Infection prevention and control practice standard

December 2024

Dental Council
Te Kaunihera Tiaki Niho

Standards Framework

The Dental Council (the "Council") is legally required to set standards of clinical competence, cultural competence and ethical conduct to be observed by all registered oral health practitioners ("practitioners"). This means that compliance to the Council's standards by practitioners is mandatory.

The Council has established a Standards Framework which defines the ethical principles, professional standards and practice standards that all practitioners must meet.

There are five ethical principles that practitioners must adhere to at all times.

Practitioners must:

- Put patients' interests first.
- Ensure safe practice.
- Communicate effectively.
- Provide good care.
- Maintain public trust and confidence.

Each of the five ethical principles is supported by a number of professional standards which articulate what a practitioner must do to ensure they achieve the ethical principles.

The professional standards are, in turn, supported by practice standards which relate to specific areas of practice that require more detailed standards to enable practitioners to meet the professional standards and ethical principles.

A copy of the Standards Framework is available on the Dental Council's website.

Purpose of the Infection prevention and control practice standard

Effective infection prevention and control practices support safe work practices and help protect the health and safety of the public of Aotearoa New Zealand.

The purpose of the Infection prevention and control practice standard is to set minimum standards that must be observed by all practitioners to:

- eliminate or reduce the number and quantity of infectious agents in the oral health practice environment; and
- prevent the transmission of infectious agents from any person within the practice environment to another, and from one item or location to another item, location or person.

Compliance

Practitioners have a legal responsibility to meet the standards contained in this practice standard, and must be able to demonstrate this to the Council.

Practitioners must ensure that:

- their own clinical practice related to the prevention and control of infection meet the standards; and
- these standards are fully met in the practice[1] in which they work.

The standards set by the Council are minimum standards which are used by the Council, the public of New Zealand, competence review committees, professional conduct committees, the Health and Disability Commissioner, the Health Practitioners Disciplinary Tribunal and the courts, to measure the competence, performance and conduct of practitioners.

A failure to meet the Council's standards and adhere to the ethical principles could result in Council involvement and may impact on the practitioner's practice.

Sometimes factors outside of a practitioner's control may affect whether or not, or how, they can meet the standards. In such circumstances, practitioners are expected to adhere to the ethical principles, demonstrate insight and use their professional judgement to determine appropriate behaviour.

Practitioners must be able to justify their behaviour when this is contrary to the standards, and document their reasons.

Where practitioners delegate responsibility for infection prevention and control associated tasks, practitioners remain accountable and responsible for understanding the standard and how the processes meet the standards.

Acknowledgements

The standards acknowledge the requirements of the Australian standard AS 5369:2023 *Reprocessing of reusable medical devices and other devices in health and non-health related facilities.*

The Infection prevention and control practice standard is founded on a number of different sources, including the Australian standard on reprocessing of reusable medical devices[2]; the New Zealand Dental Association's code of practice and the Australian Dental Association's guidelines, the Scottish Clinical effectiveness - instrument decontamination guidance[3]; and other international guidelines/standards. It has been developed in consultation with a working group comprised of subject-matter experts and New Zealand registered oral health practitioners.

[1] The "practice" is defined as all settings in which registered oral health practitioners perform activities associated with their scope of practice.
[2] Australian standard AS 5369:2023 *Reprocessing of reusable medical devices and other devices in health and non-health related facilities.*
[3] https://www.sdcep.org.uk/published-guidance/decontamination

Standards for infection prevention and control

1	You must demonstrate understanding about infection prevention and control systems and regularly refresh your knowledge.
2	You must ensure practice-specific procedures and infection prevention control records comply with the Dental Council Infection prevention and control practice standard, are documented, readily accessible, and reviewed annually.
3	You must apply proper techniques for hand washing and use of alcohol-based hand-rub at the correct times; and routinely practice other hand hygiene protective measures.
4	You must ensure personal protective equipment is readily available and used properly during all procedures and activities when contact with blood or saliva is possible, and/or when aerosols, splashes or sprays are generated.
5	You must ensure the safe handling and disposal of sharps.
6	You must ensure the safe handling and disposal of hazardous and controlled waste.
7	You must minimise the degree and extent of contamination within a contaminated zone, and avoid spread of contamination to a clean zone.
8	You must ensure you achieve and maintain a safe and clean clinical environment by: a. effective cleaning of all surfaces, equipment and instruments. b. discarding single-use items at point of use. c. maintaining safe waterlines. d. following local authority advice for the use of water, in the event water becomes contaminated or unpotable.
9	You must follow appropriate transmission-based precautions when the patient has an infectious condition that cannot be contained by standard precautions alone and treatment cannot be deferred. If you are unable to defer treatment or follow transmission-based precautions, you must refer appropriately.
10	You must manage contaminated items being sent off-site in a way that protects safety of people and avoids environmental contamination.
11	You must ensure the appropriate handling and disposal of materials used in the repair or modification of dental appliances which have been in contact with the patient’s mouth.
12	You must ensure you use reprocessing procedures appropriate for the intended use of contaminated reusable items.

13	You must ensure an appropriate reprocessing area, with distinct areas for reprocessing procedures which facilitates reprocessing workflow from contaminated to clean.
14	You must ensure all contaminated reusable items are cleaned and dried appropriately.
15	You must ensure all reusable critical items are packaged and labelled with batch control identification information. By 1 January 2026, the batch control identification information of the critical item must be recorded on the patient's record.
16	You must ensure all reusable critical items are sterilised using a steam steriliser with an appropriate cycle type for the load processed.
17	You must ensure all reusable semi-critical items are sterilised using a steam steriliser with an appropriate cycle type, unless the manufacturer's instructions do not allow for steam sterilisation. In these cases, the items must be cleaned, followed by disinfection and adherence to manufacturer's validated instructions.
18	You must ensure all packaged items are processed in a steam steriliser with drying capability.
19	You must ensure the integrity of the sterilisation process. Monitor each cycle and use a steriliser equipped with a data recording device and/or printer.
20	You must ensure stored critical items remain sterile until point of use, and semi-critical and non-critical items are protected from contamination before re-use.
21	You must ensure appropriate function tests are conducted for reprocessing equipment at the correct times.
22	You must ensure reprocessing equipment is appropriately cleaned, daily maintenance checks are performed, and planned preventative maintenance is carried out at least annually.
23	You must ensure all validation stages (IQ, OQ and PQ), and annual performance re-qualification, are properly performed on-site for each steriliser and instrument washer-disinfector at the correct times, and by the appropriately trained personnel.
24	You must, in the event of an exposure to blood or body fluid, immediately stop working, apply first aid care, and follow appropriate procedures to minimise the risk of transmission of an infectious agent to yourself and/or the patient.

Infection prevention and control guidance

Guidance does not form part of the practice standards, but describes actions and behaviours that can enable practice standards to be met.

Throughout the document, the IPC standards are referenced above the relevant guidance.

Example

1	Practice standard
Guidance	
> Actions and behaviours that can enable practice standards to be met	

Contents

Introduction to guidance

The guidance is a practitioner resource and describes actions and behaviour that support them to meet the practice standard. The guidance reflects current infection prevention and control knowledge and accepted good practice in healthcare settings.

The guidance is presented in five parts:

I: Quality management system.

II: Standard precautions.

III: Reprocessing of reusable items.

IV: Monitoring and maintenance.

V: Blood or body fluid exposure procedures.

There will be times where alternatives are more appropriate to meet the practice standard, for instance when respecting patients' and staff cultural needs, or following equipment operating requirements.

Non-registered staff and students

The Council strongly recommends that all students[1] and non-registered clinical staff follow the Infection prevention and control practice standard to minimise the risk of transmission of infectious agents to patients and practice staff.

Practitioners are responsible for ensuring that individuals involved in infection prevention and control activities are trained to correctly perform the required tasks.

Vaccination

Vaccination is a key means of establishing immunity to a number of common infectious diseases, thereby reducing the risk of acquiring and further transmitting the disease.

The Council strongly recommends that all oral health practitioners, students and non-registered staff follow Ministry of Health immunisation guidelines to establish immunity against the common infectious diseases, relevant to their practice environment.[2]

Environmental sustainability

We recognise that the oral healthcare sector, as a whole supply chain, has a responsibility to undertake activities in a manner that seeks to improve the sustainability of oral healthcare interventions. This is a complex area, with many stakeholders, drivers and challenges.

The FDI *Consensus on environmentally sustainable oral healthcare*[3] identifies the following opportunities for sustainable practice are through reduction, reuse and recycling:

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[1] Students enrolled in Council–accredited programmes of study.
[2] Ministry of Health immunisation guidelines can be accessed at: https://www.tewhatuora.govt.nz/
[3] Consensus on Environmentally Sustainable Oral Healthcare: A Joint Stakeholder Statement (2022) (fdiworlddental.org)

- Reduction – by the patient and consumer end-user, through the promotion of preventive care and provision of good oral healthcare, in this way reducing the demand for surgical interventions and associated energy intensive products and processes.

- Reuse – throughout the supply chain, with a focus on clinical end-users when safe to do so. Reuse is more environmentally favourable than use of disposable single-use items (e.g. single-use wipes).

- Recycling – at the manufacturer and distribution level, with a focus on energy-efficient manufacturing, the design of recyclable end-user products, reducing unnecessary packaging and optimising distribution logistics.

New Zealand dental practices have a social responsibility to consider their environmental footprint and develop sustainable practice where possible.

The practice standard provides some examples of sustainability considerations such as minimising packaging, and reducing single use products to reduce environmental impact within the overall objective of infection prevention and control. Dental practices should consider opportunities to make a difference.

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Part I: Quality management system

A quality assurance programme requires that a practitioner takes a risk-based approach to reduce the potential for patients and healthcare workers to be harmed by avoidable infections.

A hierarchy of controls are applied to minimise risk in the workplace environment and are a wider part of infection prevention and control measures to control exposure to infections for healthcare workers.

“Practice-specific procedures” are the infection prevention and control measures that ensure safe work practices for the healthcare team, keep patients safe and enhance patient care.

The practice-specific procedures need to be documented in the policy and procedures manual, and regularly reviewed. They form a key component of the function, education and ongoing training of the oral healthcare team and enable compliance with the practice standard.

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Risk approach to infection prevention and control

Reducing infection risk involves implementing a five-step hierarchy of controls in the infection prevention and control systems.

1. **Elimination** or screening of the infection risk is the most reliable approach (but not always possible) e.g. triage, screening and restricting entry of potentially infectious people into the practice environment, virtual consultation, vaccination etc.

2. The second level of steps involve preparation by:
    - **Substitution** of the hazard with a safer alternative e.g. a change of chemicals.
    - Isolation of the hazard from people e.g. appropriate waste disposal.

3. The third step is to apply **engineering controls** e.g. optimised ventilation and air quality including air exchange rates, air flow and air filtration systems.

4. The fourth step in risk reduction is implementation of **administrative controls** to change the way people work e.g. practice-specific procedures for infection prevention and control measures, education and training, and incident management.

5. The fifth stage in the hierarchy is to protect the worker with the provision of **personal protective equipment,** good fit of PPE**,** and the appropriate use thereof**.**

The practice standard focuses on these various risk mitigation strategies.

Education

1 You must demonstrate understanding about infection prevention and control systems and regularly refresh your knowledge.

Guidance

- Risk assess your practice environment by identifying hazards and consider actions to control risk using the hierarchy of controls.
- Remain familiar with your practice-specific procedures (recorded in a policy and procedures manual) for infection prevention and control.
- Incorporate ongoing education and training about infection prevention and control in your professional development plan.
- Consider appointing an infection prevention and control coordinator in the practice. This person should be an existing staff member with a special interest in, and additional responsibility for infection prevention and control.
- Refresher training may be delivered in-house by an appropriately experienced, nominated staff member or an external provider.
- Other helpful resources on infection prevention and control principles include:

  Health New Zealand Te Whatu Ora Infection Prevention and Control

  World Health Organization Standard Precautions in Health Care.

Documentation

2

You must ensure practice-specific procedures and infection prevention control records comply with the Dental Council Infection prevention and control practice standard, are documented, readily accessible, and reviewed annually.

Guidance

- Record practice-specific procedures in a policy and procedure manual. A policy and procedures checklist is available in Appendix A.
- Implement annual internal audit to review your compliance with the Infection prevention and control practice standard.
- Reflect, identify actions, and record key learnings and changes as a result of the audit.
- Update the policy and procedure manual annually, or more frequently if issues or risk are identified.
- Keep infection prevention and control records for a minimum of 10 years, either as hard-copy or electronic records, and protect the confidentiality of this information. The infection and prevention control records are listed in Appendix A.

Part II: Standard precautions

Standard precautions are a set of routine infection prevention and control practices used to prevent transmission of disease-producing agents from blood, body fluids and secretions (for example, saliva), mucous membranes and non-intact skin.

Standard precautions are the basic level of infection control precautions which are to be used, as a minimum, in the care of all patients.

The key elements of standard precautions include:

> Hand hygiene, personal protective equipment, respiratory hygiene and cough etiquette, safe management of needles and sharps, aseptic techniques, safe disposal of waste, environmental cleaning and controls, cleaning and reprocessing of patient care equipment.

Particular infectious conditions may require measures additional to standard precautions, termed transmission-based precautions, to minimise the risk of transmission of the infectious agent.

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Hand hygiene

Hand hygiene is aimed at reducing the number of micro-organisms on hands and is the single most important measure for preventing the transmission of micro-organisms. The term hand hygiene includes both hand washing with liquid soap and the use of an alcohol-based hand rub (ABHR).

The use of an ABHR is the preferred method of hand hygiene in healthcare settings when hands are visibly and clinically clean (no visible bioburden). Hand washing is the advised method when hands are visibly dirty or contaminated with proteinaceous material, blood or other body fluids.

The World Health Organization describes the '5 moments of hand hygiene' in dental care as:

- Before touching a patient.
- Before a procedure.
- After a procedure or body fluid exposure risk.
- After touching a patient.
- After touching patient's surroundings.

An illustrated version is provided as Appendix C. These principles are applied in the guidance provided below.

3 You must apply proper techniques for hand washing and use of alcohol-based hand rub at the correct times; and routinely practice other hand hygiene protective measures.

Guidance

Proper hand hygiene techniques

〉 Proper hand hygiene techniques are described in the World Health Organization's guidelines for hand washing and ABHR use. Refer to Appendix D for illustration of techniques.

〉 Ensure your forearms are uncovered while practicing hand hygiene techniques.

Hand washing

〉 Wash your hands with a liquid soap, appropriate for use in a healthcare setting, at the following times:

- When your hands are visibly dirty or contaminated with proteinaceous material, blood or other body fluids.
- At the beginning and end of each clinical session.
- After using hands for personal hygiene e.g. going to the bathroom or cough hygiene.

〉 When washing your hands, use hand-wash basin dedicated for hand washing purposes that are fitted with non-touch tapware, or employ a non-touch technique.

〉 After hand washing, dry your hands using a single-use towel.

〉 Do not use an air-dryer for drying hands.

Alcohol-based hand rub (ABHR)

〉 When your hands are visibly and clinically clean and dry use an ABHR, specified for use in healthcare settings, at the following times:

- Before and after every patient contact.
- Before gloves are put on and after they are taken off.
- On entering and leaving the instrument reprocessing areas.
- After hands inadvertently touched contaminated environmental surfaces, instruments or other equipment.

〉 Apply the volume of ABHR specified by the manufacturer to dry hands, rub hands together until they feel dry; do not dry them with linen or paper towels.

Other hand hygiene protective measures

〉 Follow the measures below to prevent transmission of infection. Damaged skin harbours higher numbers of micro-organisms than intact skin, consequently the risk of skin infection and transmission of infection to others increases:

- Cover superficial cuts or open skin lesions with a waterproof dressing, even if gloves are worn over the affected area/s.
- Avoid patient contact if you have an exudative lesion or weeping dermatitis on the lower arms, hands or face that cannot effectively be dressed to prevent transmission, until the condition is resolved. (Note: These conditions are not necessarily infective in nature).
- Use an aqueous based hand moisturiser that is compatible with the hand hygiene products used, to maintain skin health.

〉 Follow the measures below to minimise the presence and growth of micro-organisms, to allow for optimal hand hygiene, and to maintain the correct fit and integrity of gloves:

- Adhere to a ‘Bare Below the Elbows’ approach by keeping arms, hands and wrists free of jewellery, watches, pedometers etc.
- Keep fingernails short and clean with no nail coating.

Personal protective equipment

Personal protective equipment (PPE) is a collective term for the clothing and equipment worn by health practitioners which acts as a barrier to protect their own tissues from exposure to potentially infectious material.
PPE includes: gloves; masks; protective eyewear; outer protective clothing; and enclosed footwear.

4

You must ensure personal protective equipment is readily available and used properly during all procedures and activities when contact with blood or saliva is possible, and/or when aerosols, splashes or sprays are generated.

Guidance

Use of PPE

〉 Wear appropriate PPE for any procedure or activity associated with a risk of contamination.

〉 Remove gloves, protective eye wear and masks before moving from a contaminated zone to a clean zone in your practice setting.

〉 When donning and removing personal protective equipment use sequencing that minimises the spread of contamination.

〉 Perform hand hygiene after removing PPE.

Gloves

〉 Wear properly fitting disposable gloves for all patients.

〉 Use a new pair of gloves for each patient.

〉 Replace gloves as soon as possible if they become soiled or damaged. Do not wash gloves or apply ABHR or disinfecting liquids onto the glove surface as this may damage glove integrity.

〉 Use gloves appropriate for the task:

- Wear non-sterile examination gloves for general dental procedures.
- Wear sterile gloves when a sterile field is required.
- Wear instrument grade utility gloves when reprocessing instruments and other devices.

Masks

〉 Wear a fluid-resistant surgical mask, at minimum Level 2 (Type IIR) that meets AS/NZS 4381.

〉 Fit and wear your mask in accordance with the manufacturer’s instructions, ensuring an adequate seal around both the nose and mouth. Avoid touching the front of the mask during patient treatment.

〉 Change your mask between patients and when damp or visibly contaminated during treatment. Remove by touching the strings and loops only, and discard immediately after use.

〉 Perform hand hygiene when changing mask.

Eye protection

〉 Wear protective eyewear that is fit for purpose, is optically clear and distortion free.

〉 Protective eyewear can be any of the following:

- Safety glasses with side vents (peripheral protection).
- Goggles.
- Prescription glasses covered with shield/visor or fitted with slide-on side/shield/vents. Prescription glasses alone are not considered eye protection.

〉 Supply your patient with protective eyewear before commencing treatment and ask them to wear it during treatment.

〉 Clean reusable protective eyewear between patients with an approved cleaning and disinfection wipe.

Protective clothing

〉 Wear an outer protective layer made from an impervious material intended to stop blood or other potentially infectious waste reaching clothes or skin beneath, or transfer contamination beyond the dental practice environment. A key concept is layering.

〉 This could be achieved by protective coats or gowns over streetwear or scrubs.

〉 When scrubs are worn as the practice uniform throughout the practice, it is necessary to wear a suitable outer protective layer on top of these. Alternatively, wear scrubs over another clothing layer and remove the scrubs before moving into a clean zone (for example when leaving the dental practice or before a lunch break).

〉 A short sleeve outer protective layer is suitable for routine dentistry as a standard precaution.

〉 Change short sleeve outer protective clothing as soon as possible when visibly soiled or wet, or when exposed to contaminated aerosols for prolonged periods of time, and at least daily.

〉 If you choose to wear a long sleeve gown as an outer protective layer, change as soon as possible when visibly soiled or wet, or when exposed to contaminated aerosols for prolonged periods of time, and between patients.

〉 While wearing an outer protective layer, limit your movement outside of the treatment area to involve only transient tasks such as escorting a patient from the waiting room or to the reception area.

〉 Remove outer protective clothing before leaving the treatment area for a break involving eating and/or drinking, visiting the bathroom, and before leaving the practice premises.

〉 Reusable outer protective clothing is preferred as it has smaller waste and environmental footprint.

- Launder reusable outer protective clothing domestically as a separate load at the hottest temperature the fabric can tolerate, or in a commercial laundry that provides services for healthcare settings[4].
- Place disposable outer protective clothing in the controlled waste after use, unless it is contaminated with blood to the extent that it qualifies as hazardous waste (refer to *Safe disposal of waste*).
- Wear fluid resistant outer protective layer when reprocessing.

Footwear

- Wear enclosed footwear that will protect your feet against injury from sharp objects or chemicals.

[4] As per Laundry standards AS/NZS 4146:2000.

Safe management of sharps

5 You must ensure the safe handling and disposal of sharps.

Guidance

Safe handling of sharps

〉 Follow safe practices to minimise the risk of sharps injury, including:

- Disposing of needles and other single-use sharp items at the point of use (i.e. into a sharps bin located in the treatment room). The clinician who has generated the sharp is responsible for its disposal.
- Using a single-handed technique or a recapping device for re-sheathing of needles.
- Removing burs and scaler tips from handpieces as soon as they are no longer needed during treatment.
- Not passing sharp instruments between staff members, for example, scalpels and scalers.
- Using a lidded puncture resistant container, cassette or covered tray to transport sharp reusable items from the point of origin to the reprocessing area safely.

Safe disposal of sharps waste

〉 Handle sharps waste carefully and dispose of it in a clearly labelled yellow, rigid walled, puncture and leak resistant sharps container that complies with AS/NZS 4261:1994. Sharps waste includes local anaesthetic cartridges, needles, scalpel blades, endodontic files, matrix bands and stainless-steel burs.

〉 Use sharps containers in accordance with manufacturer guidelines, i.e. not overfilled, and close before collection.

〉 Locate sharps containers close to the origin of the sharps waste in a way that makes them inaccessible to unauthorised persons at all times.

〉 Use an authorised hazardous waste contractor to dispose of sharps containers.

Safe disposal of waste

The standards for the safe disposal of healthcare waste are specified in NZS 4304:2002 *Management of healthcare waste*.

Healthcare waste is classified as:

- 'Hazardous' – waste that poses a threat to the health and safety of staff, public or to the environment.
- 'Controlled' – waste that is recognisable as coming from a healthcare facility, which may be contaminated or soiled with potentially infectious body fluid that is not expressible under compaction; or is not infectious but may be considered culturally or aesthetically offensive.
- 'Non-hazardous' – any waste not classified within the categories of hazardous waste or controlled waste (i.e. general and re-cycle waste).

Variation in interpretation and application of the NZ standard may occur, depending on local council requirements, facilities and organisational policies.

6 You must ensure the safe handling and disposal of hazardous and controlled waste.

Guidance

〉 Wear appropriate personal protective equipment when handling hazardous and controlled waste, for example, protective eyewear, gown, mask and gloves; and perform hand hygiene afterwards.

〉 Separate waste at its point of generation into: hazardous, controlled or non-hazardous.

〉 Remove waste from the practice environment frequently.

Safe disposal of hazardous and controlled wastes

〉 Guidance for the collection and disposal of hazardous and controlled waste is provided below, however it is recommended that practitioners develop their waste disposal procedures following reference to local council policies for disposal of healthcare waste.

Hazardous waste	Collection and disposal requirements
Sharps waste	Refer to Standard 5 guidance "Safe disposal of sharps waste"
Non-sharps waste (further categorised as infectious, cytotoxic, radioactive, hazardous, and body parts), examples in the dental environment:	
Human tissues, laboratory specimens, material or solutions containing expressible, or free-flowing, blood or body fluids	Place in biohazard bags or containers. Store in a restricted access area. Bags/containers to be collected and disposed of by an authorised hazardous waste contractor.

Amalgam waste (scrap, extracted teeth restored with amalgam, amalgam capsules)	Store under radiographic fixer solution or water, in a sealed container (Note: used amalgam capsules can be stored dry). Store in a restricted access area. Containers to be collected and disposed of by an authorised recycling contractor. Do not dispose of amalgam waste with other hazardous waste.
Chemicals (radiographic developer and fixer), and pharmaceuticals	Store in separate, sealed, labelled, plastic containers in a restricted area. Seek advice from the local council authority regarding appropriate disposal.

Controlled waste	Collection and disposal requirements
Examples: used gloves, masks, disposable gowns and aprons, used cotton rolls and gauze	Place in a leak proof bag. Seek advice from the local council authority regarding appropriate storage and disposal.

〉 Clean an extracted tooth of visible blood and saliva and place in a leak proof container before offering it to the patient/whānau. If the tooth is not wanted, dispose of it as controlled waste.

Environmental controls

A contaminated zone is any area that is, or has the potential to be, contaminated with potentially infectious material (blood, saliva, etc.) through either direct contact (gloved hands, instruments) or indirect contact (spray, splatter, aerosols).

The typical zones of contamination in the practice environment are:

- The primary clinical zone within the patient treatment area.
- The zone in the reprocessing area where instruments and equipment are handled and decontaminated.
- The zone where contaminated patient appliances and impressions are received and decontaminated.

A clean zone is any other area within the practice environment.

Environmental surfaces in a contaminated zone are termed ‘clinical contact surfaces’ and can include countertops, the dental chair, cuspidor, operating light and radiographic equipment.

Environmental surfaces in a clean zone are termed ‘housekeeping surfaces’.

7 You must minimise the degree and extent of contamination within a contaminated zone, and avoid spread of contamination to a clean zone.

Guidance

〉 Clearly define the contaminated and clean zones within your practice environment.

〉 Employ measures aimed at reducing the extent of contamination within the contaminated zone, as appropriate, for example, high volume evacuation systems, use of dental dam.

〉 Optimise ventilation and air quality including air exchange rates, air flow and air filtration systems. Maintain airflow that will reduce the risk of carrying contaminants from the dirty area to the clean area.

〉 Employ measures aimed at preventing the spread of contamination to a clean zone. These include:

- Anticipating treatment needs before commencing treatment.
- Not touching surfaces, equipment, stored instruments and materials in the clean zone, with contaminated gloves or hands.
- Ensuring all drawers remain closed when aerosols are being generated during patient treatment.

〉 Protect items used in clinical care from contamination by storing it in closed drawers, cupboards or lidded containers, including dental materials and local anaesthetic cartridges in their blister packaging (where applicable).

〉 Maintain the sterility of critical items when surgical procedures are performed by using sterile gloves, placing sterile instruments on a sterile surface, e.g. disposable sterile surgical drapes or sterile metal trays on bracket tops, and maintaining a surgical aseptic technique.

〉 Consider all surfaces and items within the contaminated zone as contaminated once patient treatment has commenced. After treatment, clean the clinical contact surfaces, and either dispose of, or reprocess the remaining items appropriately (refer to *Part III: Reprocessing of reusable items*).

8

You must ensure you achieve and maintain a safe and clean clinical environment by:

a. effective cleaning of all surfaces, equipment and instruments.

b. discarding single-use items at point of use.

c. maintaining safe waterlines.

d. following local authority advice for the use of water, in the event water becomes contaminated or unpotable.

Guidance

〉 Develop a cleaning schedule that includes daily, weekly, monthly and yearly cleaning requirements for the clinical contact and housekeeping surfaces in the practice environment. Maintain this schedule.

〉 Use sealed, non-slip and washable materials for floor coverings in all clinical treatment and reprocessing areas.

Cleaning of surfaces in the contaminated zone (clinical contact surfaces)

〉 Clean clinical contact surfaces with a suitable clinical detergent - use in accordance with manufacturer's instructions, and dry surfaces with a low-lint cloth or disposable paper towel.

〉 Clean clinical contact surfaces at the following times:

Patient treatment area.	Immediately after each patient treatment.
Area where contaminated items are received and decontaminated.	Immediately after decontamination of items, or when visibly soiled.
Area where clean items are inspected, packaged, labelled and sterilised.	After loading the steriliser, or when visibly soiled.

〉 Clean and disinfect clinical contact surfaces that are visibly soiled with an intermediate or low-level disinfectant.[5] Guidance for the management of blood and body fluid spills is provided as Appendix E.

[5] Intermediate (EPA- registered hospital disinfectant with tuberculocidal claim); Low level EPA- registered hospital disinfectant with an HBV and HIV label claim. (EPA = U.S. Environmental Protection Agency).

- Achieve effective disinfection by following the product manufacturer's instructions for use, noting the required contact time.
- When effective disinfection of clinical contact surfaces can be achieved it may be used between patients and/or at the beginning and end of a treatment session or day.
- Barrier protection (plastic 'fitted' sleeves or disposable adhesive wrap) may be used for surfaces and equipment within the contaminated zone. This includes, but is not limited to the curing light, intra-oral camera or items as specified by the manufacturer.
- Consider the waste and environmental footprint of plastic barriers and minimise use where possible.
- If used, dispose of barrier protection after each patient treatment, clean surfaces and/or equipment that have been barrier protected, and place new barrier.

Cleaning of surfaces in the clean zone (housekeeping surfaces)

- Clean housekeeping surfaces of the patient treatment areas and instrument reprocessing area at the end of each session with a suitable clinical detergent, or when visibly contaminated.
- Maintain the remaining housekeeping surfaces in the practice environment in a clean condition, giving special attention to high touch surfaces. Household cleaning procedures are sufficient for these areas.

Waterlines and water quality

- Assure yourself that the water within your oral health practice environment meets New Zealand drinking water standards; information on the quality of water way be obtained from the local water authority.
- All dental equipment with waterlines that deliver water to any device that enter the patient's mouth (such as handpieces, scalers and air/water syringes) are to be fitted with an anti-retraction valve to minimise backflow of contaminated fluids from the oral cavity.
- Flush waterlines for at least two minutes at the start of each day and for 30 seconds after each patient, and as directed by the manufacturer.
- Chemically treat waterlines according to the instructions for use. The use of an independent water supply (fitted bottle) system is encouraged as it makes chemical germicide treatment easier and allows for use of water treated by reverse osmosis (RO) or other approaches recommended by the manufacturer.
- Monitor the microbial levels in water from dental waterlines by testing regularly and documenting the results. Testing can be undertaken by the practice using commercially available tests or outsourced to laboratories. The acceptable number of bacteria in water used as a coolant/irrigant for non-surgical dental procedures is <200 CFU/ml (international safe limit for safe water in medical applications).
- Where testing shows levels above 200 CFU/ml, carry out a sanitising treatment (shock treatment) according to the instructions for use. Risk-assess to determine next steps, which may include seeking professional advice.
- Have a dental waterline microfilter system fitted that purifies and/or treats incoming water to remove or inactivate microorganisms, if required.
- For procedures with increased risk of infection, use sterile saline or sterile water as a coolant/irrigant.

Transmission-based precautions

Transmission-based precautions are a secondary set of infection prevention and control practices. They are used in addition to standard precautions for patients who may be infected or colonised with infectious pathogens, specifically to prevent transmission of infections. e.g. norovirus, chickenpox (varicella), MRSA or COVID-19.

Transmission-based precautions are contact, droplet or airborne.

9

You must follow appropriate transmission-based precautions when the patient has an infectious condition that cannot be contained by standard precautions alone and treatment cannot be deferred. If you are unable to defer treatment or follow transmission-based precautions, you must refer appropriately.

Guidance

- Update the medical history for each patient at each interaction to determine if the patient has a known or suspected infectious condition that cannot be effectively contained by standard precautions alone.
- When transmission-based precautions are indicated postpone treatment when possible until the patient is no longer infectious.
- When treatment cannot be postponed, provide appropriate transmission-based precautions in addition to standard precautions, or refer appropriately.
- Examples of transmission-based precautions are listed in Appendix F; appropriate selection is based on the route of transmission of the infectious agent.
- In case of community outbreaks or novel infectious agents follow local and/or national guidance.

Contaminated items for dispatch

10 You must manage contaminated items being sent off-site in a way that protects safety of people and avoids environmental contamination.

Guidance

〉 Clean, package and sterilise instruments for repair, for example handpieces, before dispatching for repair or maintenance.

〉 Place biological specimens in a sturdy, leak-proof container with the biohazard symbol; and then, package the leak-proof container in a sealed bag or container labelled with the biohazard symbol, to prevent any leakage during transport.

〉 When used/contaminated items (for example impressions and appliances) are sent between a dental laboratory and another dental practice, clean and disinfect items before dispatch and on receipt as follows:

Action	Appropriate procedure
Before dispatch – Practice sending item to laboratory.	Practice rinses item thoroughly with running water, then clean the item with an appropriate clinical detergent, rinse, disinfect and dry (when appropriate).
Laboratory accepting item.	Laboratory cleans and disinfects with appropriate solutions to protect integrity of material.
Before return dispatch - Laboratory sending item to practice.	Laboratory cleans the item with an appropriate clinical detergent, rinse, disinfect and dry (when appropriate).
Practice accepting item.	Practice cleans and disinfects the item with appropriate solutions to protect integrity of material.

〉 Once cleaned and disinfected, place items in a sealed plastic bag; label to indicate “decontaminated” and then place in a clean, rigid container for transport.

〉 When an impression is poured or a patient’s appliance is modified in the practice, follow the same procedure for the ‘Before dispatch - Practice sending item to laboratory’ before pouring/handling lab work.

Modification of dental appliances

11 You must ensure the appropriate handling and disposal of materials used in the repair or modification of dental appliances which have been in contact with the patient's mouth.

Guidance

- Determine if reusable items and/or equipment used in the repair or modification of a dental appliance is semi-critical or non-critical, and process accordingly (see standard 12).
- Discard, after use, any material used in the finishing, repair or modification of a dental appliance which has been in contact with a patient's mouth, for example, pumice or similar alternative products.
- Repeated use of the finishing/polishing material is acceptable where the material is only used in a newly fabricated or disinfected dental appliance.

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Part III: Reprocessing of reusable items

Reprocessing refers to the procedures that are carried out to ensure a contaminated reusable item is made safe for re-use and includes, as appropriate for the item's intended use:

- Cleaning.
- Disinfecting.
- Packaging & labelling.
- Sterilising.
- Safe storage.

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Reprocessing of reusable items

12 You must ensure you use reprocessing procedures appropriate for the intended use of contaminated reusable items.

Guidance

〉 Classify reusable items according to the risk of transmission of infectious agents associated with their intended use, consistent with the Spaulding classification system.

Note: Classification of items may change depending on the intended use of the item, for example, dental tweezers, periodontal instruments and ultrasonic scaler tips may be classified as critical or semi-critical.

〉 Principles for reprocessing reusable items as follows:

Classification	Definition and dental related examples	Reprocessing procedures
Critical items	Enter into normally sterile tissue, the vascular system or body cavity. *Examples*: dental forceps and elevators, surgical instruments, surgical burs, instruments used in implant surgery, implantable items, endodontic files.	Clean, package before sterilisation, sterilise in a steriliser with a drying cycle and store in a manner that maintains sterility until point of use. Critical items require batch control identification (refer to standard 15).
Semi-critical items	Contact intact mucous membranes or non-intact skin but do not enter the tissues. *Examples of solid semi-critical items:* mouth mirrors, dental probes, restorative instruments, burs, sterilisable impression trays. *Examples of hollow semi-critical items*: air/water syringe tips, sterilisable suction tips, all handpieces including ultrasonic scaler handpieces, scanning tips, air abrasion tip, and handpieces used for chairside fitting and adjustment of appliances.	Clean and steam sterilise, before re-use. Semi critical items are not required to be sterile at point of use and packaging prior to sterilisation is not required. Consider the waste and environmental footprint of plastic packaging. Note: Some items may not be able to be sterilised, and in these cases, cleaning followed by high level disinfection according to manufacturer's validated instructions is required.
Non-critical items	Contact intact skin but not mucous membranes. *Examples:* bib chains, protective eyewear. Reusable items used in the repair or modification of a dental appliance which has been disinfected after being in contact with a patient's mouth, for example, mops, brushes, wheels and adjustment burs.	Clean items before re-use. In addition to cleaning, items may be disinfected. Sterilisation of non-critical items is not required.

〉 Treat the following items as single-use items:

- Items designated as single-use by the manufacturer. Small and/or sharp items that are difficult to clean in a safe and verifiable manner, including matrix bands, barbed broaches, all endodontic reamers and files (with the exception of nickel-titanium files if the verified process for cleaning is routinely followed, refer Appendix G).
- Steel burs, due to oxidation as a result of sterilisation.

〉 When purchasing new equipment consider the Spaulding classification and associated reprocessing requirements.

The reprocessing area

13 You must ensure an appropriate reprocessing area, with distinct areas for reprocessing procedures which facilitates reprocessing workflow from contaminated to clean.

Guidance

〉 Establish a reprocessing area which is separate/separated from the patient treatment area where only reprocessing/sterilising tasks are performed and has:

- sufficient bench space to allow for all reprocessing activities and associated equipment.
- adequate ventilation to maintain airflow in a manner that will reduce the risk of carrying contaminants from the dirty area to the clean area.
- suitable lighting and magnification to enable instrument inspection.
- water that is fit for purpose to prevent damage to processing equipment and instruments. Information on the quality of the potable water supply to the reprocessing facility should be available from the local water authority.
- testing of water is recommended to assess conductivity and hardness and is particularly important when using washer-disinfectors. Testing should be carried out as recommended by the manufacturer, and can be undertaken by the practice using commercially available tests or outsourced to laboratories.
- smooth bench surfaces for easy and effective cleaning.
- a dedicated sink for cleaning contaminated instruments, deep enough to submerge the items for cleaning, and rinsing of items.
- a separate facility for hand washing situated away from the reprocessed items. The sink is to be fitted with non-touch tapware, or employ a non-touch technique.
- covered storage areas for reprocessing supplies; separate from the storage area for sterilised items.

- air and water to support flushing of lumened instruments.
- fittings to be flush against the surface where possible e.g. light fittings, benchtops to wall.

〉 Use a lidded puncture resistant container, cassette or covered tray to transport items from the point of origin to the reprocessing area.

〉 Establish distinct areas in the reprocessing area that facilitates one way workflow for the following reprocessing procedures:

- Receiving and cleaning of contaminated items.
- Drying and inspecting of items.
- Packaging & labelling (if required).
- Sterilisation.
- Cooling of sterilised items awaiting storage or dispatch.

〉 Where it is not possible to establish a reprocessing area which is separate from the clinical treatment area/s, establish a reprocessing area as far away from the contaminated zone as possible and separate it from the treatment area by partitioning.

Cleaning of contaminated reusable items

The purpose of cleaning is to remove soil from a reusable instrument before sterilisation.

Refer to the instrument manufacturer's instructions before cleaning the instrument for the first time.

Cleaning with a washer-disinfector is an effective automated process, easier to replicate than a manual process, can generate a disinfected item, reduces sharps risk, and offers validation of the cleaning process.

The use of an ultrasonic (if permitted) is preferable and safer than manual alone.

Use manual cleaning only when the manufacturer's validated instructions require it, or when use of an ultrasonic is not appropriate.

14 You must ensure all contaminated reusable items are cleaned and dried appropriately.

Guidance

〉 Remove debris on instruments at point of use by wiping or use an enzymatic instrument pre-cleaning foam.

〉 Perform hand hygiene and use appropriate PPE e.g. instrument grade utility gloves, a mask, fluid resistant protective clothing and eye protection during cleaning of contaminated items.

Automated cleaning

Instrument washer-disinfectors

〉 Follow the manufacturer's instructions for the operation of the instrument washer-disinfector to ensure the effective removal of contaminants.

〉 Monitor the instrument washer-disinfector process as follows:

- Undertake continuous checks for correct functioning of the equipment (water pressure, temperature, flow) in accordance with the manufacturer's specifications.
- Undertake visual checks for cleanliness of items.
- Cleaning efficacy 'soil test' is recommended according to manufacturer's instructions.

〉 A checklist for the monitoring process for cleaning with an instrument washer-disinfector is included in Appendix B.

Ultrasonic cleaning

〉 Follow the manufacturer's instructions for the operation of the ultrasonic cleaner to ensure the effective removal of contaminants.

〉 Remove gross contaminants from items before placing in the basket of the ultrasonic cleaner.

- Ensure the ultrasonic cleaner unit is loaded according to the manufacturer's instructions and always operate with the lid in place. Overloading the unit decreases the efficiency of the cleaning process.
- Change the cleaning solution at least daily, or more frequently if visibly contaminated. De-gas unit every time the solution is changed.
- Leave the ultrasonic cleaner empty, clean and dry at the end of the day.
- A checklist for the monitoring of ultrasonic cleaning is included in Appendix B.

Manual cleaning

- Where manual cleaning is required, and ultrasonic cleaning is not appropriate:
  - Immerse contaminated items in a dedicated sink intended for cleaning reusable items.
  - Use an instrument grade cleaning detergent.
  - Use non-abrasive cleaning methods, including an appropriately sized instrument brush, cleaned after each use in warm water and stored dry. Instrument brushes with metal bristles are not recommended.
  - Keep items fully submerged in the cleaning solution while cleaning to minimise aerosol risk when manufacturer's instructions permit.
  - If the water becomes heavily soiled, replace the cleaning solution and repeat the cleaning procedure.
  - Carry out a final rinse in warm running water.

Drying of items after cleaning

- Use a clinical grade microfibre cloth or a drying cabinet for drying items. Do not leave items to air dry.

Packaging

15

You must ensure all reusable critical items are packaged and labelled with batch control identification information. By 1 January 2026, the batch control identification information of the critical item must be recorded on the patient's record.

Guidance

- Semi-critical items are not required to be sterile at point of use and packaging prior to sterilisation is not required. Consider the waste and environmental impact of unnecessary packaging.
- Use packaging materials specified for use in sterilisation of critical items.

〉 Before sterilising, seal the wrapped packs with sterilisation tape. Do not use domestic adhesive tape, staples, rubber bands or pins as these can compromise pack integrity.

〉 Package sharp items in a manner to prevent perforation of the pack. Tip protectors designed for the purpose may be used for sharp items.

〉 Open and unlock items with hinges or ratchets, and disassemble multi-part instruments, to ensure steam reaches all parts.

〉 Label the outside of the pack of all critical items, with the following batch control identification information:

- Steriliser identification number or code.
- Date of sterilisation.
- Cycle or load number.

〉 Batch control identification links a sterilising cycle and its verifiable performance data to the critical item/s used on a patient, thereby establishing a 'patient to process' link.

Steam sterilisation

16 You must ensure all reusable critical items are sterilised using a steam steriliser with an appropriate cycle type for the load processed.

17 You must ensure all reusable semi-critical items are sterilised using a steam steriliser with an appropriate cycle type, unless the manufacturer's instructions do not allow for steam sterilisation. In these cases, the items must be cleaned, followed by disinfection with adherence to manufacturer's validated instructions.

18 You must ensure all packaged items are processed in a steam steriliser with drying capability.

19 You must ensure the integrity of the sterilisation process. Monitor each cycle and use a steriliser equipped with a data recording device and/or printer.

Guidance

Sterilisation cycle types

〉 Use a steam steriliser capable of performing a cycle type/s that is appropriate for reprocessing reusable critical and semi-critical items, as described below:

- N type cycles – capable of sterilising unwrapped, solid items only[6].
- B type cycles - capable of sterilising wrapped and unwrapped items, including porous and hollow items that do not exceed the specifications of Hollow load Type A*.
- S type cycles – capable of sterilising unwrapped solid items and at least one other of the following load types, as specified by the manufacturer:
    - Porous items.
    - Small porous items.
    - Hollow load Type A*.
    - Hollow load Type B*.
    - Single layer wrapped items.
    - Double wrapped items.

* Refer to Appendix H for criteria of hollow types.

Use of the steriliser

〉 Load and operate the steriliser according to the manufacturer's instructions to ensure steam can circulate freely and reach all item surfaces.

〉 Do not overload the steriliser.

〉 Include at minimum a Type 1 chemical indicator[7] in every load.

〉 Sterilise items immediately after loading the steriliser.

〉 Do not leave sterilised items in the steriliser chamber overnight.

Monitoring of sterilising cycles

〉 Check the correct cycle type has been selected.

〉 Check that the process has been completed satisfactorily and that all physical parameters have been met, chemical indicators have undergone the required change, and that packaging is intact and dry (free of visible moisture) and seals are intact.

〉 Consider the load non-sterile if these criteria are not met for any item. Allow to cool, re-package and reprocess the complete load.

〉 If the second cycle is unsatisfactory, do not use the steriliser again until it has been repaired and approved for use by a qualified technician.

[6] Dental handpieces are not solid items.

[7] A Type 1 chemical indicator is a 'process indicator'. It indicates whether an item has been exposed to the sterilisation process and identifies 'processed' vs 'unprocessed' items. See appendix I for types of chemical indicators and usage requirements.

- Where there is no physical printout, the captured data needs to be reviewed at regular intervals (at least weekly) to verify parameters. Data recording devices may include process recorders, data loggers or electronic storage devices.
- Document your observations using a sterilisation cycle monitoring record and maintain for the life of the equipment, or at minimum 10 years (Appendix B).

Unloading and checking the completed load for release

- Allow the steriliser to complete its entire cycle, including drying, before removing the load.
- If the load is wet on removal, the load has failed. Items in the load must not be dried after removing from the steriliser.
- Use cooling racks for cooling sterilised items, to avoid condensation. Do not force-cool items.

Disinfection – high level

- Disinfection only may be used for a semi-critical items where the manufacturer has specified the reusable device cannot withstand steam sterilisation.
- Select an instrument grade high-level disinfectant and follow the manufacturer's instructions to achieve disinfection of items.

Storage

20 You must ensure stored critical items remain sterile until point of use, and semi-critical and non-critical items are protected from contamination before re-use.

Guidance

- Store items in a clean, dry, dust-free environment outside the contaminated zone, for example, drawers or cupboards. Handle minimally before use.
- Before using a packaged item, check the integrity of the pack, chemical indicators and labelling. If there is evidence of damage, chemical indicators not changed correctly, labelling missing or the package is open or wet (visible moisture present), re-package and re-sterilise the item before re-use.

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Part IV: Monitoring and maintenance

Monitoring is undertaken to establish if reprocessing equipment and processes are achieving required outcomes.

Monitoring includes function testing and proof of process, maintenance and validation.

Maintenance requirements are preventive measures undertaken to ensure the reprocessing equipment continues to function appropriately.

Validation is an objective measure to prove the capability of the reprocessing equipment and processes to yield a product that meets specific requirements.

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Te Kaunihera Tiaki Niho

21

You must ensure appropriate function tests are conducted for reprocessing equipment at the correct times.

Guidance

〉 Carry out the function tests below, as applicable, and record the results:

For steam sterilisers: <u>Before the first cycle of each day</u>:	
Type B cycle	In the following order: **Leak rate test** - tests the security of seals and the integrity of the chamber and drain of the steriliser. This may be performed weekly if the steriliser incorporates automatic air leak detection, and daily if not. **Air removal (vacuum) and steam penetration tests** – use a Type 2 chemical indicator, for example, Bowie-Dick type test (porous loads) or Helix test (hollow loads) that is appropriate for the steriliser.
Type S cycle	When the steriliser has cycles capable of processing hollow loads, perform **air removal and steam penetration tests** using a chemical indicator as specified by the manufacturer. All other tests are as specified by the manufacturer.

For ultrasonic cleaners:

After de-gassing, a daily function test is required to prove transducers are functioning. Test products include commercial products or an aluminium foil test.

For instrument washer-disinfectors:

As specified by the manufacturer.

Maintenance of reprocessing equipment

22

You must ensure reprocessing equipment is appropriately cleaned, daily maintenance checks are performed, and planned preventative maintenance is carried out at least annually.

Guidance

〉 Consult with manufacturer's instructions to ensure the procedures and maintenance checks meet their requirements. These steps may include:

Reprocessing equipment	Maintenance of equipment
Steam steriliser	Clean chamber when cold. Drain water reservoir as specified by manufacturer. Check steriliser: • Chamber and door seal is free of debris. • Chamber drain is clear. • Recording devices are functioning correctly. • Door gasket is undamaged. • Water level is sufficient for processing.
Ultrasonic cleaner	Clean internal and external daily, including the loading basket. Leave empty and dry at end of day. Check functioning of switches, gauges, and lights, filters and base plates.
Instrument washer-disinfector	Clean and check jets, filters, doors, gaskets/seals and external surfaces daily. Check labels of cleaning agents daily to confirm correct agent in use and sufficient volume for processing.

〉 Keep records of these checks completed – refer Appendix B.

Planned preventative maintenance

- Establish a programme of planned preventative maintenance for each piece of reprocessing equipment based on the manufacturer's instructions and the equipment's performance record. This may require planned preventative maintenance to be carried out more frequently than the minimum annual requirement.
- Calibration of measuring instruments in accordance with manufacturer's instructions, or at least annually as part of the annual maintenance by a technician. Calibration should occur before performance re-qualification is performed.
- As part of the annual recalibration process, perform a chemical dosing volumetric test, and at frequency specified by the manufacturer.
- Consider modern equipment requirements for firmware updates and potential need for operational re-qualification.

Validation

The three stages of validation are summarised below:

<table>
<tr><th colspan="2">Stages of validation</th><th>Function</th></tr>
<tr><td>Installation Qualification (IQ)</td><td rowspan="2">IQ and OQ are collectively termed Commissioning at a first installation; and Re-commissioning when subsequently required.</td><td>Demonstrates that equipment associated with a particular reprocessing activity has been supplied and installed in accordance with its specifications.

IQ also applies to the services and environment required for the equipment (for example, water, steam).</td></tr>
<tr><td>Operational Qualification (OQ)</td><td>Demonstrates the capability of the reprocessing equipment to deliver the process that has been defined by the equipment manufacturer.

For sterilisers, the tests conducted during OQ usually consist of manufacturer recommended performance tests and heat penetration tests (to find the “cold spots” in the chamber) with the steriliser in an unloaded state.

Washer-disinfector tests performed may include a ‘Heat Distribution Pattern’ test. Other tests may include an ‘Empty Chamber Profile’ test (manufacturer dependant).</td></tr>
<tr><td colspan="2">Performance Qualification (PQ)</td><td>Demonstrates that the equipment consistently operates in accordance with predetermined criteria and the processes consistently yield a product that meets the specified requirements for the item.

The PQ stage of validation for washer-disinfectors aims to prove the efficacy of the cleaning process for loads typically processed in the practice by running a reference load which reflects a “normal maximum” load, collecting and inspecting the completed load to demonstrate:

• Specified critical physical parameters have been met within the load.
• All load items are visibly clean.
• The load is dry (free of any visible moisture).

Annual performance re-qualification is performed at 12 monthly intervals to prove the reliability of a reprocessing process on an ongoing basis.</td></tr>
</table>

23

You must ensure all validation stages (IQ, OQ and PQ), and annual performance re-qualification, are properly performed on-site for each steriliser and instrument washer-disinfector at the correct times, and by the appropriately trained personnel.

Guidance

〉 Perform validation (IQ, OQ and PQ) when:

- New equipment is installed in the practice.
- Monitoring and function testing records indicate unacceptable deviation(s) from data determined during the last performance qualification.
- A loan machine is planned to be on-site for longer than 4 weeks and it has been calibrated within the last three months.
- Equipment is returned following a major repair or modification, e.g. main circuit board, temperature and pressure sensors.

〉 All stages of validation (IQ, OQ and PQ) are performed by a qualified contractor with the appropriate training and equipment to meet ISO 17665 standard for sterilisers, and ISO 15883 standard for instrument washer-disinfectors. PQ to be performed in conjunction with a practice staff member/s to ensure the authenticity and reproducibility of the sterilising and/or washing-disinfecting processes within the practice.

〉 Annual performance re-qualification to be performed by a qualified technician on-site, however it can be performed by an appropriately trained practice staff member/s when this cannot be achieved.

〉 Recalibrate the measuring instruments to ensure accuracy of measurements as part of the annual maintenance by a technician, before PQ or performance re-qualification is performed.

〉 Perform only PQ when new or modified items for sterilising, packaging or loading configurations are introduced - unless equivalence to a previously qualified load/item, packaging, or loading pattern has been demonstrated.

〉 Follow the processes below for performance qualification (PQ) and performance re-qualification of the sterilising process:

PQ or performance re-qualification completed by a qualified technician[8]	**Performance re-qualification** performed by trained practice staff when PQ cannot be completed by a qualified technician on-site, and maintenance and calibration has been recently performed by a qualified technician
• Select the cycle types to be tested. • The practice determines load that is representative of those routinely sterilised in the practice and relevant to the cycle type. Include items that are difficult to sterilise in terms of density and size. • Prepare/ package the load in an identical manner to that practised routinely. • Place sensors or self-contained data loggers to measure temperature and pressure in specified locations in the load. • Place biological indicators inside packs containing sensors, or adjacent to self-contained data-loggers. • Run the cycle and collect data. • On completion of the cycle, check the load is dry and external chemical indicators have correctly change. Check stages and parameters of the cycle are correct. • After cooling, remove packaging and biological indicators to be cultured. Check internal chemical indicators (if used) for correct change. • Repackage the load in an identical manner to the first test cycle, and repeat the process twice more without interruption. • Document the full process including copies of content, placement of biological indicators and sensors, cycles and test results.	• Select the cycle types to be tested. • The practice determines the load that is representative of those routinely sterilised in the practice and relevant to the cycle type. Include items that are difficult to sterilise in terms of density and size. • Prepare/ package the load in an identical manner to that practised routinely. • Place biological indicators inside packs. • Run the cycle and collect data. • On completion of the cycle, check the load is dry and external chemical indicators have correct change. Check stages and parameters of the cycle are correct. • After cooling, remove packaging and biological indicators to be cultured. Check internal chemical indicators (if used) for correct change. • Repackage the load in an identical manner to the first test cycle, and repeat the process twice more without interruption. • Document the full process including copies of contents, placement of biological indicators, cycles and test results.

[8] To meet ISO 17665: Sterilisation of healthcare products.

〉 Follow the processes below for performance qualification (PQ) and annual performance re-qualification of the cleaning and disinfecting processes using an instrument washer-disinfector:

PQ or performance re-qualification completed by a qualified technician[9]	**Performance re-qualification** performed by trained practice staff when PQ cannot be completed by a qualified technician on-site and maintenance and calibration has been recently performed by a qualified technician

• Select the cycle types to be tested for each carriage type used.
• The practice will determine a load that is representative of the loads routinely cleaned and disinfected in the practice.
• The practice will prepare the maximum load routinely used in an identical manner.
• Run three consecutive cycles, while simultaneously performing:
  ○ Thermometric testing to confirm that disinfection parameters are acceptable (performed by a qualified contractor)
  ○ A cleaning efficacy (or soil) test to confirm the ability of the equipment to yield a clean product.
• Document the full process including copies of content, placement of soil test, thermometric sensors, cycles and test results.
	• Select the cycle types to be tested for each carriage type used.
	• The practice will determine a load that is representative of the loads routinely cleaned and disinfected in the practice.
	• The practice will prepare the maximum load routinely used in an identical manner.
	• Run three consecutive cycles, while simultaneously performing:
	  ○ A cleaning efficacy (or soil) test to confirm the ability of the equipment to yield a clean product.
	• Document the full process including copies of contents, placement of soil tests, cycles and test results.

〉 Monitoring, maintenance and validation requirements are summarised in Appendix B.

[9] To meet ISO 15883 standard for washer-disinfectors.

Dental Council
Te Kaunihera Tiaki Niho

Part V: Blood or body fluid exposure procedures

A blood or body fluid exposure is defined as any instance when a contaminated object or substance breaches the integrity of skin or mucous membranes, or comes into contact with the eyes.

This could include:

- Penetrating injuries to the skin (for example, an exposure prone procedure accident or a contaminated sharps injury, commonly caused by needles, sharp instruments and scalpel blades).
- An injury where the integrity of the skin is compromised (for example, cut, open wound or abrasion), and the skin comes into direct contact with blood, or body fluids contaminated with blood.
- Bites or scratches caused by patients.
- Direct contact between the mucous membranes of the mouth, nose or eyes with blood or body fluids.

Blood or body fluid exposure procedures

Oral health practitioners and staff are at most risk of penetrating injuries to the skin (sharps injury). This type of blood or body fluid exposure carries the greatest potential risk of transmission of blood-borne viruses, of which hepatitis B, hepatitis C and human immunodeficiency virus (HIV) are the main concern; collectively termed Blood Borne Virus (BBV).

A sharps injury can occur to a practitioner in the following general circumstances:

- When performing an exposure prone procedure (EPP)[10]; resulting in exposure of the patient to the blood of the practitioner.
- When handling sharps outside the patient's mouth. Contaminated sharps are of most concern due to the potential risk of BBV infection (staff are also at risk).

24 You must, in the event of an exposure to blood or body fluid, immediately stop working and apply first aid care; and follow appropriate procedures to minimise the risk of transmission of an infectious agent to yourself and/or the patient.

〉 Apply **first aid care** to a practitioner or staff member following a blood or body fluid exposure, as follows:

- If it is a penetrating injury: allow the wound to bleed, and clean it thoroughly with soap and lukewarm water. There is no benefit in squeezing the wound.
- If the exposure involves mucous membranes or conjunctiva: flush with normal saline or water (remove contact lenses after flushing the eye and clean normally).

〉 In the event of an **injury to yourself** which results in the **patient being exposed to your blood** (typically while performing an EPP). The procedure you must follow is detailed in Appendix J.

〉 In the event **you are exposed to a patient's blood or body fluids,** but the patient is not exposed to your blood or body fluids for example, from a contaminated sharps injury when moving or cleaning equipment you must follow the procedure below:

- Undergo testing the same day, if possible, to determine your serological status for HBV, HCV and HIV at the time of injury; and
- Request the source patient undergo testing the same day, if possible, to determine his/her serological status for HBV, HCV and HIV at the time of injury; and
- If the patient refuses testing, respect the patient's refusal and document it; and
- Promptly seek medical advice regarding the likelihood of transmission of an infectious agent (based on the nature of the exposure and the known medical status of the patient); and the appropriateness of post-exposure prophylaxis. Initial medical consultation may result in referral to a specialist medical practitioner/s for advice; and

[10] EPP is the simultaneous presence of a health-care provider's hands and a needle or to other sharp instrument or object (e.g. bone spicule or tooth), in a poorly visualised or highly confined anatomic site, including the mouth.

- Document the incident and record the:
    - Name of the practitioner exposed or injured.
    - Date and time of injury or exposure.
    - Nature of injury or exposure, and how it occurred.
    - Name and details of the source patient.
    - Actions taken including, who was informed and when.
    - Patient's refusal or consent to undergo testing.
- Complete relevant Accident Compensation Corporation forms.
- Undergo follow up testing at one month, three months and six months following exposure, if required.

Information only:

If the source patient is infected with HBV and you are not immune to HBV, it would likely be recommended that you receive a single dose of hepatitis B immunoglobulin within 48-72 hours and start a course of HBV immunisation.

If the source patient is infected with HIV, and the specialist medical practitioner advises post-exposure prophylaxis, you can expect this to be administered within 24-36 hours after exposure (and preferably within 2 hours).

There is no effective post-exposure prophylaxis for HCV. However early pre-emptive therapy may be offered if you receive a positive test result for HCV RNA following testing at 1-month post-exposure.

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Appendices

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Te Kaunihera Tiaki Niho

Appendix A: Infection prevention and control policies, procedures and records

Quality Management System	Health & safety • Staff immunisation advice and reviews	Health & safety • Incident records for occupational health & safety	Staff education orientation and refresher training records	Procurement records for reusable medical devices and reprocessing equipment	Equipment maintenance records • Sterilisers • Ultrasonic cleaners • Washer-disinfectors	Batch control identification tracking records	Environmental sustainability	Cleaning of reprocessing equipment and facility
Standard Precautions	Hand hygiene • 5 moments • ABHR • Hand wash	Personal protective equipment • Gloves • Masks • Eye protection • Protective clothing • Footwear	Safe management of sharps • Handling • Disposal of sharps waste	Safe disposal of waste	Environmental controls • Contaminated zone • Clean zones • Aseptic technique	Water and waterlines • Waterlines testing and management • Sterile procedures • Reprocessing water requirements	Transmission based precautions • Classification • Patient Identification • Response	Contaminated items dispatch and receipt • Equipment • Biological specimens • Labwork
Reprocessing of reusable items	Classification of reusable and single use items • Critical • Semi-critical • Non-critical • Single use	Cleaning process records • Specific documentation for specialised reusable medical devices	Reprocessing area • Location • Ventilation • Light • Sinks • Hand washing area • Layout supporting process flow	Preparation & packaging	High level disinfection process records	Sterilisation process records	Store inventory • Storage for critical items • Storage for semi critical items	

Monitoring and maintenance Appendix B provides guidance on monitoring requirements for reprocessing equipment	Monitoring records for sterilisation cycle Develop using Dental Council Practice Standard and manufacturer's requirements: • Checks needed • Frequency • What to do if parameters not met	Monitoring record for washer-disinfector cycle Develop using Dental Council Practice Standard and manufacturer's requirements: • Checks needed • Frequency • What to do if parameters not met	Function tests Develop using Dental Council Practice Standard and manufacturer's requirements: • Type of tests • Frequency • Further testing when visual inspection raises concerns	Daily maintenance Develop using Dental Council Practice Standard and manufacturer's requirements	Planned preventive maintenance • Water testing • Reprocessing equipment	Validation for washer-disinfector • Installation qualification • Operational qualification • Performance qualification • Annual performance re-qualification	Validation for steriliser • Installation qualification • Operational qualification • Performance qualification • Annual performance re-qualification	
Blood or body fluid exposure	First aid care in event of exposure to blood or body fluid	Process when patient and healthcare worker exposed to each other's blood	Process when healthcare worker is exposed to patient's blood	Management of blood and body fluid spills				

Appendix B: Reprocessing practice-specific procedures – checklist

This checklist if for guidance purposes. Consult with the manufacturer's instructions to ensure you meet their requirements.

A. Equipment

Sterliser

Monitoring records for each cycle

- Date/time
- Steriliser ID
- Cycle number and type
- Time/temp achieved
- Parameter readouts
- Chemical indicator results
- Dryness review
- Integrity of packaging review
- Failed cycle information
- Name & signature of person releasing the load

Function tests

At beginning of day, before processing:

Type B cycle[11]

- Daily or weekly (if steriliser has automatic air leak detection): leak rate test to check security of seals and integrity of chamber and drain of the steriliser
- Daily - Air removal (vacuum) and steam penetration tests with type 2 indicator (challenge device) eg Bowie Dick for porous loads or helix test for solid & hollow loads

Type S cycle[12]

- When the steriliser has cycles capable of processing hollow loads then perform air removal and steam penetration tests using a chemical indicator as specified by the manufacturer

Daily cleaning procedures and maintenance of equipment

- Clean chamber when cold
- Drain water reservoir as specified by manufacturer

Check steriliser:

- Chamber and door seal are free of debris
- Chamber drain is clear
- Recording devices are functioning correctly
- Door gasket is undamaged
- Water level is sufficient for processing

Validation

Commissioning (IQ, OQ and PQ) by qualified contractor when:

  - New equipment installed
  - Monitoring indicates unacceptable deviation
  - Loan machine for longer than 4 months (and calibrated within last three months)
  - Equipment returned after major repair

- IQ - installation check
- OQ - operational check - performance tests according to manufacturer recommendations and usually include heat penetration & distribution tests and consistent operation
- PQ - checks consistent outcomes for facility loads – dry, indicators changed, microbial death and physical parameters achieved
- PQ performed with practice staff member to ensure authenticity and reproducibility of practice processes & loads

Annual PRQ or PQ:

PRQ - Performance re-qualification annually. Details in Standard 23 guidance

- To be performed by qualified technician on-site, OR if this cannot be achieved – can be performed by appropriately trained dental practice staff, if maintenance and recalibration has recently been performed by qualified contractor

New or modified items for sterilisation, packaging, loading configurations:

- Perform only PQ

Not needed if performance equivalence to similar previous change was demonstrated

- All parts of validation need to be recorded each

Documentation and planned preventive maintenance

- Retain and document equipment procurement details and instructions
- Document details and dates of the equipment commissioning and annual validation
- Develop and document an annual plan for planned maintenance that reflects the manufacturer's instructions
- Document the dates and details of preventive maintenance and adhoc repairs
- Major firmware updates – consider potential need for operational re-qualification
- Annual maintenance to include calibration and chemical dosing volumetric test

[11] Used for *wrapped & unwrapped, porous, hollow that does not exceed hollow type A.*

[12] Used for unwrapped solid and at least one of - porous, small porous, hollow type A & B, single & double layer wrap.

Washer-disinfector

Monitoring records for each cycle

- Date/time
- Washer-disinfector - ID
- Cycle number and type
- Temperature achieved
- Disinfection achieved
- Parameter readouts
- Name & signature of person monitoring the load

Function tests

- Every cycle check cleaning with visual inspection of processed instruments
- Further testing as specified by manufacturer and when visual inspection raises concerns

Note: Failure of cleanliness is often due to incorrect loading or cycle selection or insufficient cleaning agent

- Soil test and/or chemical dosing volumetric test may assist with diagnosis of any issues

Daily cleaning procedures and maintenance of equipment

- Clean and check jets, filters, doors, gaskets/seals and external surfaces daily
- Check labels of cleaning agents daily to confirm correct agent in use and sufficient volume for processing

Validation

Commissioning (IQ, OQ and PQ) by qualified contractor when:

  - New equipment installed
  - Monitoring indicates unacceptable deviation
  - Loan machine for longer than 4 months (and calibrated within last three months)
  - Equipment returned after major repair or modification

- IQ - installation check
- OQ - operational check - performance tests according to manufacturer recommendations
- PQ - representative loading on three consecutive cycles with thermometric testing including soil tests

Annual performance re-qualification:

- Confirms efficacy of the process using soil testing
- All parts of validation need to be recorded each time it is completed

Documentation and planned preventive maintenance

- Document details and dates of the equipment commissioning and annual validation
- Develop and document an annual plan for servicing and maintenance that reflects manufacturer's instructions
- Document the dates and details of preventive servicing, repairs and maintenance work
- Major firmware updates – consider potential need for operational re-qualification
- Annual maintenance to include calibration

Ultrasonic cleaner

Monitoring records for each cycle

- Failed cycle information

Function tests

- Perform after degassing

Daily cleaning procedures and maintenance of equipment

- Clean internal and external daily. Leave empty and dry at end of day
- Check functioning of switches, gauges, and lights, filters and base plates

Validation

- Tests as recommended by manufacturer

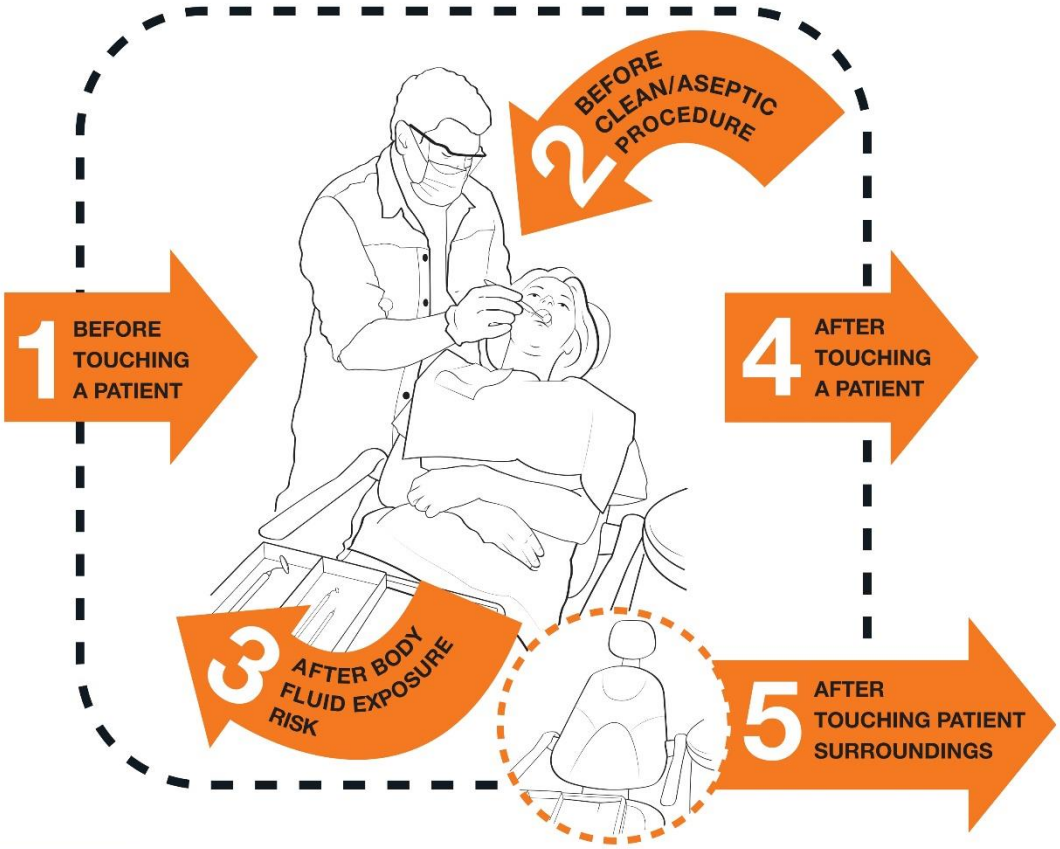
Documentation and planned preventive maintenance

- Document results of daily function test
- Document details of the equipment commissioning
- Develop and document an annual plan for servicing and maintenance that reflects manufacturer's instructions
- Document the dates and details of preventive servicing, repairs and maintenance work

Appendix C: World Health Organization 5 Moments of hand hygiene in dental care rub

Your 5 Moments for Hand Hygiene

Dental Care



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean your hands immediately after a procedure involving exposure risk to body fluids (and after glove removal).
		WHY?	To protect yourself and the environment from harmful patient germs.
4	AFTER TOUCHING A PATIENT	WHEN?	Clean your hands after touching the patient at the end of the encounter or when the encounter is interrupted.
		WHY?	To protect yourself and the environment from harmful patient germs.
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN?	Clean your hands after touching any object or furniture in the patient surroundings when a specific *zone* is temporarily and exclusively dedicated to a patient - even if the patient has not been touched.
		WHY?	To protect yourself and the environment from harmful patient germs.

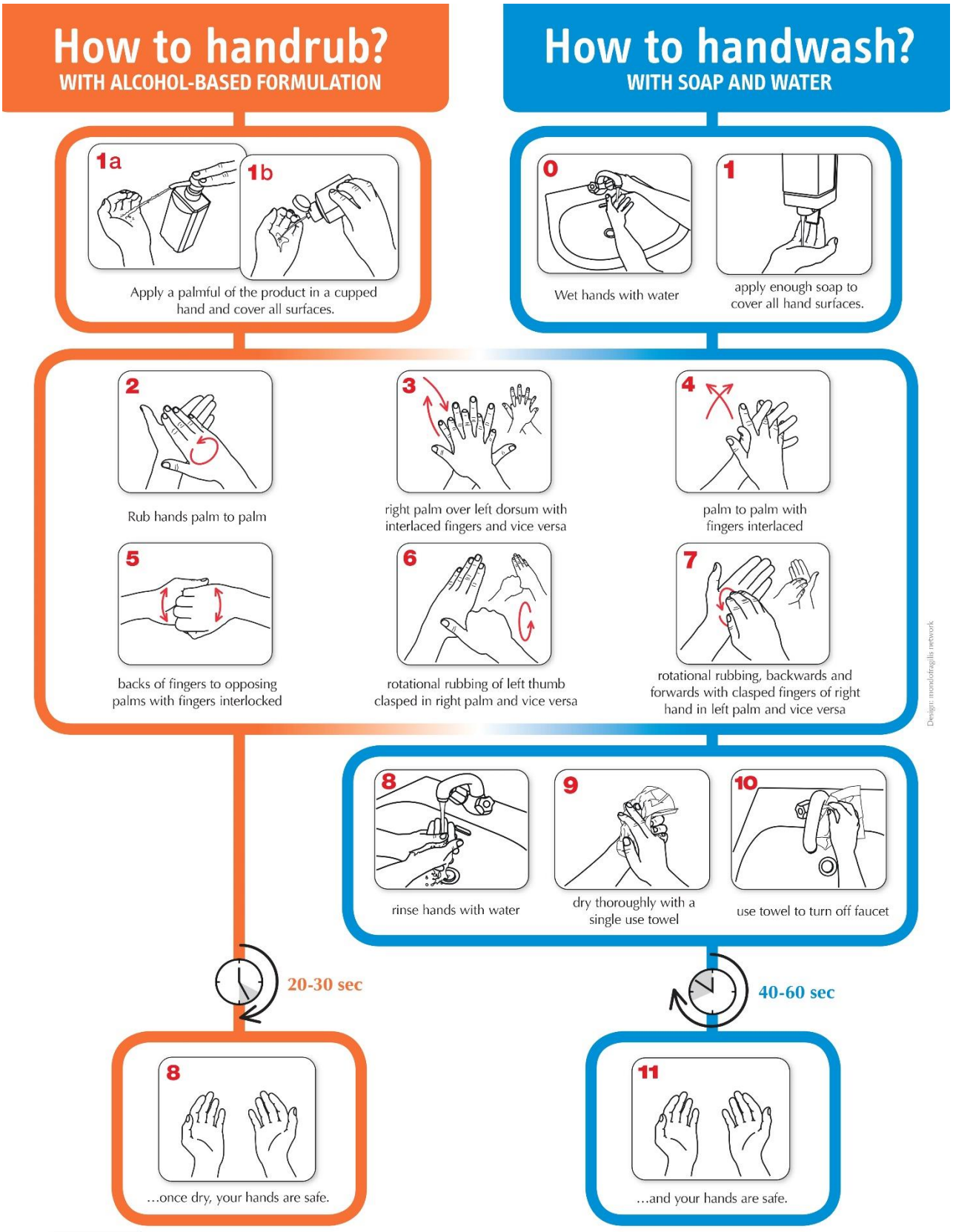
World Health Organization

SAVE LIVES
Clean **Your** Hands

WHO acknowledges the Ministry of Health of Spain and the Hôpitaux Universitaires de Genève (Infection Control programme) for their active participation in developing this material.

March 2012

Appendix D: World Health Organization Guidelines for hand washing and alcohol-based hand rub



WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

World Health Organization

October 2006, version 1.

Appendix E: Management of blood and body fluid spills

All blood and body fluid spills are potentially infectious, guidelines for their safe management are below[13].

〉 Deal with the blood or body fluid spill promptly, wearing personal protective equipment appropriate to the task, e.g. gloves, disposable aprons, protective eyewear and masks.

〉 The approach to managing the spill will depend on its size and nature, and the surface involved:

Small spills (up 10cm diameter)	Large spills (greater than 10cm diameter)
Isolate the area containing the spill	Isolate the area containing the spill
Wipe up spill immediately with disposable absorbent material, e.g. disposable paper towel	Contain the spill by covering the area of the spill with an absorbent clumping agent and allowing to absorb
Place contaminated absorbent material into impervious plastic bag or container, and dispose of immediately and appropriately	Use disposable scraper and pan to scoop up absorbent material and any unabsorbed blood or body fluid substances
Clean the area with warm clinical detergent solution, using a disposable cloth or sponge	Place all contaminated items into impervious container or plastic bag, and dispose of immediately and appropriately
Disinfect the area with an intermediate disinfectant[14] appropriate for the surface and allow to dry	Mop the area with warm clinical detergent solution
Perform hand hygiene procedures	Disinfect the area with an intermediate disinfectant[20] appropriate for the surface; and allow to dry
	Perform hand hygiene procedures
Note: For spills of large spills on carpeted areas or upholstery, it may be necessary to use a commercial cleaning company	

〉 Fully-equipped spill kits containing protective equipment, waste bags, detergents and absorbable material are commercially available.

[13] Adapted from the Australian guidelines for the prevention and control of infection in healthcare (2010).
[14] Intermediate (EPA- registered hospital disinfectant with tuberculocidal claim).

Appendix F: Transmission based precautions

Contact precautions	Droplet precautions	Airborne precautions
For patients with: • Antibiotic-resistant organisms (e.g. MRSA infection) • Acute vomiting and/or diarrhoea • Uncontained drainage • Conjunctivitis	For patients with: • Pertussis • Mumps • Rubella • Meningitis, aetiology unknown and meningococcal	For patients with: • Pulmonary tuberculosis • Measles • Chickenpox
• Acute respiratory Infection (e.g. croup, RSV, common cold, influenza, bronchiolitis, pneumonia, acute exacerbation of asthma)		
Patient identification and management		
• Identify at reception/during history taking • Separate symptomatic patients from other patients in waiting room	• Identify at reception/during history taking • Surgical mask for patient • Escort patient into single room • Respiratory etiquette • Post alert at entrance room	• Identify at reception/during history taking • Surgical mask for patient • Escort patient into single room with door and close – open window in room, if applicable • Place alert at entrance to room
Response		
Standards precautions: • Hand hygiene • Gloves for any contact • Gown, if soiling is likely *Transmission-based precautions:* • Clean and disinfect the equipment and surfaces that the patient contacted with an intermediate level disinfectant[15] after patient leaves	*Standards precautions:* • Hand Hygiene • Surgical face mask and eye protection for any contact *Transmission-based precautions:* • Clean and disinfect equipment and surfaces that the patient contacted with an intermediate level disinfectant after patient leaves.	*Standards precautions:* • Hand hygiene *Transmission-based precautions:* • N95 respirator if patient has suspected or confirmed pulmonary tuberculosis • Respirator not required for chickenpox/measles if healthcare worker is immune. Only immune staff to provide care. • Clean and disinfect equipment and surfaces that the patient contacted with an intermediate level disinfectant after patient leaves[16]

[15] Intermediate (EPA- registered hospital disinfectant with tuberculocidal claim).
[16] Adapted from Public Health Ontario Infection Prevention and Control for Clinical Office Practice.

Appendix G: Cleaning procedure for rotary nickel-titanium files

Rotary Nickel-titanium files may be sterilised and re-used if a validated process is used to clean them before sterilising[17].

The process below is a validated cleaning process for nickel-titanium files:

- Immediately after use, remove the stoppers and insert the files into a scouring sponge soaked with 0.2% chlorhexidine gluconate aqueous solution.
- Use 10 vigorous in-and-out strokes in the sponge to clean the file.
- Soak the files in a suitable enzymatic cleaning solution for 30 minutes.
- Ultrasonically clean the files for 15 minutes in the enzymatic cleaning solution.
- Drain and rinse in running water for 20 seconds.
- Steam sterilise the files.

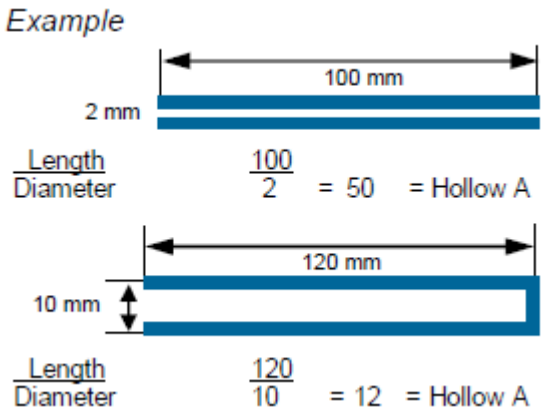
[17] Adapted from: Parashos P, Linsuwanont P, Messer HH. 'A cleaning protocol for rotary nickel-titanium endodontic instruments' *Aust Dent J* 2004; 49 (1):20-27.

Appendix H: Hollow A and Hollow B definitions

Hollow A

i. Single ended open space where the ratio of length to diameter of the cavity is greater than or equal to 1 and less than or equal to 750 (1≤ L/D ≤ 750) and where the length of the cavity is not greater then 1500mm (L ≤ 1500mm); and

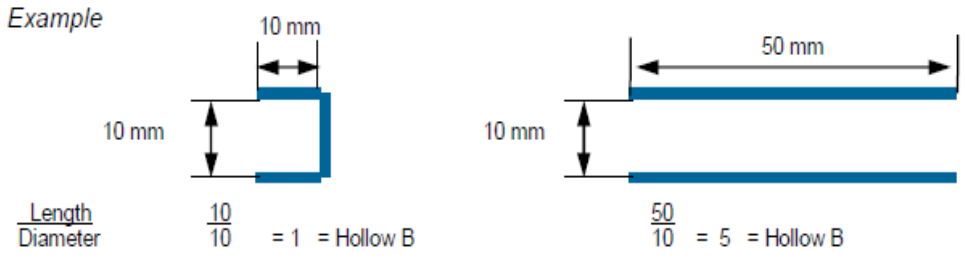
ii. Double ended open space where the ratio of length of diameter of the cavity is greater than or equal to 2 and less than or equal to 1500 (2 ≤ L/D ≤1500) and where the length of the cavity is not greater than 3000mm (L ≤ 3000mm) and which is not hollow load B.



Hollow B

i. Single ended open space where the ratio of length to diameter of the cavity is greater than or equal to 1 and less than or equal to 5 (1 ≤ L/D ≤ 5) and where the diameter is greater than or equal to 5mm (D≥ 5mm), and

ii. Double ended open space where the ratio of length to diameter of the cavity is greater than or equal to 2 and less than or equal to 10 (2 ≤ L/D ≤10) and where the diameter is greater than or equal to 5mm (D≥ 5mm).



Definitions from EN 13060:2004, examples sourced from www.stshealth.com.au

Appendix I: Chemical indicators

Chemical indicators provide information about conditions in the steriliser in the locations where they are placed and show that specific sterilisation parameters have been reached by changing colour. They do not prove sterility.

Chemical indicators vary in their sensitivity, for example, Type 1 chemical indicators are only sensitive to changes of temperature, whereas Types 5 and 6 are sensitive to variables such as temperature, time and moisture (steam).

Chemical indicators are classified according to their sensitivity and intended use, they have no hierarchical significance.

Type 1	**Process indicators** – indicate exposure to the sterilisation process and so differentiate between processed and un-processed loads. Examples: tape and labels indicated for steam sterilisers; indicator integrated into paper/ plastic sterilisation packaging.
Type 2	**A specific test** – either a Bowie-Dick-type test or a helix process challenge device: • Bowie- Dick type test (flat pack) – required for porous loads (for example, cotton rolls, gauze packs for post-extraction). • Helix test (coil) – required when the steriliser is used to process solid or hollow loads.
Type 3	**Single-variable indicator** - react to a single sterilising parameter and only used in dry sterilisation processes.
Type 4	**Multi-variable indicators** - designed to react to two or more sterilising parameters (for example, time and pressure) at the values of the parameter stated by the manufacturer.
Type 5	**Integrating indicators -** designed to react to all sterilisation parameters stated by the manufacturer. They are generated to be equivalent to the performance requirements for biological indicators.
Type 6	**Emulating indicators** - designed to react to all sterilisation parameters for specified cycles. This means a range of Type 6 chemical indicators will need to be available; each applicable for use with only one specific combination of time and temperature.

Appendix J: Process to follow when a patient is exposed to the blood of a practitioner

8 You must follow the applicable procedure specified in the table below, in the event you sustain a sharps injury resulting in exposure of the patient's tissues to your blood (typically while performing an EPP).

A. When you know you are **infected with a BBV,** you must:	B. When you are **not known to be infected** with a BBV, you must**:**

• Stop work immediately and apply first aid procedures to the wound
• Inform the patient of the incident, and your infected status immediately
• Inform the BBV panel immediately and follow their advice
• Inform the patient that they will be contacted by a medical practitioner from the Council's BBV panel who will explain the risks associated with the incident and offer the appropriate medical advice; and
• Document the incident:
  ○ Name and details of the patient
  ○ The name of the injured practitioner
  ○ Date and time of the exposure
  ○ Nature of the incident, and how it occurred
  ○ Actions taken; including who was informed of the incident and your infected status, and when.
• Complete the relevant ACC forms if required.
If the sharps item **was first contaminated by contact with the patient**, you must additionally:
• Inform the BBV panel that the injury sustained was from an item that was first contaminated by contact with the patient.
	• Stop work immediately and apply first aid procedures to the wound
	• Inform the patient of the incident
	• Recommend the patient seek immediate advice from a specialist medical practitioner/s regarding testing to determine their serological status in relation to HBV, HCV and HIV, appropriate post-exposure prophylaxis, and follow up requirements; this advice may be sought from the Infectious Diseases Team (or Emergency Department) of their regional hospital[18]
	• Undergo testing for HBV, HCV and HIV to determine your serological status at the time of injury
	• Document the incident:
	  ○ Name and details of the patient
	  ○ The name of the injured practitioner
	  ○ Date and time of the exposure
	  ○ Nature of the incident, and how it occurred
	  ○ Actions taken; including who was informed and when
	  ○ The patient's consent, or refusal, for medical advice; and
	• Complete the relevant ACC forms.
	If the sharps item **was first contaminated by contact with the patient**, you must additionally:
	• Promptly seek specialist medical advice regarding the appropriateness of post-exposure prophylaxis for yourself
	• Undergo follow up testing at 1 month, 3 months and 6 months following exposure.
	If you have a **positive test result** from the test taken at the time of injury, you must:
	• immediately stop performing EPPs

[18] A list of regional hospital contact numbers is available on the Dental Council website.

	• immediately inform the patient of your positive test result • follow the process in Appendix A of the practice standard.