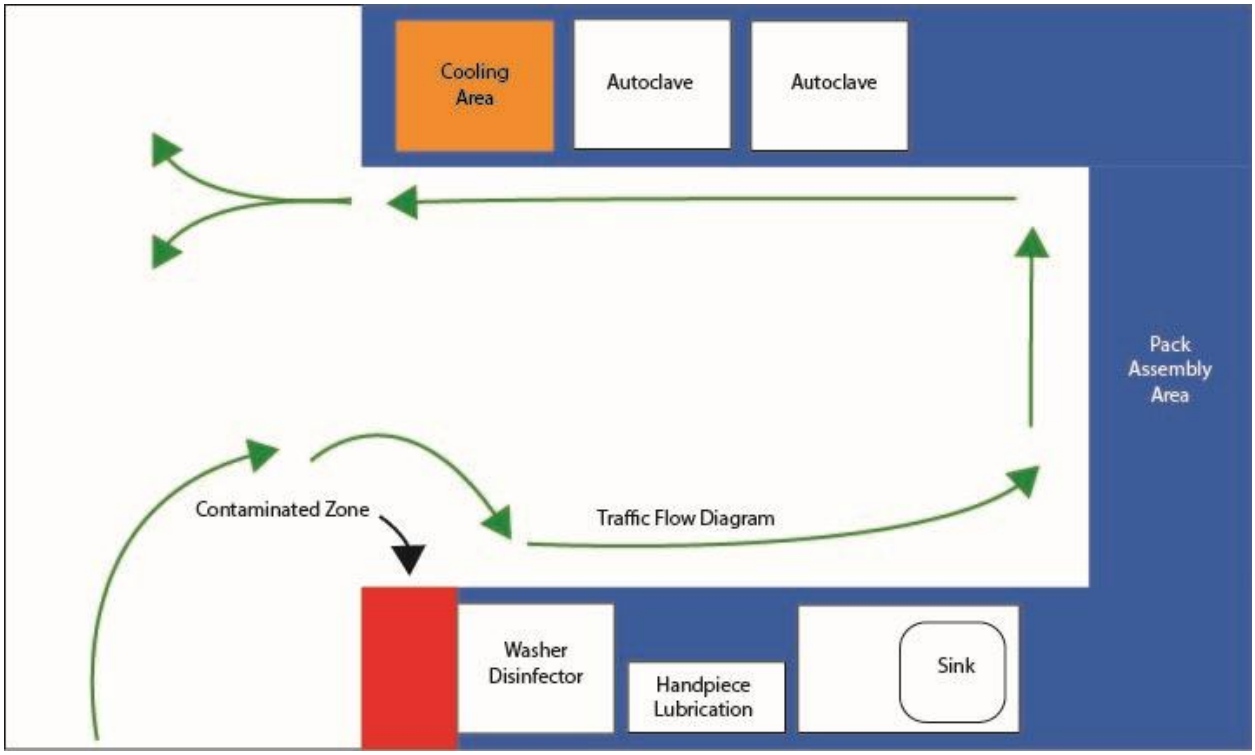
1. Contaminated zone/s

The contaminated zone in the dental operatory is so named because of the splashes and droplets that originate from the patient's mouth and spread from there (typically mostly forward of the patient's mouth within 1 metre).

In our practice the contaminated zone/s are the treatment zone/the treatment periphery zone, which are contaminated with material from the current patient, as well as the instrument-cleaning area. The contaminated zone includes the patient's mouth, dental light handles, triple syringe and holder, the headrest, suction apparatus, handpieces and couplings, and the bracket table.

Contamination can spread if items from this zone are moved beyond its boundaries without being decontaminated prior to being moved

Only items required for each patient's treatment are kept in the treatment zone. Staff cannot bring personal items, clothing or bags into the contaminated zone of the dental practice.



2. Clean zone/s

In our practice, the clean zones include: the office areas, staff room, waiting room, reception areas, and designated storage areas for consumable supplies and for storing sterilised instruments.

The eating and common room staff areas in our practice conform to work health and safety regulations and are separate from patient treatment areas. The lunchroom area is maintained in a hygienic way. Crockery is washed by hand in warm water with detergent in the dedicated kitchen sink and never outside the kitchen area.

Food is stored in a dedicated food refrigerator. Dental materials and medicines that require cold storage are stored in a separate refrigerator.

3. Practice design

Within the dental practice, work areas are well lit and ventilated, with adequate uncluttered and easily cleaned bench space. Adequate lighting, both natural and artificial, is provided directly over work and treatment areas.

The floor coverings in our dental surgery are non-slip and impervious, with sealed joins for safety and ease of cleaning and conform to the *Australian Health Facility Guidelines, Part D Infection Prevention and Control* (version 7.0,

2016).

In our practice, equipment design features include:

- smooth external surfaces of joinery and equipment to facilitate effective environmental cleaning
- surfaces that are resistant to degradation by detergents and disinfectants
- dental chairs with upholstery that is non-absorbent and resistant to cleaning and disinfection solutions
- no spittoon
- dental unit water line management system using water in containers that is filled from the reverse osmosis water supply system which is tested monthly.
- sensor/automatic controls on wash basin faucets.
- bracket table to hold modular trays

4. Ventilation

Dental practices use ventilation, preferably air conditioning, to de-humidify the air and filter out airborne particles. Our practice has a reverse cycle heating/cooling system that is split between the reception/waiting areas, and the clinical/steri areas. It is maintained by Waratah Airconditioning services and is inspected and reviewed every 6 months.

To ensure effective ventilation in our practice, the following procedures are observed.

- Regularly replacing filters in accordance with the manufacturer's instructions for use by Waratah Airconditioning. This is a programmed event every 6 months and is authorized by Dr Gary Verdickt
- Semi-Annual servicing of the system/s is completed by Waratah Airconditioning.

5. Routine environmental cleaning

Our practice is kept clean and hygienic; with a documented cleaning strategy and schedule located at in the Practice Tablet. Instructions for use and safety

data sheets (SDS) for the products that we use are in the Practice Tablet and are accessible by all staff. General work surfaces in our surgery outside the contaminated zone are cleaned after each session, or when they become visibly soiled, according to our practice's environmental cleaning schedule which is listed on the Practice Tablet and is divided between those procedures performed by the Receptionist and those performed by the lead Dental Assistant.

The materials used for cleaning environmental surfaces are in line with a risk assessment with cleaning plus disinfection when risks are higher.

Frequently touched surfaces are cleaned with detergent solution at least daily. When there are elevated risks associated with contact and droplet transmission, all inanimate objects may be removed from waiting room areas. In such circumstances, there is also increased environmental cleaning undertaken of areas that are frequently touched by patients using products with established cleaning and disinfection abilities that are active against enveloped viruses.

We use disposable neutral detergent wipes for all environmental cleaning, including patient toilets. Toilet cleaner is used for the toilet bowl. These items are stored under the bathroom sink.

In our practice, patient notes are written by hand. To prevent environmental contamination of the hard copy notes or computer keyboard, these are only handled with ungloved hands according to standard hand hygiene procedures. Notes and keyboards are always kept in the clean zone.

Specific products are used for cleaning the surfaces of the dental chair, operatory benchtops, and other patient care equipment. This are disposable neutral detergent wipes.

Spills are managed to prevent risks to staff. Spills kits are in each surgery, the bathroom, and in the reception area. These are for the cleaning up of vomit, urine or other such spills.

Hard floors are cleaned with a compatible neutral detergent product. They are vacuumed daily, and a electric floor washer is used weekly by the Receptionist at the end of the working week.

The carpet in our practice waiting room is maintained with daily vacuum cleaning using well maintained equipment fitted with suitable filters to minimise dust dispersion; this is completed by the Receptionist, who empties the vacuum cleaner weekly, and checks the filters monthly.

6. Cleaning treatment areas

In our practice, cleaning the contaminated zone and dental instruments involves more rigorous methods than those used for routine environmental cleaning and is required for staff and patient safety.

Contamination with any blood, tissue or bodily fluid increases the risk of infection and must be cleaned promptly and effectively. Staff always put on new gloves for cleaning working surfaces during the changeover between patients, rather than using contaminated gloves from assisting with the previous patient.

All surfaces and items within the contaminated zone are considered contaminated by the treatment in progress, even if unused.

Our staff always follow manufacturers' instructions regarding surface management for surfaces of dental chairs and items of dental equipment in the contaminated zone. This may include using specified types of barriers on dental chairs and other items of dental equipment.

Surface cleaning between patients is performed systematically, addressing all relevant areas. Our practice has documented processes for cleaning the treatment zone at the start of the day, between patients and at the end of the day.

Technique for environmental cleaning:

1. Apply standard precautions and personal protective equipment for all patient treatment procedures and while in the contaminated zone.

2. All clinical contact surfaces in the contaminated zone are cleaned after each patient systematically (i.e., high to low, clean to dirty) by wiping surfaces with a product based on a neutral detergent by the Dental Assistant using neutral detergent wipes

3. Surface cleaning is also performed systematically, addressing all relevant treatment areas and equipment including the operating light handle, controls on amalgamators, curing lights, triplex, handpiece hangers, ends of suction hoses, impression material dispensers, and the dental chair and armrests.

4. Sinks and wash basins are cleaned daily by the Dental Assistant using neutral detergent wipes.

5. In line with the manufacturer's instructions, some large items are covered with a disposable or sterilisable barrier if they may become contaminated but cannot be sterilised and changed between patients. In our practice

these include the X-Ray head, light handles, bracket table handles, the headrest and the handpiece and triplex tubing. These are cleaned with detergent as per the manufacturer's instructions at the beginning of each day from top to bottom of each area.

6. Materials are prepared prior to the commencement of treatment and dispensed into the working area by the Dental Assistant.

7. Containers of medicaments are kept in drawers and cupboards so that they are free from aerosols and splatter contamination during treatments. Local anaesthetics and medications are stored in unmarked drawers and cupboards out of the reach of patients, and not in any location where a patient would be present unsupervised at any time.

8. Stainless steel surfaces are cleaned using neutral detergent wipes by the Dental Assistant.

9. Instruments are pre-cleaned to reduce the buildup of contaminants using neutral detergent wipes and acetone wipes chairside.

10. Dental chair surfaces that are not covered may become contaminated (for example the bracket arm, upholstery). These are cleaned with compatible neutral detergent wipes by the Dental Assistant.

11. All single-use items in the contaminated zone are disposed of by the Dental Assistant into the general waste stream. Items soaked with blood or saliva are, however, discarded as medical waste. Clinical (medical) waste is placed into appropriately marked containers (marked with the biohazard symbol) and collected and disposed of by a licensed operator.

12. After cleaning, ensure that all cleaned surfaces are dry. Use a low-lint disposable cloth to wipe surfaces, if needed.

Following environmental cleaning, remove gloves, perform hand hygiene and don new gloves before replacing barriers.

6.1 Barrier wraps

The outermost surfaces of most items of modern dental equipment are designed to be cleaned, reducing the need to use barriers. In our practice, specific routines are used to ensure that working surfaces are treated according to manufacturers' instructions, in line with the TGA Essential Principles. This means that some items that may potentially become contaminated but cannot be sterilised are covered with a specific barrier that is changed between

patients. Where required, custom-made barriers are used as specified by the manufacturer. Dental practitioners and clinical support staff always consult the manufacturer's instructions as to the appropriate barrier and cleaning or sterilisation procedures required for these items.

We use barriers on the following items X-Ray heads, light handles, bracket table handles, triplex syringe handles, handpiece rest surfaces, bracket table handles, chair controls, microscope handles, pulp testers, transillumination lights, and LED curing lights.

Any surface barriers used on such surfaces are disposed of after each patient treatment, and a new barrier put in place.

Barrier replacement technique:

1. Apply standard precautions (including gloves) to remove the contaminated barrier/covering and dispose of the barrier into the normal waste stream.
2. Remove gloves and perform hand hygiene. Don new gloves.
3. If there is any chance of saliva or blood contamination of the item, it is cleaned by wiping with a neutral detergent before a new barrier is placed.
4. Remove gloves and perform hand hygiene. Don new gloves.
5. Apply a new barrier before the next patient.

6.2 Start-of-day cleaning

In our practice, our start-of-the-day treatment area cleaning involves the following: A wipe down with neutral detergent wipes (located in the surgery) by the Dental Assistant for each surgery.

The following are cleaned at the start of the day.

- Light handles and operating light switches
- Drawer and cupboard handles
- Controls on the dental chair
- Bracket tables
- Suction hoses

- Couplings and hoses for handpieces
- Couplings and hoses for ultrasonic handpieces
- Couplings and hoses for triplex syringes
- X-ray head
- Microscope handle
- Headrests
- Coupling cradles
- Digital X-ray sensor
- Sinks and taps

6.3 Between-patient cleaning

In our practice, working surfaces in the contaminated zone are cleaned after every patient in a systematic manner (i.e. high to low, clean to dirty) by wiping each surface with a neutral detergent-based product. Standard precautions (including wearing of personal protective equipment) are performed when cleaning these surfaces.

In our practice, our between-treatment cleaning involves the Dental Assistant for the particular surgery using neutral detergent wipes.

The following are cleaned between patients:

- Headrests
- Dental Chair
- Benches

6.4 End-of-day cleaning

In our practice, our end-of-the-day treatment area cleaning process involves:

The Dental Assistant for each surgery using neutral detergent wipes. The following are cleaned at the end of the day.

- Light handles and operating light switches
- Drawer and cupboard handles

- Hand operated switches or controls on the dental chair
- Bracket tables
- Suction hoses
- Couplings and hoses for handpieces
- Couplings and hoses for ultrasonic handpieces
- Couplings and hoses for triple syringes
- X-ray head
- Curing light
- Microscope handle
- Headrests
- Coupling cradles
- Digital X-ray sensor
- Sinks and taps
- Dental Chair

7. Water quality management

In our practice, waterlines are well maintained according to the dental chair manufacturer's instructions.

In accordance with the current ADA IPC Guidelines, the number of bacteria in water used as a coolant/irrigant for non-surgical dental procedures must be less than 200 CFU/mL, since this is a widely used international limit for safe water for medical applications.

In our practice:

- Waterlines are flushed daily, at the start of the day for 20 seconds by the Dental Assistant for each surgery wearing normal clinical PPE (gloves, mask, glasses, cape).
- Waterlines are also flushed briefly again between patients for 20 seconds.

- Special procedures are used to maintain waterlines when closing the practice down for longer breaks or when the dental chair is not used for a period, in line with the manufacturer's instructions. In such cases, an ADEC shock treatment is performed, followed by 2 minutes of flushing both before the shut-down, and after the shut-down period.

- Sterile saline irrigant solutions are used for irrigation during surgical procedures, such as dentoalveolar surgery, endodontic surgery and dental implant placement. These are sterile Baxter saline bottles stored in the surgical equipment cupboard.

- We use a chemical treatment system to reduce the accumulation of microorganisms in dental unit waterlines. These are HENRY SCHEIN Dental Unit Water Purification Cartridges HS-570-2562 iodine slow-release straws that are inserted by the Dental Assistant and changed every 6 months.

- Bacterial levels are tested monthly using Dipslides for each waterline and for the reverse osmosis tap outlet.

- We use the following protocol to lower biofilm levels in dental unit waterlines when bacteria levels are above 200 CFU/mL. We use Adec ICX Renew, 9-Pack from Henry Schein AD-90-1691-01 and follow the IFU for this product.

- We undertake periodic shock treatments (also called sanitising cycles) as per the chair manufacturer instructions, which is when the waterlines have been idle for more than 14 days.

E. Single-use items and instrument reprocessing

The dental instruments used in our practice for surgical procedures are always sterile at the time of use. These instruments are either ‘single-use disposable instruments or RMDs that are safely and effectively reprocessed using steam sterilisation to protect patients and staff from infection.

1. Aseptic technique

In our practice, surgical asepsis is used for dento-alveolar surgery and other oral surgical procedures where flaps are raised (e.g. surgical removal of teeth, endodontic surgery, periodontal regenerative surgery) and dental implant surgery as part of a full surgical setup (sterile RMDs, sterile drapes, sterile gown, sterile field and a scout assistant working outside the sterile field who can gather additional equipment, devices and materials when needed).

Aseptic technique:

1. Maintain excellent general hygiene. Hair is tied back and covered [hair net, surgical cap].
2. Establish a sterile field for working (chairside) and a sterile field for donning gowns and sterile gloves.
3. Perform regular hand hygiene, and don hair net/surgical cap, then mask and protective eyewear.
4. Conduct surgical hand preparation using a surgical ABHR product.
5. Put on sterile gown then don sterile gloves.
6. Place sterile drapes (Halyard).
7. Use sterile instruments that are either single use (and delivered sterile) or that have been packaged and sterilised prior to use and are dispensed into the surgical field.
8. Sterile supplies are used during the surgical procedure (such as sterile saline, sterile gauze, sterile cotton rolls) which are purchased from Henry Schein and stored in the surgical cupboard.

2. Single-use items

In our practice, a range of single-use items are used and are discarded after use, never reprocessed or reused on another patient. These items include all endodontic files, all burs and polishing instruments, disposable triple syringe tips, plastic low speed evacuator tips, high velocity evacuator tips, prophylaxis cups, micro-brushes, plastic Dappen dishes, and mixing pads. They are disposed of into general waste.

Very small and/or sharp instruments are considered single-use, including local anaesthetic needles, cartridges, sutures and scalpel blades, hand endodontic files, small endodontic instruments and all burs]. These are disposed of in sharps containers in the clinical area at chairside by the Dental Assistant.

3. Instrument reprocessing

In our practice, instrument reprocessing is carried out in accordance with AS/NZS 5369:2023, including Amendment 1 [9], and in line with the current ADA UN Guidelines.

Instrument reprocessing is a multistep process that includes cleaning, disinfection (if applicable), inspection and assembly, testing (if applicable), and then packaging and sterilisation (if applicable). All instruments are classified according to the Spaulding classification system (critical, semi-critical and non-critical).

Classification	**Reprocessing**
Critical: Sterile site	Item is wrapped, then sterilised, with batch control identification (BCI) and tracing
Semi-critical: Mucosal contact	Sterilise if possible, otherwise thermal disinfection (instrument washer).
Non-critical: Intact skin	Cleaning with detergent as per the manufacturer instructions

[9] Reprocessing of reusable medical devices and other devices in health and non-health related facilities.

Manufacturers' instructions are always followed for instrument reprocessing and for details of the appropriate barrier required, if any.

Instruments that are corroded, damaged, no longer function as intended or cannot be properly cleaned and disinfected or sterilised are sent for repair or discarded. In our practice each Dental Assistant is responsible for instrument reprocessing.

3.1 Critical instruments

Critical reusable instruments are used for penetration into sterile tissue, cavity or blood stream and pose the highest risk of transmission of infection. Surgical endodontic procedures are the only procedures performed in the Practice that apply.

Technique:

1. During use, reduce the build-up of blood, cement and debris on instruments by wiping them with sterile gauze using a one-handed method.

2. At the completion of the procedure, instruments are cleaned immediately. Time provision is made for surgical procedures to allow placement into the washer disinfector immediately after the procedure.

3. Clean the items using the washer disinfector. The final rinse water is from the reverse osmosis unit. Monthly waterline testing with Dipfilms confirms risk control regarding contact with endotoxins from rinse water that could dry onto items (see AS/NZS 5369:2023, Table 72, and the associated informative appendix for guidance, as well as the current ADA IPC Guidelines and the ADA water risk assessment tool).

4. Once dry, inspect the item for integrity and damage, using good lighting. Discard damaged items or sterilise them and then send for repair.

5. Place items into an appropriately sized pouch, cassette or wrap. Wrapped items are appropriately sealed prior to sterilisation with self-seal, steriliser tape or by heat sealing. Ensure the package is the correct size and is not overfilled.

6. Apply batch control identification (BCI) for all packages containing critical items [describe the procedure used – hand labelling or using stickers; what details are included – date, batch number, expiry date, contents].

7. Ensure the package contents are labelled to describe their contents.

8. Make sure each package has a class 1 indicator included [steriliser process indicator tape or dyes in the package label that respond to heat].

9. Sterilise packages. This is typically performed using a steam steriliser with a ‘B’ pre-vacuum ‘wrapped’ cycle using validated parameters. [State the method and steam steriliser name and brand. If an alternative is used, such as hydrogen peroxide gas plasma sterilisation, state the details of the name and brand].

10. Keep critical items in their packages until used. Store the packages in a way that prevents damage to the item (e.g. no stacking of heavy packages), and avoids any exposure to splashes of fluid, or moisture. Minimise exposure of packaged critical items to high temperature and humidity. Rotate sterile stock so items are used within the stated shelf life. Reprocess any expired items beyond their shelf life.

11. When setting up, check packages are within their expiry date. Then check for intact seals and lack of damage and for proper colour changes of the external Class 1 chemical indicator and any internal Class 4, 5 or 6 indicator before using the contents of the package.

12. Record BCI details for all critical instruments used in the patient’s treatment records.

13. Retain steriliser cycle records to complete the connection of cycle data to BCI data in patient records.

3.2 Semi-critical instruments

Semi-critical reusable instruments come into contact with intact non-sterile mucosa or non-intact skin. Examples of procedures performed in our practice that require semi-critical instruments include intra-oral examination, restorative dentistry, and endodontics. Semi-critical instruments used in the practice include mouth mirrors, restorative hand instruments, dental tweezers and probes, etc.

Semi-critical instruments are not required to be sterile at the point of use. Wrapped semi-critical RMDs do not need to be tracked as critical RMDs.

When purchasing hand files and rotary files, check the product information as to whether the items have been cleaned, packaged and sterilised. If not, package and sterilise them on site in the dental clinic before using them in patient care.

Semi-critical instruments are either ‘single-use disposable’ or they are cleaned and sterilised between patients. When heat sterilisation is not possible (as in the case of optical devices such as curing light tips, intra-oral cameras, intra-oral scanners, pulp testers and transillumination lights the manufacturer’s advice is followed and a disposable barrier may be used.

Technique:

1. Using a one-handed method, wipe the working ends of instruments periodically during use, using an adhesive-backed sponge to prevent cement, blood and other material hardening on the instruments.
2. Clean instruments thoroughly as soon as possible after using them. A washer-disinfector is used for mechanical cleaning.
3. If the instrument/equipment will not tolerate steam, follow the manufacturer’s instructions for how to reprocess it using the washer-disinfector with a thermal disinfection cycle. For the rare situation where this is not feasible, the item must be considered single use.
4. Store semi-critical instruments (including instruments in unwrapped cassettes) in a cleanable, dedicated container in dedicated closed drawers or cupboards away from the contaminated zone and away from fluid splashes and aerosols produced during equipment washing, ultrasonic cleaning and reprocessing, or from clinical procedures and handwashing.

3.3 Non-critical instruments

Non-critical reusable instruments come into contact with intact skin. They pose the lowest risk of transmission of infection. Examples of items used in our practice that are non-critical instruments include rubber dam frames, protective eyewear, odontotest items, and x-ray film holders.

Technique:

1. Clean non-critical items thoroughly as soon as possible after using them in the thermal washer disinfector.

4. Reprocessing area and workflow

The reprocessing area requires: aseptic techniques, instrument flow from contaminated to clean, good lighting and ventilation, hygienic and cleaned work surfaces, adequate storage space, hand hygiene facilities, separate handwashing and contaminated instruments sinks and a cooling area for sterile items awaiting storage.

In our practice, the reprocessing area is divided into dirty and clean areas. Careful transport of contaminated instruments in closed lidded containers is undertaken to reduce cross-contamination and prevent sharps injury.

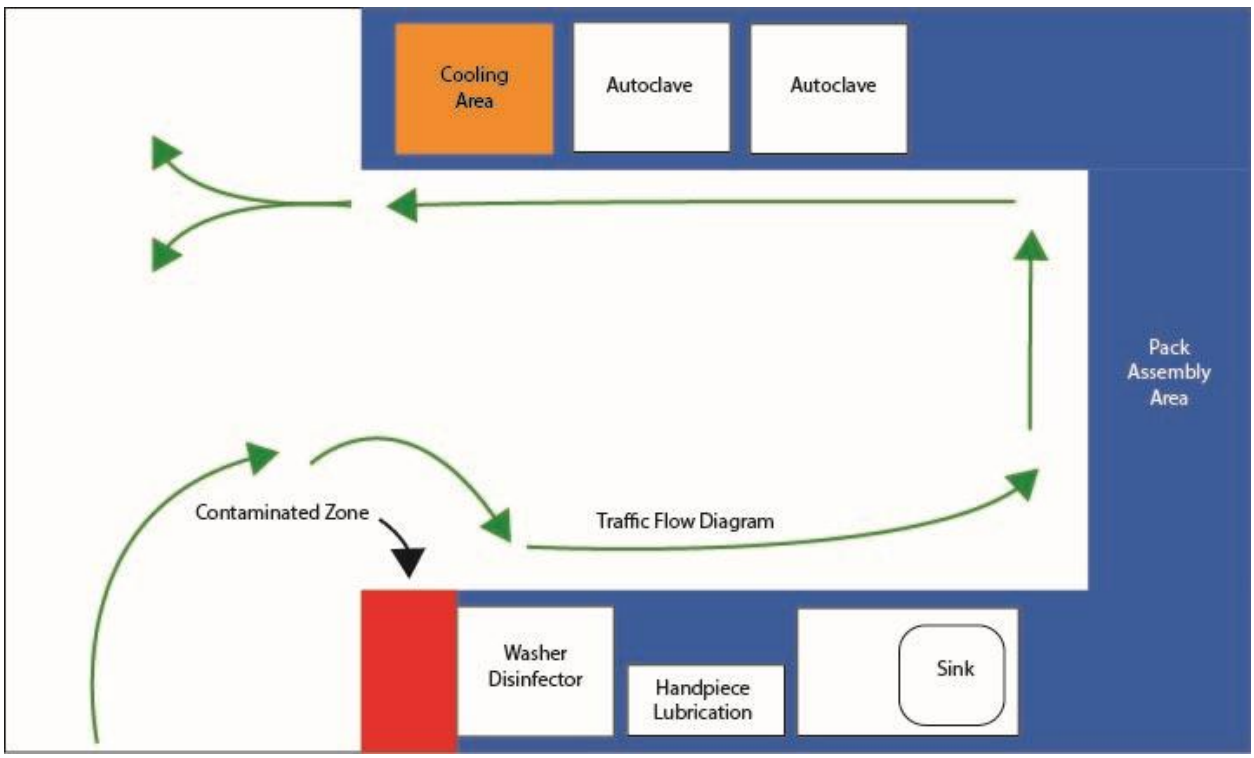
Technique:

1. Using gloved hands, carry contaminated instruments from the operatory/ dental surgery to the reprocessing area using a suitable container, which can comprise simply the instrument cassette that items are reprocessed and stored in.

2. Place the instruments into the instrument washer disinfector directly.

3. Remove gloves and perform hand hygiene.

<u>Instrument reprocessing workflow pattern</u>



5. Mechanical cleaning

Critical and semi-critical instruments are cleaned mechanically. In our practice we use[instrument washer disinfectors to mechanically clean instruments. Instruments are then sterilised using steam.

Ultrasonic cleaners

In our practice, ultrasonic cleaners are not used.

Washer-disinfectors (WDs)

WDs are well maintained and the drain filter and door gaskets are cleaned regularly by the Dental Assistant weekly using a neutral detergent wipe.

In our practice, the use, maintenance and testing of the WD is carried out and recorded according to the following protocol:

Technique:

1. Operate the WD according to the manufacturer's instructions. Dental handpieces are attached to the relevant couplings.
2. The washer disinfector will advise if there is insufficient amount of working solution in the reservoirs to operate the WD cycle. When the WD advises replenishment, the Dental Assistant will place a new cartridge in the machine.
3. Check that the mesh on the floor drains is not blocked with debris.
4. Load the items into the chamber. Position them to stop water pooling. Ensure that the movement of the spray arms is not blocked by rotating the arm to check the clearance.
5. For every cycle, place one soil test strips in a location in the chamber that is difficult to reach. Use Chemsplat test strips in the proprietory holder. Check the soil test result at the end of the cycle and record it in the WD cycle test register on the Practice Tablet.
6. Close the door, select the appropriate cycle and then commence the cycle.
7. On completion of the cycle, check the WD display for correct cycle parameters.
8. Remove the contents. Once they have cooled to room temperature,

items that have undergone thermal disinfection can be handled safely with bare hands.

9. Examine each item visually under good lighting to ensure that it is clean and free from biological residues. If items are clean, they can progress to the packaging and sterilising phases of reprocessing.

10. Discard damaged or rusted instruments and advised the Principal Endodontist so that they can arrange replacement.

11. At the end of each day, check that the drain mesh is clear, the door seals are clean and the chamber is free of residues. This should be performed by the Dental Assistant.

6. Manual cleaning of contaminated instruments

Manual cleaning is avoided, as almost all items are designed to be cleaned using mechanical/automated cleaning.

Manual cleaning is performed in a manner that minimises the risk of sharps injuries and splashes. During manual cleaning, items are held one at a time deep in the designated cleaning sink. Any splashes of cleaning agents onto the skin are washed quickly away with clean water and then treated in accordance with the manufacturer's instructions. Any exposure to cleaning agents is reported to the Principal Endodontist. The procedure below is followed to comply with workplace health and safety principles.

Technique:

1. Apply standard precautions including disposable gloves, eye protection/face shield, a mask, an appropriate gown/apron and suitable footwear.

2. Clean/remove soiling and other contaminants from item as soon as practical after use (preferably chairside) by wiping onto an adhesive-backed sponge.

3. Immerse the item in the dedicated instrument-cleaning sink. Apply lukewarm tap water and an approved instrument-grade detergent W9 Vibrakleen Enzymatic Clinic, 80-Pack from Henry Schein. WN-37101.

4. Use the cleaning devices recommended by the manufacturer and ensure that the items are not damaged. Brushes may be needed to remove

debris. Continue the process until the item is visibly clean.

5. Thoroughly rinse the item in the rinsing sink to remove all traces of detergent.
6. Perform a final rinse of the item using water of the required quality from the reverse osmosis tap (as per Table 7.2 of AS/NZS 5369:2023).
7. Inspect the item under good lighting for remaining residues. Discard the item if it is found to be damaged beyond repair or rusted.
8. If it still has visible debris, consult with the Principal Endodontist about disposal and replacement.
9. Cleaning brushes used for manual cleaning are washed in the washer disinfector and stored to dry on the shelf above the sink.

7. Drying instruments

In our practice, instrument washers have a drying cycle, and produce dry instruments, which eliminates the need for a separate drying step.

8. Disinfection

Disinfection inactivates non-sporing infectious agents, using either thermal (moist or dry heat) or chemical means. Disinfection does not destroy all pathogens (e.g. microbial spores) and is therefore not sterilisation.

A washer-disinfector achieves thermal disinfection. Thermal disinfection is used for all re-usable items in our practice. Chemical disinfection is not used.

9. Packaging prior to sterilisation

In our practice, instruments are packaged into cassettes or pouches prior to steam sterilisation.

In our practice, we use the following for instrument packaging.

- Pouch Sterilization 57x130mm SS57130 from Adam Dental.

- Pouch Sterilization 70x230mm SS70230 from Adam Dental.
- Mocom cassettes.
- Halyard Steri Wrap 60x60cm.
- Class 1 chemical indicator tape from Adam Dental.
- Product issues are reported to the Principal Endodontist.
- Class 6 emulators are used in each cassette, and in one pouch per load.

Technique:

1. Place items into pouches or cassettes. Consider the positioning, so that the handle end is in the correct position for use. Consider the need to protect the working edges of delicate instruments. Ensure that if the item has been lubricated any excess lubricant has been drained off so it does not remain on the item.
2. All wrapped *semi-critical* items have uniform contents (standardized kits) so labelling is not required. Expiry dates do not require recording, as all kits are re-processed annually to comply with the Halyard IFU for 12 months guaranteed sterility if conditions are met.
3. There is only one wrapped *critical* item kit (the single surgical kit) and the date of processing, the steriliser identification and expiry date are recorded in the surgical kit register.
4. Seal all pouches, bags and wraps using the self-sealing mechanism.
5. Take care not to damage or perforate the bags during handling, transport, storage and labelling.

10. Tracking / traceability

Tracking is performed for all packages of critical instruments using batch control identification (BCI). Tracking has two key parts.

The first part of tracking occurs in the reprocessing room, where a batch control number is assigned to the items in one cycle, and the data relating to that cycle is collected when the cycle has been completed. All wrapped/bagged items in the single surgical kit are recorded in the surgical kit register, obviating the need for batch code identification and labelling.

Our practice's BCI procedure involves the following considerations for staff working in instrument reprocessing.

- Sterilising cycle information for each time the surgical kit is sterilised is recorded in the sterilising register for the surgical kit on the Practice Tablet.

11. Steam sterilisation

Sterilisation is the process of destroying all microorganisms, including spores, on the surface of an item. The sterilising requirements for each instrument are specified by its manufacturer, and this information is always followed by our staff.

In our practice, the steam sterilisers used are TGA-approved and are operated according to their manufacturer's instructions. The operating manuals are stored in the Steri room and are available to all staff.

Steam steriliser details:

- 2 Sterilisers present.
- W&H
- Details of each are located on each calibration certificate, kept above each autoclave.

All wrapped loads containing hollow items are processed in our practice using a pre-vacuum cycle that includes a drying cycle (B cycle).

The sterilisers are run using water that is free of ions (dissolved solids). In our practice, this water is sourced from our reverse osmosis unit. The system is

checked by the Principal Endodontist who ensures that cartridges are replaced at appropriate service intervals according to the manufacturers IFU.

Water from successive cycles of the steam steriliser is used once and then dumped. No water is reused.

Daily steriliser maintenance performed in our practice includes the following checks.

- Floor of the steriliser is free of debris
- Chamber drain filter is clear
- All gauges and timers are functioning correctly
- If visible, the door gasket is undamaged (free of lacerations or other defects)

The chamber is cleaned weekly using neutral detergent wipes by the Dental Assistant.

Regular servicing of the steam steriliser is performed by Pegasus Dental, who handles any repairs, and who also does the annual validation and calibration.

A record of mechanical testing, repairs and preventative maintenance must be kept for each steriliser. This information is kept for 7 to 10 years (based on jurisdictional regulations for retention of records).

Steam steriliser maintenance logs and operating manuals are readily accessible by staff and stored in the Steri Room.

12. Steam steriliser loading

Steam sterilisers work effectively if steam can circulate freely and touch each surface of every instrument. The correct load content and positioning of instruments also reduces damage to packs and their contents. In our practice, staff ensure that the steam steriliser trays are not crowded, and items are spread out and not overlapping, and are not touching the chamber walls or the door, by using the following loading devices – trays or the cassettes themselves.

Technique:

1. Load hollow items according to the manufacturers' instructions, e.g. tilted on their edge to facilitate draining of condensate.
2. Position hollow items packed in pouches with their opening against the paper and not the plastic.
3. Load laminate (paper-plastic) pouches on the edge of the paper.
4. Utilise racks for adequate separation of packs.
5. If not in racks, laminate pouches are positioned in single layers with the paper surface downwards, and never stacked on top of each other.
6. Load items within the chamber so that they do not touch the chamber walls at any point.

13. Steam steriliser testing

The requirements for steam steriliser performance testing are set out in AS/NZS 5369:2023 Amendment 1 and are explained in the current ADA IPC Guidelines.

In our practice, staff performing sterilisation are trained in the correct operation of the steam steriliser. Each steam steriliser has a steam steriliser record book, which is filled in when each cycle is loaded and at the end of each cycle. All protocols and procedures for all required tests for steam sterilisers are documented.

Installation & Operational Qualification (IQ & OQ)

Installation qualification has been performed by Pegasus Dental and the reports are kept above each Autoclave.

Performance Qualification or Annual Calibration (PQ)

The annual process of calibrating the thermocouple sensors is performed by Pegasus Dental annually with the reports and details listed on the calibration certificate kept above each autoclave.

Cycle Data

Cycle data from every cycle is captured electronically.

Describe from memory cards and data loggers is periodically downloaded and regularly backed up on a monthly basis by the Principal Endodontist.

14. Validation of the sterilisation process

Validation of the sterilisation process is required to ensure the appropriate sterilisation of items in our practice and includes commissioning and a commissioning report performed by a qualified technician.

Validation is necessary whenever new or repaired sterilisers are installed, when there is a change in the type of packaging material used, or annually at a minimum.

Validation of cycle parameters involves using multiple biological indicators (endospores).

The records for Installation Qualification, Operational Qualification and Performance Qualification are accessible in the practice and are located above each autoclave.

15. Steam steriliser monitoring tests

Regular monitoring of the sterilisation cycle ensures the sterility of reprocessed instruments. The performance of each steam steriliser is monitored by daily and weekly tests as stipulated in AS/NZS 5369:2023 Amendment 1 (Table 8.2). Time, temperature, and, where applicable, pressure parameters are measured with continuous, automatic and permanent monitoring. A separate record book is kept for each steriliser with an entry made for each steriliser cycle. For more information, refer to the current ADA IPC Guidelines.

For the steam sterilisers in our practice that operate pre-vacuum cycles, the following monitoring for air removal is undertaken.

- Chamber/door seal air leakage test is done daily.
- A helix test is performed daily as an air removal and steam penetration test (ARSPT), after the vacuum test. The Helix test used conforms with ISO 11140.6:2022.

  or

- Batch monitoring test is performed using Class 6 emulators for each cycle.
- Biological spore testing is performed weekly and recorded in the testing

register.

15.1 Chemical indicators

In our practice, chemical indicators certified to international (ISO) standards are used according to manufacturers' instructions to show that certain temperatures, times and pressures have been reached during the sterilising process.

Every load of a steam steriliser includes a Class 1 process indicator included in the load to indicate the load has been heated.

Class 1 chemical indicators are placed in each load if non-bagged items are processed.

Class 1 indicators are included on the outside of each wrapped package as a visual check following sterilisation.

Class 2 chemical indicators are used inside air removal and steam penetration tests (ARSPT).

Where instruments are intended to be sterile at the point of use, and full verification of cycle parameters has not yet occurred (e.g. a steriliser being used is a loaner unit), Class 4–6 indicators are included within each package.

All staff in our practice are trained in how to interpret chemical indicators for the required colour change at the end of a cycle. Chemical indicators have a defined shelf life and we manage this in our practice by ensuring that stock of these indicators is never used past the expiry date. Expiry dates of all items in the Practice are checked monthly.

Unused chemical indicators are stored in cool dry places. Once used in a steriliser cycle, the results of the test are recorded (pass/fail) in the register logs and the used chemical indicators are then discarded.

15.2 Biological indicators

Our practice performs an annual verification of lethality (killing of microorganisms) using endospores in biological indicators. This shows that endospores of heat-resistant bacteria are killed by the cycle parameters used in our steam sterilisers. The process for this involves three sequential cycles with at least two biological indicators ('endospore tests') placed in a package of the most difficult size/shape that is then placed in the 'cold spot' of the chamber (larger packages will need more than 2). These test packages are used in three

successive cycles. This is performed by Pegasus Dental.

Testing of each steam steriliser using biological indicators is also done at least once per week, and whenever there is a change in the type of packaging material used.

16. Checking the completed load

Regular monitoring of the sterilisation cycle is necessary to ensure the sterility of reprocessed instruments.

On completion of each sterilisation cycle in our practice, staff remove the load from the steriliser and perform a visual inspection using the following process - ensure that the load is dry, that any sterilising indicators have made the required colour change and that packaging is intact before being transferred to storage areas. Damp or damaged packs (with broken seals or perforated packaging) are removed from circulation and considered contaminated. Those items must be reprocessed in full.

Technique:

1. Ensure that the door of the steam steriliser remains closed during the drying cycle. Items are not to be cooled by fans or boosted air conditioning.
2. Prior to the removal of the load, the Dental Assistant checks the data display for correct parameters.
3. They then check the Class 1 chemical indicator in the chamber.
4. The staff member uses a suitable tray lifter to remove items.
5. As they remove each package, the staff member checks each package for dampness and for damage to the seals or to the packaging itself. Packaged items that are wet, and packages that are torn or have broken seals, which are inadvertently dropped and therefore are contaminated, are non-conforming. The instruments must be removed, and re-packaged for later sterilisation.
6. Immediately thereafter, the hot sterilised packages are placed on racks to cool, not on flat surfaces such as benchtops where condensation can occur. For the same reason, items with plastic dust covers are not covered while they are still hot.
7. The operator signs the designated record log, or otherwise notifies the Principal Endodontist if a failure of any parameter is detected. In this case the entire contents of the load are to be re-sterilised (after repackaging).

8. If any variation from standard performance occurs, or equipment failure is observed:
    - The Principal Endodontist is notified of the problem
    - These issues are documented in the incident register.
    - The Principal Endodontist will instigate repairs

Recall process

If non-sterilised packages have been accidentally released back into clinical circulation, a full check of all packs and pouches will be instituted to remove any items that are not showing satisfactory results for Class 1 and Class 6 indicators. This should include aspects such as:

- Identification of the relevant batch of suspect packages of instruments – where are they, have they been used, and if so, on whom?
- Withdrawal of packages from circulation, with the contents being re-packaged and re-sterilised.
- Documentation around how the incident was noted or detected, and what actions followed. A root cause analysis will be needed to identify responsible factors and contributing factors and determine preventative actions to stop recurrence of such events

17. Storage of processed instruments

In our practice, sterile packaged instruments are stored in a clearly designated clean and dry area, protected from contamination. The storage of sterilised items occurs in racks in designated cupboards in our practice.

Technique:

1. Wrapped loads are carefully stored in a manner that prevents environmental degradation and maintains the integrity of the barrier function of the packaging during storage. This means (a) protected from direct sunlight and strong air currents; (b) away from any open windows; (c) in a place where the temperature and humidity are not excessively high; (d) away from splashes of fluid; (e) ideally in cupboards and drawers, in a manner that assists in stock rotation, with no stacking of heavy items; (f) preferably not on open shelving, and if so, at least 250 mm above floor level and at least 400 mm away from ceiling fixtures.

2. The integrity of bagged/wrapped packs of instruments is checked in the clinic before use by the Dental Assistant who checks the integrity of the outer wrap, the integrity of seals on all sides of packaging, the correct labelling including package contents and the correct colour change of the external chemical indicator. Packages showing damage and packages beyond the expiry date are not used.

F. Dental areas and equipment

Particular dental care procedures and items of equipment require specific infection control processes. In all cases, the information provided by the item's manufacturer for reprocessing is followed. Manufacturers are required to conform to ISO 17664.1:2021[10] for all RMDs that are intended to be sterilised, or to ISO 17664.2:2021[11] for items that are not intended to be sterilised.

1. Curing light

Curing light tips are semi-critical pieces of equipment. In our practice, these have an appropriate barrier placed over the tip for each patient. The handle of the curing light and its tips are cleaned prior to having the barriers placed, and a new barrier is used for each patient. These items are wiped with a neutral detergent wipe.

2. Air abrasion, electrosurgery units and lasers

3. Dental radiology

Direct imaging sensors that have been placed in a patient's mouth to record radiographic images need to be protected with custom-made barriers to prevent them becoming contaminated with saliva.

Technique:

1. Wear gloves and other protective equipment when handling contaminated film packets or sensors.

2. Clean the parts of radiography equipment that touch patients or are touched with contaminated gloves at the end of the appointment (e.g. radiograph tube head and control panel).They are covered with a barrier that is then replaced.

---

[10] *Processing of health care products. Information to be provided by the medical device manufacturer for the processing of medical devices. Part 1: Critical and semi-critical medical devices*
[11] *Processing of health care products. Information to be provided by the medical device manufacturer for the processing of medical devices. Part 2: Non-critical medical devices*

3. Clean and cover digital radiography sensors between patients. In our practice we use Dentsply barriers that are customised for Dexis sensors.

4. Clean film-holding and positioning devices between patients in the washer disinfector.

4. Implants

This practice does not perform surgical implant placement.

5. Impressions

This practice does not take physical impressions.

6. Dental prosthetics

This Practice does not supply or work with dental prosthetics.

7. Matrix bands

Metal matrix bands are not used in this Practice.

8. Dental handpiece and bur management

All dental handpieces are cleaned, lubricated and sterilised in accordance with the manufacturer's instructions for use. In our practice, dental handpieces, ultrasonic scalers and scaler inserts are sterilised between patients.

Technique:

1. Flush restorative handpieces before detaching them from their couplings. After removing the handpiece, flush the waterline into the high-volume suction or into the spittoon according to the manufacturer's instructions.

2. Wipe the external surfaces of handpiece with a detergent-impregnated wipe until any visible material is removed.

3. Clean and lubricate the internal aspects of the handpiece as directed by

the manufacturer in the Assistina device after they have been through the washer disinfector.

4. Take care to ensure that excessive lubricant does not remain, as it could compromise the sterilisation process. Use the additional air gun to remove any excess oil

5. Sterilise restorative handpieces in a steam steriliser using a B cycle.

For the management of burs and ultrasonic scalers in our practice:

- Burs are disposed of after use in the sharps container chairside.
- Ultrasonic scaler tips are packaged so that they are sterile at the point of use in sterile pouches.
-

9. Specimens

Gloves are worn when handling pathology specimens and specimen containers. Each biopsy specimen is placed in a sturdy, leak-proof container labelled with the biohazard symbol before dispatch.

If a biopsy specimen container is visibly contaminated, staff clean and disinfect the outside of the container before placing it into the transport bag or container by the Endodontist performing the biopsy.

10. Endodontic irrigants

TGA-certified sodium hypochlorite endodontic irrigant solutions are intended to assist debridement, cleaning and chemical breakdown of pulpal soft tissues of the root canal. In our practice we use Endosure irrigants.

11. Gutta percha points

Gutta percha points are supplied disinfected by Diadent. Sterilised tweezers are used to handle gutta percha points.

12. Hand operated endodontic files

Stainless steel endodontic hand files are treated as single-use items in our practice, and are disposed of after use.

13. Rotary nickel-titanium (NiTi) endodontic files

In our practice, rotary nickel-titanium files are single-use. Where not supplied sterile, they are packaged in sterile pouches and sterilised before use.

All endodontic files are disposed safely after use in is a clearly labelled, rigid, puncture-resistant, approved yellow sharps container, conforming to the current version of AS 4031.[12]

14. Relative analgesia equipment

This practice does not use relative analgesia.

15. Domiciliary care and visits to residential aged care facilities

This practice does not provide treatment to patients at home, or in aged or other care facilities.

G. Transmission-based precautions

Transmission-based precautions are applied in our practice where there is suspected or confirmed infection. Such precautions are tailored to the infectious agent to prevent its mode of transmission (airborne, droplet or contact).

Information on the requirements for transmission-based precautions is given in the NHMRC 2019 Guidelines and in the current ADA IPC Guidelines.

The application of transmission-based precautions is particularly important in containing multi-resistant organisms (MROs) and in the management of highly contagious

---

[12] *Non-reusable containers for the collection of sharp medical items*.

infections that cause outbreaks, e.g. viral influenza, coronaviruses, monkeypox virus, multiple-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), norovirus or other forms of gastroenteritis in institutions (such as hospitals and residential aged care facilities).

1. Contact precautions

Contact precautions are applied in our practice when there is a known or suspected risk of direct or indirect contact transmission of infectious agents that are not effectively contained by standard precautions alone. Infectious agents for which droplet precautions are indicated include MRSA, VRE, *Clostridium (Clostridioides) difficile* and highly contagious skin infections or infestations.

The additional steps include the following.

- Use a detergent product with added disinfectant (2-in-1 clean) for cleaning surfaces.
- Use disposable items where it is practical to do so.
- For impressions, use a disinfectant as well as detergent for decontamination.

2. Droplet precautions

Droplet precautions are applied in our practice, in addition to standard precautions, when patients are known or suspected to be infected with agents transmitted by large respiratory droplets (more than 5 microns in diameter) produced by coughing, sneezing and talking. Such infectious agents may also require contact precautions. Infectious agents for which droplet precautions are indicated include SARS-CoV-2 (COVID-19), monkeypox virus, human influenza virus, respiratory syncytial virus (RSV) and meningococcus infections.

In our practice, staff explain the importance of respiratory hygiene, droplet precautions and cough etiquette to patients. Our practice waiting room has availability of tissues, ABHR and a waste bin so that patients can practice respiratory hygiene and cough etiquette.

Technique:

- When patients who are unwell (symptomatic with a respiratory infection transmitted by droplets) contact the practice, triage them prior to the

appointment by telephone for symptoms of active respiratory viral infection. Unless fully set up for appropriate transmission-based precautions, defer treatment and refer urgent cases.

- Ensure that for vaccine-preventable diseases (VPDs), staff who are in the clinic providing care have current immunity (e.g. they have had the current influenza vaccine, if treating a patient who is unwell with viral influenza).
- Schedule the patient as the last patient of the day.
- Use appropriate PPE, including protective eyewear and high-filtration surgical masks that are adapted closely to the face.
- Minimise the generation of infectious aerosols by using:
    - pre-procedural antimicrobial mouth rinse
    - proper patient positioning
    - high-velocity suction with a wide-bore tip (8–10 mm).
- Use techniques that avoid the generation of aerosols (e.g. hand scaling rather than ultrasonic scaling, reducing coolant spray flow rates).
- Place infected patients away from other patients (social distancing). They can be asked to wear a mask while seated in the waiting room.

3. Airborne precautions

Airborne precautions are applied in our practice when patients are known or suspected to be infected with agents that are transmitted person-to-person by the airborne route. These airborne droplets are highly contagious and include measles (rubeola), COVID-19, chickenpox (varicella) and tuberculosis (TB).

See the ADA *Risk Management Principles for Dentistry during the COVID-19 Pandemic* for specific advice for aerosol precautions for COVID-19. Note that full airborne precautions as per the NHMRC 2019 Guidelines will not be possible in many practice settings due to the absence of negative pressure rooms, and because not all staff have been through a formal fit testing procedure for the wearing of P2/N95 particle filtration respirators.

Technique:

- Triage patients prior to the appointment by telephone for symptoms of

active respiratory viral infection. Unless fully set up for airborne transmission-based precautions, defer treatment and refer urgent cases.

- Review the requirements for airborne precautions, and determine if the practice is properly set up to undertake these measures (e.g. suitable PPE).

- Patients are to follow respiratory hygiene and cough etiquette.

- Patients are given a correctly fitted surgical mask to reduce dispersal of their secretions.

- Staff are to use appropriate PPE including correctly fitted P2/N95 surgical particulate filter respirators that meet AS 1716:2012[13] to prevent the inhalation of small infectious particles (less than 1 micron in size).

- Staff are to minimise the exposure of other patients and staff members to the airborne infectious agent, by undertaking the following additional measures.
    - Schedule the patient as the last patient of the day.
    - Ensure that for vaccine-preventable diseases, staff providing care have current immunity (e.g. current influenza immunisation if treating a patient who has influenza, tuberculosis immunity (e.g. Mantoux test positive from past vaccination with Bacille Calmette-Guérin (BCG) if treating a patient who has active tuberculosis).
    - Minimise the generation of aerosols by using:
        - pre-procedural antimicrobial mouth rinse
        - proper patient positioning
        - high-velocity suction with a wide-bore tip (8–10 mm)
        - Techniques that avoid the generation of aerosols (e.g. hand scaling rather than ultrasonic scaling).

4. Transmission of blood-borne viruses (BBVs)

Blood-borne viruses (BBVs) include hepatitis B, hepatitis C and HIV. These viruses are transmitted primarily by blood-to-blood contact. All patients treated in our practice are treated as potentially infectious and standard precautions are always applied. These protect all our staff and patients from spreading these infections in the clinical workplace.

Patients with confirmed hepatitis B, C or HIV are treated using standard precautions, and the same cleaning and sterilisation techniques are used as for

[13] Respiratory protective devices.

other patients.

5. Transmission of Creutzfeldt-Jakob disease (CJD)

Creutzfeldt-Jakob disease (CJD) is a fatal human prion disease belonging to the transmissible spongiform encephalopathies (TSEs).

No special precautions are needed for routine dentistry, since prions are not found in oral soft tissues, bone, teeth or saliva. Patients with suspected or confirmed prion diseases can undergo dental treatment, including dentoalveolar surgery, in the normal manner.

Instruments used in routine dental and endodontic procedures can be routinely reprocessed for all patients with potential Creutzfeldt-Jakob disease (CJD) infection.

Only oral and maxillofacial surgery involving the central nervous system requires additional measures, including instrument tracing that relates a patient to an instrument, rather than just an instrument to a sterilisation cycle.

For more information see the NHMRC CJD Infection Control Guidelines.

6. Transmission of MRSA

The methicillin-resistant *Staphylococcus aureus* (MRSA) bacterium is resistant to common antibiotics, and its ensuing infections are very difficult to treat.

If a patient in our practice is identified as an MRSA carrier, contact precautions are applied. These include wiping of all surfaces touched by the patient (ideally using a product containing detergent as well as a disinfectant (a 2-in-1 clean), or alternatively a 2-step clean (physically cleaning with a detergent, followed by physically cleaning with a disinfectant)), and ensuring minimal contamination of surfaces during treatment of the patient and resulting waste disposal.

If a staff member in our practice becomes an MRSA carrier (i.e. known to be colonised with MRSA), they must check with hospital policy prior to participating in procedures in that particular hospital.

7. Transmission of influenza viruses

Human influenza viruses are widely prevalent in the community, with a high number of infections, including severe infections and death, particularly in the very old and the very young.

Influenza viruses are most commonly spread by airborne transmission. People can inhale infectious droplets produced when infected people talk, cough and sneeze. Transmission may also occur through direct and indirect contact with material that is on surfaces. The virus may persist on hard surfaces such as benchtops for 1–2 days.

In our practice, we encourage patients with influenza infection to delay dental treatment until they are no longer infectious (i.e. more than 72 hours after receiving anti-influenza medications, or more than five days since the onset of respiratory symptoms in adults (2 weeks for young children)). We encourage strongly all staff to have annual influenza vaccinations, which is in line with national policies that recommend this for all health care workers.

7.1 Avian influenza infections

While avian influenza viruses usually only infect birds, they can cross species and infect people. When this happens, a global pandemic occurs and widespread severe illness is likely. Some avian influenza viruses, such as H5N1 and H7N9, are highly pathogenic and can cause severe and fatal infections in humans. Like human viral influenza, avian influenza can spread rapidly from the point of origin within the community, and particularly within healthcare settings.

Transmission-based precautions will be essential should any avian influenza enter Australia as a human-to-human transmitted virus. These are the same precautions as used for patients suffering from viral influenza who need urgent dental treatment that cannot be postponed.

7.2 Coronavirus infections

There are four endemic coronaviruses in circulation that cause influenza-like illnesses. In addition to these, since early 2020, SARS-CoV-2 (COVID-19) has also been circulating in Australia, with a high number of infections and adverse outcomes including severe infections and death, especially in elderly patients and immune-compromised patients. COVID-19 is spread by airborne, droplet and contact transmission. People can inhale infectious droplets produced when infected people breathe, talk, sing, shout, cough or sneeze. Transmission may also occur through direct

and indirect contact with material that is on surfaces. The virus may persist on hard surfaces such as benchtops for several days.

In our practice, we follow local public health advice based on the Communicable Diseases Network Australia (CDNA) Series of National Guidelines (SoNGs). We triage patients to avoid having those with active (symptomatic) COVID-19 infection in the clinic. We delay dental treatment until they are no longer infectious (e.g. 7 days after becoming ill if free of symptoms and meeting release from isolation criteria). We strongly encourage all staff to have recommended COVID-19 vaccinations (including boosters), in line with national health advice for health care workers. We expect that staff who contract COVID-19 will self-isolate after becoming ill, and seek antiviral therapy where appropriate, but return to work if free of symptoms and meeting release from isolation criteria. Staff who test positive but who are well (free of symptoms) will avoid entering high-risk settings (such as residential aged care facilities, disability care facilities and hospitals) until at least 7 days following their positive test result.

7.3 Other pandemics

At the national level and for each jurisdiction there are specific plans for handling pandemics at the public health level. Likewise, each practice needs to have a plan to ensure ongoing service provision during pandemics. Such plans may include limiting operation, and screening and exclusion periods. Given that some common dental procedures (including using the triplex spray) generate considerable amounts of aerosols, it is important to follow the ADA IPC Guidelines and any other pandemic-specific guidance offered by the ADA at the time.

H. Immune system considerations

Immune system considerations can cause increased disease-susceptibility to acquiring infection in the workplace, or increase the likelihood of an allergic response occurring in patients or staff.

1. Immunisation

Dental practitioner/s and staff in our practice are at increased risk of exposure to vaccine-preventable diseases because of their close contact with patients. Our practice has an immunisation education program for staff to understand the risks posed by patients with active infections of conditions such as tuberculosis, measles, chickenpox, COVID-19 and viral influenza, which can be prevented by immunisation.

Prior to commencing employment, all staff who work chairside or in instrument reprocessing are requested to complete a statement of their past vaccination history, which includes their status for hepatitis B immunity, and whether or not they are positive for hepatitis C and HIV. This information could come on a pro forma that is completed by their own medical doctor. Successful immunisation for hepatitis B and other relevant conditions is essential prior to commencing clinical work.

Our practice maintains regularly updated staff immunisation status records which are located on the Practice Tablet.

To ensure that their immunity is current, our staff are offered the vaccinations recommended by the current edition of *The Australian Immunisation Handbook (*available online from www.immunisationhandbook.health.gov.au). The current vaccination recommendations for dental clinical staff include hepatitis B, varicella (chicken pox), MMR (measles-mumps-rubella), pertussis dTpa (whooping cough), influenza (with annual immunisation), hepatitis A (for dental staff who work with remote indigenous communities and patients with intellectual disability), COVID-19 and BCG (for dental staff at high risk of exposure to drug-resistant cases of tuberculosis).

Each staff member has the right to refuse vaccination. Such refusal is documented, with the reason for refusal noted and signed in that staff member's immunisation record book.

Staff are advised of the potential consequences of non-immunisation. Refusal to be vaccinated for some diseases may see staff member/s not able to work in

some settings or undertake some procedures. For example, a dental assistant who has not had the current vaccine for human influenza virus should not be assisting chairside when undertaking the urgent dental treatment of a patient who is known or suspected to be actively infected with influenza, as they are likely to contract the infection from inhaling the aerosols generated in the workplace from the procedure.

2. Immune-compromised patients

The dental practitioner/s in our practice take extra care in treating immune-compromised patients, as this group is more susceptible to infection.

Practitioners in our practice take each patient's medical history to establish if they may be more susceptible to infection and require transmission-based precautions to prevent infection (e.g. patients with leukaemia or neutropenia may require antibiotic prophylaxis). A risk assessment specific to the patient and their situation is always undertaken.

3. BBV transmission from staff or patients

The Dental Board of Australia requires dental practitioners to make a declaration on registration and re-registration that they are aware of their blood-borne virus status and that they will comply with the CDNA National Guidelines.

All registered dental practitioners who perform exposure-prone procedures have a legal, professional and ethical responsibility to know their infection status for BBVs, and to be tested at least once every three years for antibodies to hepatitis B, hepatitis C and HIV, as per the CDNA National Guidelines.

Other dental staff who work chairside or come into contact with items that have been used on patients (e.g. dental assistants and dental technicians) should know their infection status for BBVs.

In our practice, if a dental practitioner or staff member knows or suspects that they have been infected with a BBV, they will report their infective status to the Principal Endodontist within the practice, seek expert medical advice and follow the CDNA Guidelines, which stipulate the pathways for treatment, and how they will be managed by an appropriately experienced medical practitioner or infectious disease specialist who is familiar with the requirements of dental practice. This includes seeking treatment and modifying their clinical practice where appropriate, in accordance with the relevant policies and guidelines of

the Dental Board of Australia and CDNA.

4. Allergy management

Our practice maintains an allergy record for each member of staff. The Principal Endodontist is responsible for ensuring staff allergy records are complete and up to date, where are the records stored, for how known staff allergies are managed within the practice.

4.1 Chlorhexidine allergy

Chlorhexidine can cause anaphylaxis in allergic individuals. In our practice, staff using chlorhexidine products (e.g. mouth rinse) are aware of the potential risks of allergic responses. Accordingly, we do not apply chlorhexidine rinses, irrigants or gels directly to bleeding sites (e.g. by subgingival irrigation during periodontal debridement) or by irrigation into extraction sites. Likewise, chlorhexidine-based handwash is not used on a routine basis.

4.2 Latex allergy

Suspected natural latex allergy (NLA) in dental practitioners, staff or patients is treated as a serious medical issue in our practice. Staff are aware that reactions to gloves are most often irritant dermatitis (not an allergic response) or are a delayed allergic response to polymerising (crosslinking) chemicals that may be found in all types of glove materials, which are much more common than allergies to latex.

All patient medical histories and new staff employment forms include questions about NLA and/or sensitivity or allergy to latex/rubber products.

In our practice:

- Staff use moisturising agents and look after the health of the skin of their hands, to prevent problems such as irritant dermatitis.
- Our staff are aware that symptoms of delayed hypersensitivity include itching and rash, which develops over several days.
- If a staff member has a proven or suspected delayed hypersensitivity allergy to a polymerising agent used in dental gloves, they are provided with hypo-allergenic gloves to use.

- If a staff member or patient has a proven or suspected allergy to latex, non-latex alternatives are used and a latex-free dental environment is created through the use of non-natural rubber latex products that meet Australian Standards and are listed with the TGA. Those non-latex gloves are stored in a separate area from latex gloves.

- Practice staff with a proven history of anaphylactic reactions to latex wear a medical alert and carry self-injectable adrenaline.

- Our staff are aware that symptoms of an acute allergic anaphylactic reaction include flushing, swelling and wheezing, which may progress if untreated to collapse and death

- Our staff are aware of the correct first aid procedures to be followed in the event of an acute allergic reaction, including the use of self-injectable adrenaline.

- If the skin of staff or patients develops a reaction upon contact with or near latex, this will be brought to the attention of the Principal Endodontist.

Appendix: Managing exposure incidents

A blood and body fluid exposure (BBFE) incident refers to any instance where a contaminated item breaches the integrity of the skin or mucous membranes or comes into contact with the eyes.

An exposure-prone procedure (EPP) is a procedure where there is a risk of injury to the staff member resulting in exposure of the patient's open tissues to the blood of the worker. These procedures include those where the worker's hands (whether gloved or not) may be in contact with sharp instruments, needle tips or sharp tissues (spicules of bone or teeth) inside a patient's open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times. This definition of an EPP in dentistry includes oral surgical procedures (including the surgical removal of teeth, periodontal surgery, implant surgical procedures, endodontic surgery).

To comply with work health and safety legislation, all exposure incidents in our practice are recorded and followed up. Our practice has a system of reporting, monitoring and rectifying breaches of infection control protocols through the incident reporting register.

All staff involved in an adverse incident will be provided feedback, education and training to reduce the possibility of future incidents through a specific staff meeting regarding the incident.

Blood and body fluid exposure protocol

To prevent the transmission of BBVs in our practice, our staff actively avoid exposure to patients' blood via a penetrating injury or contact with blood, saliva or other body fluids, or tissues. A detailed blood and body fluid exposure (BBFE) protocol is in the Appendix of the current ADA IPC Guidelines.

Technique:

1. Staff use standard precautions for all clinical work and when reprocessing instruments.
2. Staff use devices engineered to prevent sharps injuries.
3. Staff follow the CDNA guidelines for management of their own health after a workplace exposure incident and comply with instructions from the relevant medical professional.

Spill protocol:

1. Use artery forceps to pick up objects and then place them into a yellow infectious waste bag. Place single-use sharps that have been dropped directly into the sharps bin.

2. Blood spills: using examination gloves, remove blood with absorbent materials and place these into the infectious waste.

3. A waste spill kit for large blood spills (>10 mL volume) is located in each clinic, at Reception, and in the bathroom.

4. Contain waste as sharps or clinical, as appropriate.

Should a staff member acquire an infection after an exposure incident, the Principal Endodontist will comply with the CDNA Guidelines and the Dental Board of Australia's Code of Conduct. The following details will be documented in the practice's incident register, with appropriate management personnel advised of:

- date of the incident
- patient details
- staff member details
- details of incident
- outcome of the incident
- action required for patient care
- whether the incident occurred due to an error in any infection control procedures
- steps taken prior to the provision of care to reduce the possibility of cross-contamination
- action required to prevent recurrence of this type of event
- action required to improve the efficiency of the infection prevention and control process
- relevant authorities notified as required.

Follow-up tests are offered after a significant exposure incident, and blood samples for testing are obtained from the source.

1. First aid technique

1. Immediately stop work, regardless of the situation.

2. For skin penetrating injuries, allow the wound to bleed and clean it thoroughly with soap and lukewarm water, then apply a waterproof dressing to the wound. Do not squeeze the wound. Do not apply disinfectants to the wound.

3. Flush mucous membranes/conjunctiva with normal saline or water. If contact lenses are worn, remove after flushing eye and clean as usual.

4. Further management of the wound is dependent on the injury and the Endodontist in charge should be consulted.

5. If the source patient is HIV-positive seek urgent expert medical advice from an infectious disease specialist regarding whether post-exposure prophylaxis (PEP) is warranted or not. This is important because PEP for HIV should be administered within 72 hours of the exposure event, and the sooner the better within this period of time. The specialist will be able to make an informed decision based on the patient's known viral load and the characteristics of the exposure event. Contact Sutherland Hospital Emergency Department.

6. The injured staff member requires baseline tests and follow-up tests after the exposure incident where it is rated as significant, particularly after 'contaminated' sharps injuries.

7. When a situation arises where there is a need to know the infectious status of a patient (such as a sharps injury), the patient has a right to choose whether they wish to provide information or consent for testing. Explaining to the patient how this knowledge can assist in the management of the injured staff member may assist in gaining the patient's co-operation.

2. Testing

Baseline tests are requested from the injured staff member and the patient to establish their immune status as soon as possible after the injury.

If the source individual tests positive for hepatitis B, hepatitis C or HIV, an infectious disease physician will conduct an assessment of the injured person to assess infectivity. Post-test counselling may also be required, particularly if the result is positive. If the source patient refuses testing, this is documented in their treatment records.

It is then important to follow the CDNA Guidelines and the relevant medical advice regarding the need for further testing, as this will be dictated by the nature of the exposure event and the characteristics of the source. A decision on the need for a three-month follow-up test may be made. Beyond that time point, no further follow-up of the exposed staff member is likely to be necessary if blood tests at baseline showed the source patient was negative for a BBV, unless the source patient was suspected or shown to be seroconverting one of these viruses or at high risk of BBV because of their behaviours.

Staff members who are commencing work in dentistry (either chairside or in instrument reprocessing) need to have completed, as a bare minimum, immunisation for hepatitis B (the first injection) before commencing work whether or not they may have been exposed to hepatitis B. Once the course of three injections is complete, a test for antibodies to hepatitis B surface antigen is required the following month to document immunity to hepatitis B. This immunity, once demonstrated, confers lifelong protection from infection with hepatitis B. After the full course of hepatitis B injections is complete, it is normal to see a drop in their level of antibodies over time. Information on correct protocols to handle staff who are low responders or non-responders is found in the Australian Immunisation Guidelines. Normally, there is no need for further booster injections; however, these will raise the level of antibody that is present.

3. Follow-up for the injured person

For exposures where there is a risk of transmission of either hepatitis C or HIV (e.g. the source patient is positive for either hepatitis C or HIV, and has a high viral load), the injured staff member is re-tested for antibodies to hepatitis C and antibodies to HIV over the next six months, typically at one, three and six months after the incident. These tests are in addition to their baseline test.

The responsible medical practitioner may request additional tests (e.g. liver function tests, for hepatitis C). Seek advice from an infectious diseases physician and/or gastroenterologist.

Only a very small proportion of occupational exposures to HIV or hepatitis C result in transmission of the virus. The injured person should seek advice from an infectious diseases physician, who will provide information and may

recommend further counselling to support them.

Management pathways for infected healthcare workers are given in the CDNA guidelines.