ACT Health

Infection Control Guidelines *for* office practices and other community based services

2006

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ABBREVIATIONS

ACHS	Australian Council on Healthcare Standards
ANCA	Australian National Council on AIDS
AS	Australian Standard
AS/NZS	Australian New Zealand Standard
BEPCON	Building, Electrical and Plumbing Control
EQuIP	Evaluation and Quality Improvement Program
NATA	National Association of Testing Authorities
NH&MRC	National Health and Medical Research Council
PALM	Planning and Land Management
TGA	Therapeutic Goods Administration
DoHA	Department of Health and Ageing

INTRODUCTION

ACT Health *Infection Control Guidelines for office practices and other community based services* (the Guidelines) are applicable to any business that performs skin penetration or infection risk procedures. The Guidelines should be read in conjunction with the ACT Health *Infection Control for office practices and other community based services* Code of Practice (the Code).

The Guidelines provide information on minimum standards of infection control for businesses and operators who perform procedures which may result in the transmission of disease. The Guidelines are based on the key principles of infection control, those being hygiene, cleanliness and sterility. They include information on the implementation of standard and additional precautions, the reprocessing of appliances, occupational health and safety considerations, safe disposal of clinical waste, environmental maintenance and premise construction requirements.

Businesses covered by the Code may include but not be limited to:

Health and allied health care services (including government owned):

- Dental practices;
- Diagnostic clinics;
- Pharmacies;
- Podiatry clinics;
- Acupuncture clinics; and
- Pathology collection centres.

Personal service industries:

- Beauty therapists;
- Tattoo studios;
- Body piercing studios;
- Mobile practitioners; and
- Ear piercing businesses.

Other businesses/individuals that perform procedures that may result in the transmission of disease may also utilise the Guidelines to implement appropriate Infection Control practices.

Important Note

The Guidelines should be read in conjunction with the Code. The Code details a set of standard outcomes, which are required to be adhered to, or achieved by, the business, premises or practitioner.

All businesses and practitioners are bound by the requirements of the Code. The Code is enforceable under section 20 of the *Public Health Act 1997* and is based upon recognised national infection control guidelines and Australian Standards.

Proprietors are required to take reasonable measures to ensure that all staff are aware of and comply with the contents of the Code.

Breaches of the Code

The proprietor of any business bound by the Code must inform Health Protection Service (HPS) of any incident that occurs at the premises, which results in a major breach of this Code.

An incident notified under section 20 of the *Public Health Act 1997* must be reported by telephone on 6205 1700, within one business day of the incident taking place.

Failure to comply with this section may result in conditions being placed on a business licence, that licence being revoked or relevant action taken under the *Public Health Act 1997*.

For further information about how businesses, proprietors or practitioners can meet the requirements of the Code, contact the Infection Control Unit, Health Protection Service, ACT Health during business hours on (02) 6205 1700.

Guideline Objectives

The objectives of the Guidelines are to ensure that operators have information on how to achieve the standards contained in the Code.

The Guidelines provide information on practices to:

- minimise the risk of transmission of blood borne and other infections by the adoption of Standard Precautions during skin penetration and infection risk procedures;
- ensure appliances are clean and sterile before being introduced into human tissue;
- minimise the risk of transmission of microorganisms between the practitioner, the appliances used and other clients/patients;
- promote a safe working environment for staff performing skin penetration and infection risk procedures; and to
- promote public awareness of safe working practices and procedures in businesses affected by the Code.

The Guidelines are set out into four parts:

- Part One details infection control practices;
- Part Two details the requirements for the management of appliances within a business or facility;
- Part Three details extra industry specific requirements for acupuncturists, beauty therapists, body piercers, dentists, mobile operators and tattooists; and
- Part Four details recommendations for new office based premises and premises undergoing refurbishment.

Administration of the Guidelines

Employee knowledge of the Guidelines

The proprietor or manager of a business is required to comply with the Code and ensure that all procedures performed by practitioners or persons engaged by the business are completed in such a way, as to protect the public from the transmission of blood borne and other infections. Employers should ensure that all staff are aware of the contents of the Code and these Guidelines.

Disclaimer of liability

- This document has been prepared in consultation with a wide range of experts within relevant fields, infection control practitioners, professional organisations, licensed business proprietors and the general community.
- The Guidelines reflect the current state of infection control knowledge, and while every effort has been made to ensure its accuracy, practitioners should be aware that it could be altered in the future to reflect changes in knowledge concerning transmission of blood borne and other infections.
- Neither ACT Health nor any person involved in the preparation of the Guidelines accepts any contractual, tortious or other liability whatsoever in respect to the contents of the Guidelines or any consequence arising from its use or representations made in relation to the Guidelines.

Acknowledgements

The Guidelines are based upon a number of national infection control documents including:

- Australian Government Department of Health and Ageing (DoHA), 2004 "*Infection control guidelines for the prevention of transmission of infectious diseases in the health care setting*".
- Australian/New Zealand Standard (AS/NZS) 4815:2006 "*Office-based health care facilities – Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment*".
- Australian/New Zealand Standard (AS/NZS) 4187:2003 "*Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities*".

PART ONE: INFECTION CONTROL PRACTICES

The primary purpose of infection control, in the context of the Guidelines, is to minimise the risk of infection during the provision of services. The following sections provide information on the principles of infection control practice, as well as practical methods for implementing these principles.

1.1 Standard Precautions

Standard Precautions are work practices, which require everyone to assume that all blood and body substances are potential sources of infection, independent of perceived risk. Such precautions involve the use of safe work practices, protective barriers and the safe disposal of body substances and soiled material.

Standard Precautions apply to all body fluids, regardless of whether they contain visible blood (including dried body substances such as dried blood or saliva), secretions and excretions (excluding sweat), non-intact skin and mucous membranes.

The principle underlying Standard Precautions is the assumption that all clients/patients and practitioners are potentially infected with blood borne or other communicable diseases, irrespective of the perceived risk.

Standard Precautions include:

- good hygiene practices, particularly washing and drying hands before and after client/patient contact;
- use of protective barriers where appropriate, including gloves, gowns, plastic aprons, masks, eye shields or goggles;
- appropriate handling, storage and disposal of sharps, and other contaminated or infectious waste and linen; and
- use of aseptic techniques to minimise the risk of introduction or transmission of infection.

1.1.1 Handwashing

Handwashing is an important factor in controlling and managing infection risks.

(a) It is important that hands be washed before significant contact with any client/patient and after activities likely to cause contamination.

(b) Hands and other skin surfaces that are soiled with blood or body substances are required to be washed with liquid soap and water immediately, or as soon as possible, after soiling.

(c) Hands should be washed before and after using gloves.

(d) Nailbrushes are not recommended for scrubbing hands, unless used as part of a surgical scrub, as they may cause damage to skin. A break in the skin's integrity increases the risk of the individual contracting an infection.

(e) Following effective handwashing and rinsing, hands are required to be dried thoroughly using disposable paper towels or single use clean cloth towels. A pump pack dispensed moisturising cream can also be used to prevent chaffing and improve skin integrity.

(f) If cloth towels are used a single use towel should be used each time.

(g) If hands-free taps are not available, a technique should be developed to ensure that clean hands are not re-contaminated by contact with taps.

(h) A liquid skin cleanser should be used for regular hand washing, which should be pH neutral and should not contain any added substances that may irritate or dry the skin. An anti-microbial hand wash should be used before carrying out procedures involving entry into normally sterile tissue.

(i) Due to the difficulty in cleaning, it is preferable to replace plungers when skin cleanser and moisturising cream containers become empty. If re-useable liquid skin cleanser/ moisturising cream containers or plungers are used, they should be cleaned and dried prior to refilling. Failure to do this could result in the contamination of the liquid skin cleanser from the previously contaminated container or plunger.

(j) In field situations, where handwashing facilities are limited or not available, it is recommended to use a detergent-containing towelette to cleanse the hands before using an alcohol base chlorhexidine or triclosan handrub/handwash gel.

(k) Cuts and abrasions on hands should be covered with an occlusive dressing which should be changed when it loses its integrity (such as when the dressing becomes soiled or wet).

Routine handwashing should be used before and after significant contact with clients/patient and after handling appliances or equipment contaminated with blood or body substances *(see Appendix Three)*.

A routine handwash involves:

- wetting hands thoroughly and lathering with a pH neutral liquid soap;
- vigorously rubbing hands together for at least 10 to 15 seconds *(see Diagram One);*
- rinsing hands under warm running water; and
- drying hands with a disposable paper towel or single use cloth towel.

For non-surgical procedures which require aseptic techniques *(see Appendix Three)*, hands are required to be:

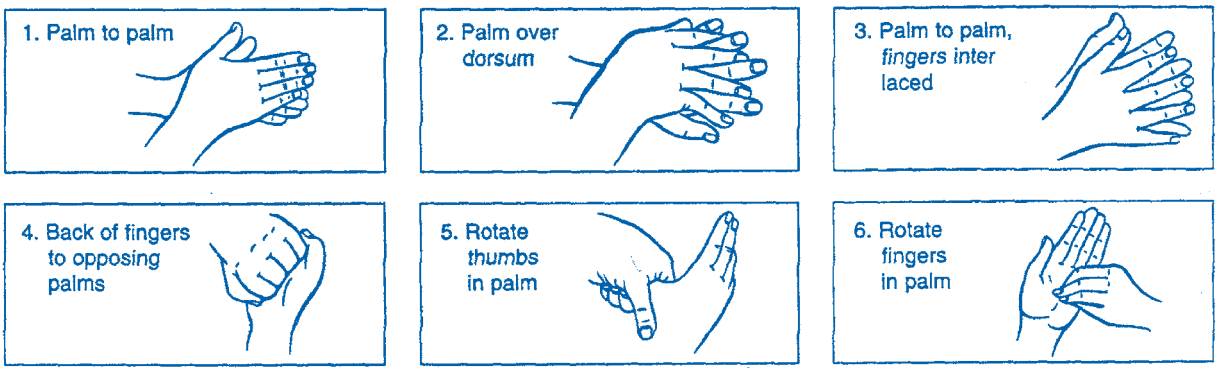
- washed thoroughly for at least one minute using a liquid anti-microbial soap or skin cleanser, paying particular attention to the space between the fingers and around the nails *(see Diagram One)*;
- carefully rinsed, keeping hands above the elbows; and
- dried with paper towel or single use cloth towel.

A surgical handwash is required before any procedure that involves the surgical penetration of normally sterile tissues **(see Appendix Three). This includes surgical entry into tissues, cavities or organs for diagnostic or therapeutic purposes. A surgical handwash is required prior to wearing sterile gloves.

A surgical handwash involves:

- hands, nails and forearms being washed thoroughly to remove dirt and transient bacteria with a suitable liquid anti-microbial soap or skin cleanser;
- the first surgical handwash for the day being for a minimum of five minutes with subsequent washes being for three minutes; and
- hands being dried carefully using sterile towels.

Diagram One: Handwashing technique



(Source: *Ansell Medical*)

1.1.2 Personal Protective Equipment (PPE) for practitioners

In determining the type of protective barriers to employ for a particular procedure, the operator should consider:

- **the probability of exposure to blood and body fluids;**
- **the amount of blood and body substance likely to be encountered;**
- **the type of body substance involved; and**
- **the possible transmission route of pathogens.**

It is important that protective clothing and equipment be available and accessible in each establishment and may include:

- gloves;
- eye and/or facial protection;
- masks;
- gowns and aprons;
- appropriate footwear; and
- provision of safe needle handling systems.

** Oral surgical procedures may involve an incision into the musosa and raising of the muco-periosteal flap. This includes, but is not limited to, Exodontia, Periodontal surgery, Endodontic root surgery, implants and biopsy.

(a) Gloves:

- should be worn when contact with blood and/or body substances is anticipated;
- should be appropriate to the task:
  - sterile gloves for procedures requiring an invasive surgical or oral surgical procedure;
  - non-sterile gloves for procedures other than the above; and
  - general purpose utility gloves for housekeeping chores including cleaning.
- are required to be removed and/or changed between clients/patients to avoid cross contamination, including:
  - when performing separate and distinct procedures on the same client/patient;
  - before contact with doors;
  - before answering the phone or recording in the client/patient notes;
  - if there is any evidence of faults, holes, tearing or deterioration; and
  - when they become grossly contaminated with body fluids.
- should be worn when handling pathology specimens, even when the specimen is enclosed within a leak-proof container;
- are available for staff with latex sensitivities (powder free and non latex gloves can be used);
- such as 'utility gloves' may be reused unless there is evidence of deterioration;
- such as 'reusable utility gloves' should be washed in warm soapy water and stored dry after each use; and
- are not a substitute for handwashing. Hands should be washed both before and after wearing gloves.

(b) Eye/Facial protection:

- are required to be worn when performing procedures that are reasonably likely to be associated with splash or spray of blood or body substances.

Eye protection:

- should be distortion free, optically clear and anti-fogging (prescription glasses are not sufficient);
- should fit close to the head and be shielded at each side and comply with AS/NZ 1337:1997 *Eye protectors for industrial applications;* and
- may be reused after cleaning with detergent and water.

(c) Masks:

- an appropriate mask is required to be worn by the practitioner when there is a likelihood of splashing or splattering of body substances or where airborne transmission may occur;
- a fluid-repellent mask is required to be used when aerosolation or splattering of blood is possible;

- should be worn and fitted according to manufacturer's instructions;
- should be changed after 20 minutes of continuous exposure to aerosols or sooner if they become moist or visibly soiled;
- should not be worn loosely around the neck, but be removed and discarded as soon as practicable after use;
- should be removed by touching the strings and loops only; and
- should not be touched by hand while being worn as this can contaminate hands as well as make the mask permeable to fluids.

(d) Gowns and/or disposable plastic aprons:

- should be worn when there is any possibility of contamination of clothing or skin by splashing/spraying of blood or body fluids.

(e) Footwear:

- should be enclosed and capable of protecting feet from injury or contact with sharp objects and contamination from spilled substances.

Supplies of personal protective equipment (gowns, gloves, masks and protective eyewear) are required to be available for staff and located in close proximity to treatment and cleaning areas.

1.1.3 Handling and disposal of sharps

Sharps represent a major cause of incidents involving potential exposure to blood borne diseases. Resheathing of single use needles should be avoided.

(a) The management and safe disposal are the responsibility of the practitioner that generates the sharps.

(b) Sharps should not be resheathed and should be discarded as soon as practicable, after the risk prone procedure is completed. In general, this will be at point of use and into an approved sharps container.

(c) Needles should not be removed from syringes for disposal, purposely broken, or otherwise manipulated by hand.

(d) Resheathing of used needles is not recommended due to the high risk of needle stick injuries. However, in certain circumstances such as dentistry, resheathing may be required. Where resheathing of needles cannot be avoided:

- the practitioner is responsible for ensuring the needle is properly recapped;
- the sheath should not be held in the fingers; and
- either a single handed technique using forceps or a specially designed protective guard or approved recapping device should be used.

(e) Disposable sharps are required to be placed in a designated puncture-resistant container that meets AS 4031:1992 *Non-reusable containers for the collection of sharp medical items used in health care areas,* or AS/NZS 4261:1994 *Reusable containers for the collection of sharp items used in human and animal medical applications.*

(f) Sharps containers should:

- not be filled above the line indicated on the container;
- not be double handled from one container to another;
- be positioned for easy access;
- be out of reach of children (opening should be approximately 1.2m from floor level);
- be closed before disposal; and
- be disposed of by a licenced clinical waste contractor.

1.1.4 Management of waste (other than sharps)

Management of waste must comply with the *ACT Clinical Waste Act 1990*, the Clinical Waste Manual 1991, the *ACT Public Health Act 1997*, AS/NZS 3816 and the *ACT Waste Minimisation Act 2001*.

(a) Clinical waste should be segregated and contained at the source of generation using appropriately colour coded and labelled containers *(see Appendix One)*.

(b) Receptacles for clinical waste are required to:

- comply with AS 4031:1992, AS/NZS 4261:1994 and AS/NZS 3816:1998 *Management of clinical and related waste;*
- be clearly identifiable and be available at point of use;
- be securely closed before transporting to another location; and
- be removed and disposed of by a licenced clinical waste contractor.

(c) A designated secure area or container is required to be set aside for the short term storage of clinical waste prior to collection by an authorised waste removal contractor. This area is required to be protected from weather and unauthorised access.

1.1.5 Aseptic technique

All procedures are required to be performed so as to reduce the risk of infection or cross contamination.

(a) Aseptic technique refers to the practices used by practitioners to:

- reduce the number of infectious agents;
- prevent or reduce the likelihood of transmission of infectious agents from one person or place to another;
- minimise the risk of the introduction of infectious agents into the sterile field of operation; and
- maintain objects and work areas, as free as possible, from infectious agents.

(b) Aseptic technique includes:

- handwashing or cleaning to reduce the number of infectious agents on the skin;
- use of barriers to reduce transmission of infectious agents;
- use of environmental controls; and
- reprocessing of appliances and equipment between patient/client use.

1.1.6 Operating field

All practitioners undertaking invasive procedures should adopt the concept of the 'operating field' and thus minimise the risk of cross contamination.

(a) Anything within a defined radius of the invasive procedure is required to be cleaned and decontaminated between each and every patient/client. The operating field includes anywhere that the patient's/client's blood (and other body fluids, including saliva) may conceivably transfer during procedures.

(b) In dentistry the use of barriers will assist in reducing contamination of difficult to clean surfaces within the operating field.

1.1.7 Skin disinfectants (antiseptics)

Skin disinfectants are formulated to reduce transient bacteria on the client/ patient and thus prevent cross contamination.

(a) Where appropriate[1], before commencing a skin penetration procedure the area to be penetrated should be wiped with a suitable skin disinfectant.

(b) Suitable skin disinfectant solutions include the following preparations:

- 70-80% w/w ethyl alcohol (ethanol);
- 60-70% v/v isopropyl alcohol (isopropanol);
- chlorhexidine in aqueous formulations (0.5-4% w/v) or in alcoholic formulations with chlorhexidine (0.5-1% w/v) in 60-70% isopropanol or ethanol;
- 10% w/v aqueous or alcoholic povidine-iodine (1% w/v available iodine); and
- solutions containing 1% w/v diphenyl ether (triclosan).

(c) The disinfectant should:

- be dry before commencement of the procedure;
- not be removed from the skin prior to the commencement of the procedure;
- not be used after the recommended expiry date; and
- be used in accordance with the manufacturer's instructions.

[1]It is recognised that in some situations such as in an emergency or during immunisation, the use of a skin preparation will not be appropriate during a skin penetration procedure.

1.2 Additional Precautions

Additional Precautions are designed to interrupt transmission of infection by the routes listed below and are required to be used in addition to Standard Precautions.

(a) Additional Precautions are used for patients/clients known or suspected to be infected or colonised with clinically important or highly transmissible pathogens that can cause infection by:

- air borne transmission (e.g. *Mycobacterium tuberculosis* (TB), measles virus, varicella (chicken pox) virus);
- droplet transmission (e.g. mumps virus, Bordetella pertussis (whooping cough), influenza virus);
- direct or indirect contact with dry skin (e.g. colonisation with multi resistant *Staphylococcus aureus*) or with contaminated surfaces; or
- any combination of these routes.

(b) Additional Precautions are required to be used **in addition** to Standard Precautions when transmission of infection might not be contained by Standard Precautions alone. Additional Precautions may be specific to the situation required, or may be combined where microorganisms have multiple routes of transmission.

(c) Appropriate Additional Precautions are primarily required for use in acute and semi acute health care facilities, where the infectious status of clients/patients is more likely to be known. Additional Precautions may include any combination of:

- allocation of a single room with dedicated toilet facilities;
- additional use of protective barriers (eg masks for staff to minimise the risks of respiratory infection); and/or
- dedicated patient/client equipment.

In office practice waiting rooms, triaging suspected infectious respiratory disease carriers ahead of others is recommended to decrease potential exposure time to clients/patients.

1.3 Other Infection Control Practices

1.3.1 Practitioner health

A practitioner who has a condition that may be transmitted to a client/patient is required to take preventative measures to minimise the risk of transmission of the condition.

(*see Section 99 Principles - Notifiable conditions Public Health Act 1997*).

(a) Preventative measures may include:

- precautions taken on the advice of a medical practitioner or an authorised officer;

- use of occlusive dressings where broken skin or infections occur on exposed parts of a practitioner's body that may come into contact with the patient.

(b) Practitioners should maintain an appropriate level of hygiene and cleanliness when attending to clients/patients.

1.3.2 Environmental cleaning

Although environmental surfaces play a relatively minor role in the transmission of infections, regular cleaning and maintenance schedule is necessary to maintain a safe environment.

(a) A routine and regular cleaning schedule of the premise is required to be employed to reduce the level of environmental contamination. Routine cleaning involves:

- cleaning and drying of work surfaces after each session or when visibly soiled;
- use of detergent and warm water;
- use of disinfectants (if required);
- emptying and cleaning buckets and storing dry; and
- cleaning mops in detergent and water and storing dry after use.

(b) Chemical disinfectants are not recommended for routine environmental cleaning. If they are to be used, the surface is required to be cleaned with detergent and water first, then the disinfectant used as per manufacture instructions.

(c) Cleaning procedures should minimise the dispersal of micro-organisms into the air.

(d) Following the treatment of a client/patient, all contaminated appliances are required to be removed from the treatment area and either disposed of or reprocessed in accordance with Part Two of these guidelines.

(e) Appliances that are no longer used by the business should be removed from the premises.

(f) A regular pest control program should be employed to ensure the control of vermin.

1.3.3 Linen and laundering

Linen such as pillowcases and sheets used on examination tables are required to be changed between clients/patients.

(a) Protective paper covers may be used over or instead of linen but are required to be changed between clients/patients. If used over linen, the linen is required to be changed at the end of each session and when visibly soiled.

(b) Linen and protective paper covers should be stored in a manner to prevent contamination.

(c) Routine laundry practices, as per AS 4146:2000 *Laundry practice*, are adequate for processing all linen.

(d) All used linen and protective paper covers are required to be handled in accordance with the relevant linen and waste management standards and guidelines.

1.3.4 Single-use medications, injectables and instruments

To avoid cross contamination, single-use equipment should be used.

(a) Single-dose vials

- medications or solutions that come into contact with normally sterile tissue should be sterile;
- the most effective way to avoid cross-infection, via injection of medication, is through the use of single-dose vials or ampoules and single-use sterile injecting equipment.

Refer DoHA, 2004 *Infection control guidelines for the prevention of transmission of infectious diseases in the health care setting, Section 6.3.1*.

(b) Multidose vials

- Injectable products packaged in multidose vials should not be used except where products such as insulin are intended solely for the exclusive use of an individual patient. In these particular cases, specific protocols should be in place to ensure that the products are used for those individuals only. Every precaution should be taken to ensure that the unused portion of the vial is not contaminated, including using a clean needle and syringe to draw up the remaining contents of the vial on every occasion.
- Practitioners should be aware of situations where cross-contamination might occur during routine medical or dental procedures. When single dose vials or ampoules are not available, the risk of cross-contamination is high if injectable products are used on multiple patients. The risk may be controlled by:
  - drawing up all the contents of the container into individual syringes before administering to patients;
  - establishing a separate area designated for the placement of these medications away from the any work area;
  - covering the medications to prevent environmental contamination;
  - having only the current patient's medication in the immediate working environment;
  - using a clean needle and syringe to draw up the remaining contents of the vial/ampoule on every occasion; and
  - discarding any open ampoule(s) at the end of each procedure.

(c) Single-use instruments and equipment

- Instruments or equipment labelled as single use, or single use disposable by the manufacturer should be disposed after use. If it is unclear whether an item is single-use or reusable, contact the manufacturer/supplier for advice.

1.3.5 Blood and body substance spills

Blood and body substance spills pose a health risk.

(a) If a visible spillage of blood or body substance occurs:

- wear disposable gloves and protective clothing *(see Section 1.1.2);*
- pick up broken glass or any other sharp included in the spill with forceps and dispose of into an approved sharps container;
- wipe up blood and/or body substances using disposable wipes or paper towels;
- clean surface with detergent and warm water using disposable wipes or paper towels;
- rinse and dry surface (carpeted areas should be shampooed);
- place all soiled materials in an approved yellow clinical waste bag; and
- wash hands after removal of gloves.

(b) All staff members within the business should have knowledge of and access to a current and recognised documented procedure for spill management.

1.3.6 Sharps injuries and blood and body substance exposures

Exposures can occur from injuries inflicted by sharps or by splashes into the eyes, nose, mouth or on to non-intact skin.

(a) The manager, or the licensee of a business, should appoint a designated officer, as the point of contact, to be responsible for management of exposures to blood and body fluids at each facility. Sole practitioners should ensure they are aware of appropriate procedures for dealing with occupational exposures.

(b) All staff members within the business should have knowledge of and access to a current and recognised documented procedure for managing an occupational exposure to blood or other body substance. These procedures should be reviewed regularly and this review documented. Any necessary changes identified should be clearly defined and responsibilities developed for their implementation and completion.

(c) After exposure to blood or other body substances the following action should be taken as soon as is safe to do so:

- where the exposure involves a cut or puncture, wash the area thoroughly with liquid soap and water for a period of at least 30 seconds;
- if eyes are contaminated, while open, rinse them gently and thoroughly with water or normal saline;
- if blood or other body substances get in the mouth, spit it out, then rinse the mouth with water several times;
- dispose of needles and/or syringes in the appropriate manner. These items are generally not required to be forwarded to the laboratory for testing; and
- if clothing is contaminated, remove clothing and shower if necessary.

Where water is not available, use of a non-water cleanser or antiseptic should replace the use of soap and water for washing cuts or punctures of the skin or intact skin.

(d) The injured person should report the incident immediately to their supervisor and then go to their medical practitioner, hospital or health centre as soon as possible for assessment of the exposure, blood tests and post exposure counselling.

(e) For the person assessing the exposure, information regarding the type and amount of body fluid involved, the type of equipment/needle being used and the procedure being performed at the time of the exposure is useful in considering the injured persons level of risk.

(f) The injury should be documented and incident records maintained to monitor work practises.

1.3.7 Work place safety

Employers have a responsibility to provide a safe work environment.

(a) A safe work environment involves the provision of adequate staff training, appropriate facilities and equipment. Workplace conditions, structures, policies and procedures are required to be developed to minimise potential hazards.

(b) Both employers and employees are required to be aware of and comply with Workcover requirements and the *ACT Occupational Health and Safety Act 1989*.

(c) Staff should be encouraged to be immunised in accordance with recommendations detailed in the current edition of *The Australian Immunisation Handbook*. Refer to http://immunise.health.gov.au/handbook.htm. Hepatitis B vaccination should be offered to staff in settings where there is any possibility of occupational exposure to blood or body fluids.

(d) Employers have the responsibility to ensure that their staff are aware of guidelines and that the Guidelines are available for reference when needed.

1.3.8 Policies and procedures manual

Policies and procedures should be consistent with national standards and infection control principles outlined in national guidelines.

(a) Policy and procedure manuals based on the procedures performed by the business, should be maintained on the premises and should be consistent with the Code and the Guidelines.

(b) Policies and procedures should be practical, workable, relevant and readily accessible to all practitioners engaged by the business.

(c) A policy manual should be developed for the following procedures (where applicable):

- methods of hand washing - routine and surgical;
- personal protective equipment requirements;

- cleaning procedures between clients/patients, including the cleaning of bench tops and other surfaces;
- handling and disposal of sharps and other waste;
- handling and disposal of used and contaminated linen;
- management of blood and body substance exposures;
- management of blood or body fluid spills;
- processing of re-useable items including cleaning, packaging, sterilisation or disinfection and storage;
- validation of cleaning, disinfection and sterilisation processes;
- staff training; and
- staff immunisation requirements.

(d) It is recommended that a system be developed to ensure proof of sighting and reading of policies and procedures by all staff.

1.3.9 Animals

Animals, except for guide dogs, hearing dogs or assistance animals, should not enter an area where skin penetration or infection risk procedures are undertaken.

No animals are allowed to enter an area where sterile procedures are undertaken (see Section 9 of the *ACT Discrimination Act 1991*).

PART TWO: REPROCESSING OF APPLIANCES

2.1 Management of appliances

This is a guide to assist staff on how the standards contained in the Code may be achieved. Management of appliances must be compliant with the Code, which is based on Australian/New Zealand Standard (AS/NZS) 4815:2006 "*Office-based health care facilities – Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment*".

The level of disinfection or sterilisation subjected to an appliance is based on the degree of risk of transmission of infection involved in the use of that appliance. The category depends on the intended use of that appliance. (*Please note:* appliance categories may change from non-critical to semi-critical if contact with mucous membranes or non-intact skin occurs).

A. Critical:	**Appliances that enter sterile human tissue, body cavity or blood stream must be sterile at point of use.****
B. Semi-critical:	**Appliances that come into contact with intact mucous membrane or non-intact skin should be single use or sterilised after each use. If this is not possible, high-level disinfection is the minimum level of reprocessing that is acceptable.**
C. Non-critical:	**Appliances that come into contact with intact skin are required to be cleaned after every individual use.**

(See Appendix Two)

2.1.1 Cleaning appliances

Cleaning is an important prerequisite for disinfection and sterilisation. Effective cleaning ensures that appliances and equipment are clean to the naked eye and free from any protein residues and other stains.

(a) Re-usable appliances should be cleaned as soon as possible after use to prevent coagulation and drying of blood and proteins. If appliances cannot be cleaned immediately after use, they should be immersed in warm water and detergent prior to routine cleaning and processing.

(b) The method for manual cleaning should be as follows:

- rinse under tepid running water to remove gross soiling;
- fill a sink or bowl with warm water and detergent to the concentration recommended by the manufacturer;
- dismantle or open appliances prior to placement in the cleaning solution;
- wash by scrubbing thoroughly and ensure that appliances are scrubbed below the surface of the water to minimise aerosol production;

** It is recognised that for some dental procedures equipment that enters human tissue, body cavity or blood stream cannot be sterile at point of use. In these situations, equipment must be single patient use only.

- rinse in warm to hot water to remove any residual detergent or other debris;
- dry appliances prior to further processing *(see Section 2.1.5)*; and
- visually inspect the cleanliness of all items.

(c) During this process all appliances should be carefully inspected for damage, rust and faults in function. If any damage, rust or faults are found, the appliance should be removed from service until repaired or replaced.

(d) Scrubbing brushes and burr brushes should be cleaned and autoclaved on a daily basis and stored dry.

2.1.2 Cleaning agents

Cleaning agents are required to be used to remove residual soil and organic matter from appliances and equipment.

(a) Cleaning agents for manual cleaning should be:

- biodegradable;
- non-corrosive;
- non-toxic;
- non-abrasive;
- low foaming;
- free rinsing;
- preferably liquid; and
- of mild alkali formulations.

(b) Cleaning agents for mechanical cleaners should be:

- biodegradable;
- non-abrasive;
- low foaming;
- free rinsing; and
- preferably liquid.

(c) Mild alkaline detergents in the pH range 8.0 - 10.8 are preferred over neutral pH detergents in most instrument processing applications. Alkaline detergents have proven more efficient than neutral detergents in effective cleaning involved with grossly contaminated items. However, some instruments and equipment may be made of materials where the use of neutral detergents may be more appropriate.

(d) Proteolytic enzymatic cleaners should not be routinely used, other than for fiberoptic instruments and accessories, and for other instruments where design characteristics make routine cleaning difficult. If proteolytic enzymatic cleaners are used, personnel using them should be aware of their associated hazards, and protective clothing is required to be made available.

(e) Common household detergents should not be used due to their high foaming properties and the difficulties involved in rinsing items free of residue.

(f) Material Safety Data Sheets for all cleaning agents should be readily available.

2.1.3 Thermal washers/disinfectors

If a large number of appliances need to be cleaned at any one time, the installation of a thermal washer/disinfector could be considered.

(a) If a large number of appliances need to be cleaned at any one time, the installation of a thermal washer/disinfector may be considered a cost effective option. Thermal washer/disinfectors are specially modified dishwashers that are able to rinse, clean and thermally disinfect appliances.

(b) When in use, thermal washer/disinfectors should be operated and maintained in accordance with manufacturer's instructions and AS 2945:1998 *Batch-type washer/disinfectors for health care facilities.*

2.1.4 Ultrasonic Cleaners (UC)

UCs used to assist with the cleaning of jointed and serrated stainless steel and other appliances are required to comply with AS 2773 – 1999 *Ultrasonic cleaners for health care facilities.*

(a) UCs are required to comply with AS 2773:1999 *Ultrasonic cleaners for health care facilities.*

(b) UCs are required to be operated and maintained according to the manufacturer's recommendations.

(c) UCs may be used to effectively clean jointed and serrated stainless steel instruments. Cannulated instruments may be cleaned in the UC provided that the manufacturer's instructions are followed. Plastics and other similar materials may not be successfully processed by this method. Appliances of different metals should not be cleaned together. Cemented glass syringes, mirrors and lenses will be damaged if repeatedly subjected to this process.

(d) Metal vessels with perforations of no more than six millimetres may be used to contain small appliances within the UC. Plastic cups or other vessels should not be used to hold items inside the UC as these vessels prevent effective cleaning.

(e) The operation process for the UC is as follows:

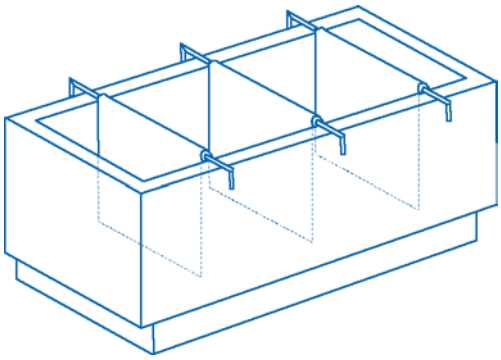
- fill the water tank with cold or tepid water and add the recommended amount of detergent for UC use;
- operate the empty UC for three minutes to degas the solution;
- rinse off any blood or other visible soil before immersing in the UC;
- place jointed appliances opened and unlocked in the UC;
- operate UC for required time - lid closed;
- rinse cleaned appliances and dry; and
- visually inspect the cleanliness of all items.

(f) UC operation should be monitored daily using the aluminium foil test *(see Diagram Two-Ultrasonic Cleaner foil test)*. This test involves the placement of vertical sheets of aluminium foil into the UC filled with an approved UC detergent.

- The foil should be held in place (not with fingers) so that it is suspended in the fluid.
- The UC should be turned on for ten seconds. During this time the UC will put holes in the foil.
- If the holes are uniformly spread across the sheet of foil the UC is operating correctly. If holes are only confined to certain areas and not others, or the foil is without holes, the UC is considered to have failed the test and is required to be serviced prior to its next use.
- Results of the UC foil test should be recorded and kept with other monitoring records.
- On completion of the UC foil test the tank should be drained and thoroughly cleaned to remove any foil residue.

(g) The water and cleaning agent used in the UC is required to be replaced daily or more frequently if visible contamination occurs. UCs are required to be cleaned and stored dry overnight.

Diagram Two: Ultrasonic Cleaner foil test



(Source: *Australian Standard 2773.2:1999*, p16)

2.1.5 Drying of appliances

Drying reduces the risk of recontamination during inspection and assembly of appliances. Residue and moisture interfere with the sterilisation process and can damage appliances.

(a) All appliances are required to be thoroughly dried after the cleaning process.

(b) Drying should be completed immediately after appliances are cleaned through use of a lint free cloth or a drying cabinet.

(c) During this process all appliances should be carefully inspected for damage, rust and faults in function. If any damage, rust or faults are found, the appliance should be removed from service until repaired or replaced.

2.1.6 Packaging of items for sterilisation

Packing items for sterilisation provides an effective barrier against sources of potential contamination, maintains sterility of the appliances and permits aseptic removal of the contents of the pack.

(a) All jointed appliances should be packaged open and unlocked or disassembled, to permit the sterilising agent to come into contact with all surfaces of the appliances.

(b) Instrument sets should be packaged in a manner that prevents damage to delicate items. Packs should not be overfilled.

(c) Sharp appliances should be packed in such a way that the tips of these appliances are exposed to the sterilising agent but will not perforate the packaging material.

(d) All packs placed in the steriliser should be labelled with:

- steriliser identification number or code (if there is more than one steriliser within the facility);
- date of sterilisation;
- cycle load or number; and
- contents of the pack if not visible through the pack.

(e) Prepared labelling systems, non toxic felt tipped marking pens or rubber stamps should be used for labelling packs prior to sterilisation. Sharp tipped, water based or ball type pens must not be used, as these pens may compromise the integrity of the pack.

(f) All packs that are not self sealing are required to be sealed with a heat sealer or sterilising indicator tape. Any method of closure that will compromise the integrity of the pack is not to be used.

2.1.7 Non-conforming stock

Non-conforming stock is required to be reprocessed prior to reuse.

(a) A package shall be considered non-conforming, ie. non-sterile and not suitable for use, when it:

- is incorrectly wrapped;
- is damaged or opened;
- is wet after removal from the sterilising cycle;
- comes into contact with a wet surface;
- is placed or dropped on a dirty surface, e.g. floor or sink area; and
- has no indication of having been through a sterilising process.

(b) All non-conforming packs are required to be repackaged and reprocessed before reuse.

2.2 Disinfection of appliances

Disinfection by thermal or chemical means does not render appliances sterile and must not be used as a substitute for sterilisation.

Disinfection is the destruction, removal or reduction in numbers of micro-organisms and is suitable for appliances which come into contact with, but do not penetrate, intact skin or mucous membranes.

(a) Methods of high level disinfection include:

  (i) Thermal disinfection

  (ii) Chemical disinfection

(b) Prior to disinfection, appliances are required to be cleaned and dried.

(c) Appliances must not be stored in disinfectant before or after any form of processing.

2.2.1 Thermal disinfection

(a) Before thermal disinfection is carried out, the item must be thoroughly cleaned.

(b) For items that are unlikely to contain high numbers of heat-resistant organisms, the following minimum surface temperature time relationships for thermal disinfection are recommended *(see Table One)*.

Table One: Surface temperature time relationships for thermal disinfection

Surface Temperature (°C)	*Minimum Disinfection Time (minutes)*
90	1
80	10
75	30
70	100

(Source: *Standards Australia - AS4815:2006*)

(c) All parts of the item need to be subjected to moist heat at or above the recommended temperature for the recommended duration.

2.2.2 Chemical disinfection

A material safety data sheet should be available and the recommended personal protective equipment should be worn when using any chemical disinfectant.

(a) Chemical disinfectants should only be used on semi critical appliances or non-critical appliances contaminated with blood and body fluids. Thorough washing and drying of appliances, as per Section 2.1.1 and 2.1.5, is required prior to the use of chemical disinfectants.

(b) Washing with detergent and warm water is the preferred method of decontaminating non-critical appliances and surfaces.

(c) Only disinfectants labelled 'instrument grade disinfectants' which is in accordance with the Therapeutic Goods Administration (TGA), are suitable for reprocessing reusable instruments.

(d) High-level instrument grade disinfectants are suitable for use on semi-critical appliances e.g. fibre optic scopes, which contact unbroken mucous membranes that are not normally sterile.

(e) An intermediate-level or low-level instrument grade disinfectant may be used for disinfection of non-critical instruments, which are normally restricted to contact with unbroken skin.

(f) Prior to use of disinfectants, reference shall be made to the relevant Occupational Health and Safety regulations and Material Safety Data Sheets.

(g) When using chemical disinfectants, the manufacturer's instructions are required to be followed in relation to the dilution of the disinfectant and the contact or immersion time.

(h) The appropriateness of the disinfectant is determined by the composition of the surface of the appliance. For example, bleach is not recommended for use on metals, as it tends to corrode and pit metal surfaces. This pitting is difficult to clean and can harbour bacteria.

(i) The expiry date should be checked with each use. Discard expired stock.

2.3 Sterilisation of appliances

All appliances used in procedures involving contact with normally sterile areas of the body must be sterile.

(a) Sterilisation is the validated process used to render a product free of all forms of viable micro-organisms. The two methods of sterilisation available to office-based practice are:

- steam-under-pressure (steam sterilisation using an autoclave); and
- dry heat.

(b) Ultraviolet cabinets, ultrasonic cleaners, heat bead devices, pressure cookers, electric, gas or microwave ovens and boiling do not result in sterilisation and must not be used as an alternative method for the sterilisation of appliances.

(c) Staff involved in reprocessing of appliances are required to have knowledge of correct techniques to ensure sterilisation of appliances.

2.3.1 Steam under pressure (steam sterilisation using an autoclave)

The manufacturer's recommendations and AS/NZS 4815:2006 are required to be followed on the use of steam sterilisers.

(a) Appliances must be thoroughly cleaned and dried as outlined in Section 2.1.1 and 2.1.5 prior to steam sterilisation.

(b) Critical appliances, which are not for immediate steam sterilisation or use are required to be cleaned, dried and wrapped/packaged prior to sterilisation or storage. Materials used for the packaging or wrapping of appliances are required to be suitable for the sterilising method.

(c) Sterilisers without a drying cycle must not be used to sterilise wrapped items.

(d) Loading of the steriliser must be completed in such a manner to ensure that steam comes in contact with all surfaces of the appliance.

(e) The recommended temperature, pressure and holding time, as indicated in Table Two, must be reached when processing appliances.

Table Two: Temperature pressure-time relationship for steam under-pressure sterilisation

Temperature °C	*Pressure kPa*	*Pressure psi*	*Holding Time (minutes) plus safety factor*
121	103	15	15
126	138	20	10
132	186	27	4
134 *CJD[2] 134	203 206	30 30	3 18 minutes or 6 separate 3 minute cycles

(Adapted from *Australian Standard AS 4815:2006*)

(f) Following the sterilising cycle, appliances are required to be removed from the steriliser in a dry condition. Packages removed wet must be assumed non sterile and require reprocessing.

(g) Sterile appliances must be stored and handled in a manner that maintains the integrity of packs and prevents contamination from any source *(see Section 2.1.7)*.

[2]This is the minimum temperature and pressure recommended for sterilising appliances used for clients/patients suspected as having Creutzfeldt-Jakob Disease (CJD) or Subacute spongiform encephalopathy. Cycle times are based on recognised national CJD guidelines at time of publishing. NB. If you are required to use this cycle in office based practice, notify the Infection Control Unit, Health Protection Service, ACT Health on 6205 1700.

2.3.2 Steriliser monitoring

It is essential that staff understand the steps that should be taken to monitor every sterilisation cycle.

(a) Each sterilisation cycle must be monitored and the results recorded. These results are required to be checked by the operator to verify that the correct cycle parameters are met before the load is released for use.

(b) For sterilisers with an inbuilt monitoring facility that produce a permanent record, each cycle is required to be monitored with:

- a printout of parameters at regular intervals throughout the cycle; or
- down loading and reviewing information stored on a data logger after each cycle and prior to release of the load; and
- a class one chemical indicator to distinguish if the load has been processed or unprocessed. (Class one indicators include autoclave tape, sterilizing packaging, chemical indicators and batch labels) *(see Glossary)*.

(c) For sterilisers without an inbuilt monitoring facility, each cycle is required to be monitored with:

- the use of a class four, five or six chemical indicator *(see Glossary)*; or
- direct observation and recording of cycle parameters, for every individual cycle at intervals of 10 seconds.

(d) Biological or enzymatic monitoring are required to be conducted weekly.

(e) If the entire sterilisation process has been validated, biological or enzymatic monitoring does not have to be performed weekly. Biological or enzymatic monitoring is required to be completed as part of the annual validation process *(see Section 2.3.3)*.

(f) Biological or enzymatic indicators are required to be used during installation and testing of sterilisers, and after repairs as part of the validation process.

(g) A control is required to be used when undertaking biological monitoring.

(h) Routine calibration checks and maintenance of all measuring devices, timers, gauges and displays must be carried out by a skilled person, certified by a recognised certification body such as the National Association of Testing Authorities (NATA). The steriliser is required to be calibrated:

- on installation;
- either every six months (if no calibration history exists) or 12 months (where an acceptable calibration history exists);
- after repair; and
- as part of the validation process (*see Section 2.3.3*).

2.3.3 Steriliser validation/revalidation

(a) 'Validation' is a documented procedure for obtaining, recording and interpreting results required to establish that a process will consistently yield a product complying with pre-determined specifications.

(b) Revalidation must be performed annually and after any of the following events:

- installation and commissioning of new equipment;
- servicing of the steriliser;
- modifications or technical changes to the steriliser;
- changes to the packaging/wrapping materials;
- changes to the content of trays and packs that exceed previously validated parameters; and
- changes to the load sizes that exceed previously validated parameters.

(c) Validation/revalidation is most efficiently carried out by practice staff in conjunction with routine, annual calibration and servicing of the steriliser.

(d) To validate/revalidate a sterilising process, three identical, consecutive 'challenge' loads must be performed, monitored and documented (see below).

A 'challenge' load consists of:

- a 'challenge pack' – the most difficult and largest piece/set of equipment sterilised at the practice, packed with a biological/enzymatic indicator placed in the centre;
- additional packs containing appliances used in the practice (fill the remaining available space in the steriliser); and
- an additional biological/enzymatic indicator, placed in the 'cold spot' of the steriliser. (Usually there is a cold spot in a steriliser that has been determined by the steriliser technician. This spot will not change unless repairs have been performed or the steriliser has been moved).

(e) The analysis of the data obtained from the three 'challenge' loads will demonstrate that a cycle for that steriliser, will or will not consistently render a specified load sterile when all parts of the process are followed. Validation is, therefore, not just related to the steriliser, but also to such factors as the load, its preparation and its placement in the steriliser.

(f) **Procedure for validation/revalidation is as follows:**

1. Label biological/enzymatic indicators according to the cycle number and placement position in the steriliser.
   Note: Indicators must all be of the same type and batch number and the use by date must be reviewed.
2. Place a labelled indicator in the centre of the 'challenge pack'.
3. Place a labelled indicator in the 'cold spot' of the steriliser (commonly at the rear near the drain).
4. Place the challenge pack and other packs, which are not as dense or bulky as the 'challenge pack', into the steriliser.
5. Run the steriliser on a regular cycle.

6. Repeat this process two more times, using an identical 'challenge pack' with a new indicator, and a new indicator in the cold spot. When repeating each cycle, packs must be rewrapped with instruments cooled to room temperature.

7. At completion of the three cycles, the seven indicators (6 tests and 1 control) must be incubated (if biological) or treated appropriately (if enzymatic) according to the manufacturer's instructions. Practices may opt to purchase their own incubator (calibrated annually before use), or utilise a local pathology service (Transport the biological indicators to a pathology lab in a cooler box).
Note: A control indicator (one which has not been through the sterilisation process) is utilised to check the viability of the spores.

8. All indicators that have been through the sterilisation process should show no growth. If not, it indicates a process failure. This must be investigated. Document the cause and corrective measures taken. The whole procedure is required to be repeated. **The control indicator should show growth.**

9. The entire validation process is required to be documented. Documentation should include:
    - description of the 'challenge pack' contents and packaging;
    - description of the other contents in the 'challenge' load;
    - diagram showing the placement of all packs in the 'challenge' load;
    - position/location of the indicators;
    - time/date of each 'challenge' load cycle;
    - indicator batch number and expiry date; and
    - results of indicators.

2.3.4 Steriliser failures

In the event that one or more of the monitoring processes fails, the event is required to be investigated and action taken.

(a) All monitoring failures, together with any corrective action, must be documented.

(b) The following is required to be completed in the event of a fault:
- the steriliser is required to be re-tested and the cycle observed to determine if the fault can be identified;
- all critical parameters are required to be checked to ensure there has been no alteration of the cycle set points; and
- if the operator is unable to obtain a successful result after running a test cycle, the steriliser must be taken out of use and a service call placed with a service provider. Following repair, re-validation is required to be carried out by the user at the user site prior to the steriliser being reintroduced for use *(Refer to AS/NZ 4815:2006)*.

2.3.5 Documentation of steriliser cycles

Documentation of steriliser cycles assures monitoring of the steriliser cycle and establishes accountability. It also enables identification of items should evidence indicate sterility problems or failure.

(a) For each sterilising cycle, records are required to be maintained. The cycle records must include:

- the date of the cycle;
- the steriliser number or code (if there is more than one steriliser);
- the cycle or load number (if more then one load per day);
- the exposure time and temperature;
- the name of the person authorising release of load contents;
- a summary of the load contents; and
- the readout or result of chemical, physical or biological/enzymatic indicators.

Note: Existing sterilisers without process recorders need to be upgraded or replaced to ensure automatic parameter recording.

(b) Documented evidence of steriliser calibration and service are required to be kept for each steriliser in use. These records must include:

- calibration of the steriliser;
- mechanical testing;
- any steriliser failures; and
- repairs and preventative maintenance.

(c) Steriliser records should be archived for a period of five years with the requirement that the records for the two most recent years be on-site in the workplace.

2.3.6 Dry heat sterilisation

The manufacturer's recommendations are required to be followed on the use of dry heat sterilisers. .

(a) Appliances must be thoroughly cleaned and dried as outlined in Section 2.1.1 and 2.1.5 prior to dry heat sterilisation.

(b) To achieve sterilisation the appliances are required to be maintained in a dry air oven (dry heat steriliser – hot air type) at 160 degrees Celsius for a minimum holding time of 120 minutes plus penetration time.

(c) Materials used for the packaging or wrapping of appliances must be suitable for the steriliser.

(d) All packaged and wrapped appliances are required to be stored appropriately to maintain sterility.

(e) Monitoring of the steriliser must include:

- weekly biological testing;
- a chemical indicator in every load; and
- physical recording of the time, pressure and temperature every load. Where these parameters are displayed on gauges and devices with no permanent record, the reading should be documented for every individual cycle at intervals of 10 minutes or a Class 4, 5 or 6 (*see Glossary*) chemical indicator specific for dry heat is required and shall be used for each load.

Note: Existing sterilisers without process recorders need to be upgraded or replaced to ensure automatic parameter recording.

2.4 Critical incidents

The proprietor of any business bound by the Code must inform the Health Protection Service (HPS) of any incident that occurs at the premises, which results in a major breach of the Code.

The incident must be reported by telephone on 6205 1700, within one business day of the incident taking place.

Failure to comply with this section may result in conditions being placed on a business licence, that licence being revoked or relevant action taken under the *Public Health Act 1997*.

An example of a major breach of the Code would include the reuse of appliances that have not been effectively cleaned, disinfected and/or sterilised.

For further information relating to this section refer to

AS/NZS 4815:2006 Office-based health care facilities – Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment.

To purchase a copy of AS/NZS 4815:2006 phone Standards Australia on 1300 65 46 46 or access the website at www.standards.org.au

PART THREE: BUSINESS SPECIFIC REQUIREMENTS

Part Three of the Guidelines is directed at businesses that have specific infection control requirements.

It is recognised that this part may not cover all aspects in all businesses, and as such, specific questions may be directed to the Infection Control Unit, Health Protection Service, ACT Health on (02) 6205 1700.

3.1 Acupuncturist

All appliances used in the penetration of skin in acupuncture procedures are required to be sterile and single use only.

(a) Skin is required to be disinfected prior to needle insertion *(see Section 1.1.7)*.

(b) A new swab is required be used for each separate area of the body. For example, if needles are to be inserted into the back and the legs, a separate swab is required for the back and each leg.

(c) All appliances used in the penetration of skin in acupuncture procedures are required to be sterile and single use only. This includes:

- acupuncture needles;
- ear press needles;
- dermal hammer; and
- guide tubes.

(d) Sharps are required to be handled and disposed of in accordance with Section 1.1.3.

(e) Where it is necessary to grasp the needle shaft to facilitate insertion, the following methods must be used:

- use a sterile insertion tube;
- use a fresh pre-packaged sterile alcohol swab or fresh sterile dry swab; or
- use a sterile glove.

(f) Suction cups and other non-sharp devices applied to a skin area directly after the use of a dermal hammer, lancet or prismatic needle, are required to be cleaned and disinfected or sterilised prior to being reused *(See Part Two)*.

(g) Bamboo suction cups are single use appliances and must not be reused, as bamboo is porous and difficult to clean after use.

3.2 Beauty Therapist

Wax must not be reused.

3.2.1 General

(a) Wear single use gloves when performing skin penetration procedures (e.g. waxing, electrolysis).

(b) To prevent contamination of the stock wax, either:

- a new single use spatula is required to be used each time wax is taken out of the pot; or
- the pot is required to be emptied and cleaned between clients and the remaining wax disposed of in an appropriate manner.

(c) Only single use disposable lancets and electrolysis needles are required to be used. These sharps are required to be handled and disposed of in accordance with Section 1.1.3.

(d) All non-invasive appliances such as tweezers, brushes, and applicators used for beauty treatments, should be cleaned thoroughly prior to reuse.

(e) Equipment, other than scissors and clippers, used in manicures and pedicures are required to be single use and disposed of immediately after use.

(f) Reusable makeup application equipment is required to be cleaned thoroughly prior to reuse.

(g) Reusable appliances should not be stored in a disinfectant. They should be appropriately reprocessed and stored dry.

(h) Non critical appliances contaminated with blood or body fluids are required to be cleaned, dried and disinfected prior to reuse.*(see Sections 2.1.1 ,2.1.5, 2.2, 2.2.1, 2.2.2 and Appendix Two)*.

(i) Any appliances which can not be properly cleaned, such as loofah sponges, are required to be single use.

(j) Where permanent makeup is applied through the process of tattooing, the specific requirements for tattooing should be followed (*see Section 3.7*).

(k) Oil, dye, pigment or lotion may be packaged as single use or contained in pump action containers. However, if it is to be used from a multi-use supply, it should be decanted from its container on a single use basis. Fluid remaining at the end of each procedure should be discarded and the used container cleaned and dried before reuse.

(l) Cream may be packaged as single use or contained in a pump action container. If more cream from a multi use jar is required during a procedure, it should be applied with a new spatula.

(m) If reusable pump containers or plungers are used they should be cleaned and dried prior to refilling with fresh fluids or creams. Failure to do this could result in the contamination of the fluid or cream from the previously contaminated container or plunger. Due to the difficulty in cleaning, it is preferable to replace plungers when pump containers become empty.

(n) Foot bath cleaning procedure includes:

- wearing gloves;
- washing in warm water and detergent;
- rinsing in hot running water; and
- drying with lint free cloth.

Note: Cleaning may not be sufficient to remove some fungal micro-organisms therefore disinfection after each client is recommended particularly if the foot bath is a 'spa' type.

3.2.2 Procedure for management of bleeding during nail treatments

As soon as bleeding occurs staff should:

- stop the procedure and put on a pair of disposable gloves;
- place a clean dressing on the wound and apply pressure to stop bleeding;
- if applying styptic, apply it directly onto a cotton bud, ensure the bottle of styptic does not come into contact with the client's skin;
- keep equipment that has been in contact with blood separate from other clean dry equipment;
- place soiled reusable equipment into a smooth washable container to await cleaning;
- discard file heads into rubbish bin and discard blood stained dressing as soon as treatment is complete;
- wipe the electric file handle with detergent and water and a disposable cloth to remove any blood;
- clean work area surfaces (eg. benches, chairs or floors) that have been soiled with blood, as soon as possible, using water, detergent and a disposable cloth;
- dispose of cloths used for wiping up blood; and
- wash hands thoroughly after removing gloves.

3.3 Body Piercer

Jewellery used in a piercing is required to be sterile.

(a) Skin is required to be disinfected prior to a body piercing procedure.

(b) Sterile jewellery is required to be used in a piercing.

(c) Closed ear piercing guns should be used to pierce lower ear lobes only and may not be used to pierce the nose or upper ear. Closed piercing guns are required to be thoroughly cleaned with detergent and water and disinfected prior to reuse.

(d) Cannulas used to pierce the skin are required to be sterile and single use only.

(e) Sharps are required to be handled and disposed of in accordance with Section 1.1.3.

(f) Looped forceps and pliers used during the piercing procedure are required to be sterile. If reused, these appliances are required to be cleaned and sterilised prior to reuse, in accordance with Part Two of these guidelines.

(g) If fingers are used instead of pliers to close the jewellery, sterile gloves must be worn. It is important to prevent contamination of these gloves prior to the procedure.

(h) All clients that receive a piercing should be supplied with written after care information including:

- general care instructions of the piercing;
- cleaning of the piercing site and jewellery;
- piercing healing times; and
- signs and symptoms of infection and who to contact if infection is suspected.

(i) Biopsy or dermal punches should not be used.

3.4 Dentists

Unused appliances remaining on the bracket tray after treatment of a client/ patient should be considered contaminated and are required to be reprocessed.

(a) Slow speed stainless steel burrs are considered single use items and can not be safely reprocessed.

(b) Slow speed tungsten carbide and high speed diamond tip burrs, that are not deemed single use by the manufacture, should be reprocessed by rinsing in tepid water and then cleaned in an ultrasonic cleaner or by hand with a burr brush.

(c) Burrs cannot be safely processed by soaking in a chemical disinfectant. Once clean of debris, tungsten carbide and diamond tipped burrs should then be autoclaved and stored protected from environmental contamination prior to reuse.

(d) Tungsten carbide burrs will corrode with repeated autoclaving and should be discarded when obviously discoloured.

(e) Single use products should not be reused. This includes disposable suction tips.

(f) When retrieving additional appliances and materials outside the operating field (work area) a clean hand, barrier or transfer forceps should be used. It is important that all cupboards and drawers and the appliances therein are not contaminated with dirty gloves.

(g) Disassemble dental handpieces before cleaning. Handpieces must be cleaned and sterilised between patients. Cleaning, lubrication and sterilising should be carried out according to manufacturer's instructions and Part Two of this document. Wiping or soaking in a chemical disinfectant is not an acceptable method for reprocessing handpieces.

(h) Dental units supplying water to intra-oral dental hand pieces must have non-return valves.

(i) Handpieces, triplex syringes, ultrasonic scaler and suction lines should be flushed for a minimum of two minutes at the start of each day and for 30 seconds between patients.

(j) Files, reamers and all other disposable equipment used for pulpectomies are required to be single patient use.

(k) Triplex syringe tips must be removed, cleaned and sterilized after each patient use. If sterilisation is not possible then single use plastic tips must be used.

(l) Ultrasonic scaler tips must be removed, cleaned and sterilised and the handle cleaned with detergent and warm water after each patient use.

(m) Patients should be supplied with protective glasses during treatments to protect the eyes from potentially harmful aerosols generated during treatments. Protective eyewear may be reused after cleaning with detergent and water.

(n) Resheathing of needles is not recommended, however, where recapping of a needle cannot be avoided the person administering the injection should do the recapping of the needle. Recapping should be done using a one handed scoop technique, with forceps, or other approved recapping system.

(o) Sharps are required to be handled and disposed of in accordance with Section 1.1.3.

(p) When using X-ray film, staff should employ the following technique:

- place plastic sleeves over the X-ray film before use;
- remove and discard the sleeve following exposure, without contaminating the film;
- remove and discard gloves; and
- process the non-contaminated film.

(q) Masks used for the delivery of nitrous oxide for anaesthetic purposes should be either disposed of after use or cleaned, disinfected and stored dry.

(r) Persons transporting dental prosthetic items to laboratories off site must not be placed at risk from handling contaminated or unsealed items.

3.5 Dental Laboratory (both on and off site)

Prosthetic items received from off site dental laboratories are required to be rinsed and washed in detergent and water on receipt.

(a) Impressions, wax rims, and jaw registrations try-ins are required to be rinsed and washed in detergent and warm water on receipt in the laboratory.

(b) Prosthetic dental devices (such as dentures and partial plates) are required to be cleaned with detergent and warm water on receipt in the laboratory.

(c) Fresh pumice is to be used for each prosthetic.

(d) Fresh lathe mops/brushes are to be used for each impression/prosthetic. The mops/brushes are to be washed in detergent and warm water and then left to dry following use.

(e) If possible, after cleaning with detergent and warm water, lathe mops/brushes should be placed through a sterilisation cycle.

(f) Persons transporting dental prosthetic items from laboratories off site should not be placed at risk from handling contaminated or unsealed items.

3.6 Mobile Practitioners

Anyone who carries out skin penetration or infection risk procedures away from fixed premises for fee, reward or public service, is considered to be a mobile practitioner and should comply with the Code.

(a) Practitioners who perform infection risk procedures away from approved premises are required to be licensed as a mobile practitioner (refer the *Code Section 5, Licensing requirements and exemptions 5.1)*.

(b) The mobile establishment is required to be maintained in a clean condition at all times and must not be used for food preparation or accommodation.

(c) Practitioners are required to ensure that facilities are available to adequately store all equipment, linen and waste safely before and after use and while in transit.

(d) Transporting sharps and contaminated waste are required to comply with Sections 1.1.3 and 1.1.4.

(e) Practitioners are required to ensure that their hands are adequately washed prior to and after skin penetration or infection risk procedures being performed *(see Section 1.1.1)*.

(f) All practitioners transporting contaminated appliances from one premise to another are required to ensure that the appliances are securely stored in a rigid airtight container.

(g) Sterile items intended for use outside the office practice shall be securely packed and protected against damage and contamination during transportation.

(h) Skin penetration or infection risk procedures carried on at shows, outdoor events, nightclubs, conventions or other public events for fee, reward or public service, must be compliant with the Code.

(i) Any person performing skin penetration or infection risk procedures at shows, outdoor events, nightclubs, conventions or other public events is considered to be a mobile practitioner for the purpose of the Code.

3.7 Tattooist

Tattoo needles and needle bars, tubes or barrels must be cleaned and sterilised before reuse.

(a) If shaving is required, a new disposable safety razor is required to be used for each client and discarded into an approved sharps container.

(b) Skin is required to be disinfected at the site where the tattoo will be carried out.

(c) Sharps are required to be handled and disposed of in accordance with Section 1.1.3.

(d) Sterile disposable single use needles are required to be used.

(e) Needle bars and tubes or barrels used on a client should be clean and sterile.

(f) If petroleum or lubricating jelly is to be used to cover the client's skin, the jelly should be removed from the container using a new wooden or plastic spatula. A new spatula should be used every time more jelly is required from the container.

(g) If a cream, oil, dye, pigment or lotion is being used it should be decanted from its container on a single use basis using a clean spatula. Fluid remaining at the end of each procedure should be discarded and the container cleaned before reuse.

PART FOUR: CONSTRUCTION OF PREMISES IN OFFICE PRACTICE

4.1 Introduction

The correct design of a premise or facility assists in minimising the risk of transmission of infection during the provision of services. Premises without separate and clearly defined treatment, hand washing and cleaning areas may pose permanent problems for staff, clients/patients. It is recognised that not all current premises will meet these standards, however if businesses renovate, relocate or new businesses open, it is a requirement to comply with current standards.

Planning for new construction or major renovation requires early and continuous consultation between architects, engineers, staff operating in the new facility and government authorities, including the Infection Control Unit, Health Protection Service, ACT Health. This consultation process is required, to assist the premises or facility to comply with infection control guidelines, ACT Government legislation and to meet the needs of the facility staff.

Occupational health and safety and cleaning issues are required to be considered at all stages of the design and construction of a premise or facility. The texture of flooring, height and positioning of sinks/basins, benches and switches are required to all be taken into account during the design phase, as they may be difficult and or expensive to rectify after completion of the works.

4.2 Additional resources

This section should be read in conjunction with the *Building Code of Australia* and other documents as specified by ACT Planning and Land Authority (ACT PLA) and ACT Building, Electrical and Plumbing Control (BEPCON).

Prior to the design and construction of health care and other large facilities, other documents be consulted include:

- the Australian Council on Healthcare Standards (ACHS) EQuIP Guide; and
- Australian Standard AS/NZS 4187:2003 *Cleaning, disinfecting and sterilizing reusable medical and surgical appliances and equipment, and maintenance of associated environments in health care facilities.*

4.3 Treatment areas

A hand basin should be installed in close proximity to the treatment area. Where non-invasive procedures are performed the hand basin may be installed adjacent to the treatment room.

(a) The treatment room or area should be of sufficient size to allow procedures to be safely and effectively performed. In determining the size, consideration should be given to any appliances which may be required in the area at the time of a procedure.

(b) All floors, floor coverings, walls, ceilings, shelves, fittings and other furniture should be constructed from materials suitable for the procedures being undertaken in the treatment area.

(c) In areas where blood or body fluid spills are possible, or invasive procedures are performed, smooth impervious and seamless surfaces, including walls, floors and bench surfaces, should be used. Floor coverings should be non-slip.

(d) All fixtures and fittings located in the treatment area should be designed to allow easy cleaning and to limit the accumulation of dust. Materials used in these fixtures and fittings are required to be able to withstand cleaning agents.

(e) A hand basin is required to be installed in close proximity to the treatment area. Where non-invasive procedures are performed the hand basin may be installed adjacent to the treatment room following approval from an authorised public health officer.

4.4 Cleaning areas

The cleaning area is required to be physically separate from the treatment area by design and function to prevent cross contamination.

(a) Provided adequate functional separation can be achieved, these areas may exist in the same room, following approval from an authorised public health officer.

(b) Within the cleaning area, separate areas are required to be provided for contaminated, cleaned and sterile appliances to facilitate the dirty to clean flow. An example of this is shown in Diagram Three (see page 45).

(c) A double bowl sink should be provided if critical or semi-critical appliances are to be cleaned on the premises. Where only non-critical appliances are to be cleaned on the premises, a single bowl sink may be installed.

(d) Sink sizes should be as follows:

- clean up sink: a minimum of 350mm wide by 200mm deep;
- rinsing sink: a minimum of 200mm wide by 150mm deep.

Both sinks should be large enough to allow submersion of the largest appliance to be cleaned.

(e) A single bowl sink may be installed at the premises if appliances are to be re-processed at a premises other than where the procedure was performed. In such situations, a single bowl sink should be installed at the premises for the pre cleaning of contaminated appliances. This sink should not to be used for any other purpose.

(f) Sufficient bench space should be provided to allow appliances to be safely and effectively reprocessed and to accommodate appliances such as ultrasonic cleaners, bench-top steam sterilisers and if required, fume cupboards. Ensure there is sufficient depth in the bench to accommodate these appliances.

It is recommended that there should be at least 400mm of clear bench space available:

- before the clean up sink for dirty appliances;
- for the drying of appliances; and
- for the packing of appliances.

(g) All fixtures and fittings located in the cleaning area should be designed to allow easy cleaning and to limit the accumulation of dust. Materials used in these fixtures and fittings should be able to withstand cleaning agents.

(h) Smooth impervious seamless surfaces including wall, floor and bench surfaces should be used where there is likelihood of fluid spills and splashes to facilitate cleaning. Floor surface should be non-slip.

(i) A hand basin should be provided for staff working in the cleaning room. The hand basin may be installed adjacent to the cleaning room and should be of the same size and dimension as that described in Section 4.7 (b).

(j) A paper towel dispenser should be installed adjacent to the hand basin.

4.5 Storage areas

Design and function should physically separate clean and dirty storage areas although they may be in the same room.

(a) Sufficient storage space should be provided for appliances, procedural and administrative supplies, linen and waste, including general and clinical waste.

(b) Clinical waste storage construction is required to comply with AS/NZS 3816:1998 *Management of Clinical and Related Wastes.* A designated secure area or container should be set aside for the short-term storage of clinical waste prior to collection by an authorised waste removal contractor. This area or container shall be protected from weather and unauthorised access.

4.6 Lighting and ventilation

Where gluteraldehyde is used the recommendations expressed in Worksafe Hazard Alert No.1, 1991 and AS/NZS 4187:2003 are required to be followed.

(a) Sufficient lighting should be provided so that procedures, including appliance cleaning, can be safely and effectively performed. All lighting should comply with AS 1680.2.5:1997 *Interior lighting – Hospital and medical tasks.*

(b) All ventilation systems are required to comply with AS 1668.2:2002 *Mechanical ventilation for acceptable indoor air quality.* A regular maintenance and cleaning program for air conditioning vents, ducts and filters is required to be undertaken.

4.7 Hand basins and sinks

It is important that hand basins be used for hand washing only and not for purposes such as cleaning appliances, washing eating and drinking utensils or disposing of liquids.

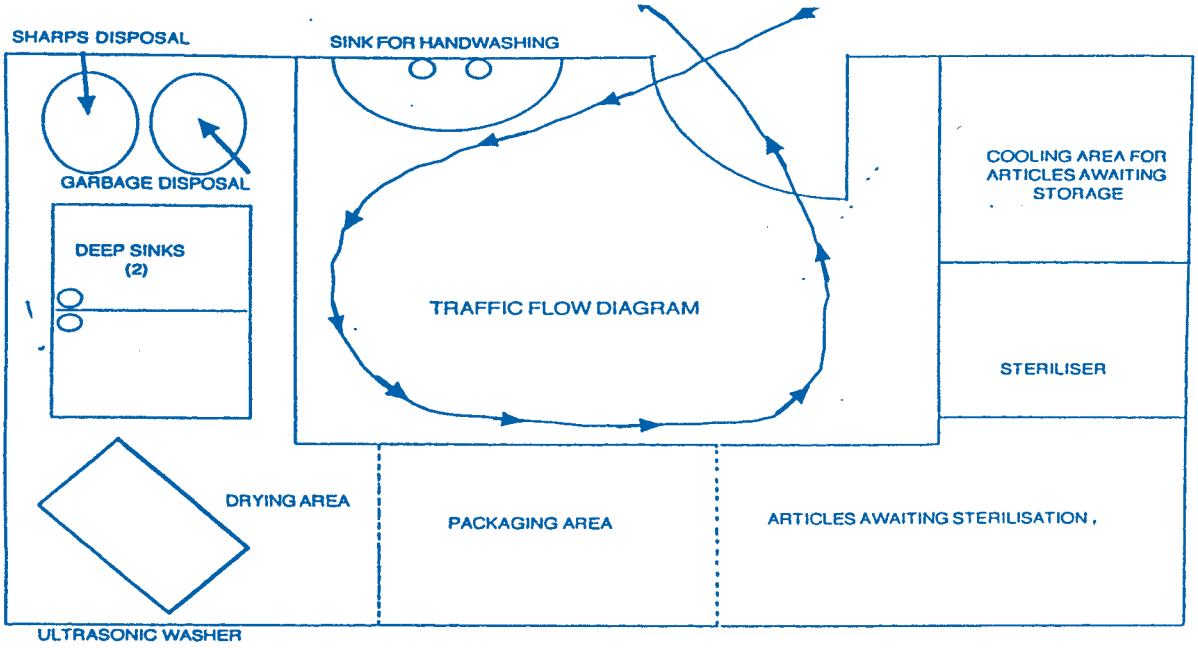
(a) Hand basins should be:

- installed and maintained in such a way that they are readily accessible to the practitioner at all times;
- be at least 300mm x 350mm at the mouth (top) of the basin;
- have a minimum capacity of seven litres;
- be supplied with hot and cold water through a single outlet; and
- fitted with hands-free taps (hands-free taps include elbow operated, foot operated, knee operated or electronically controlled taps).

(b) Sinks used for cleaning contaminated appliances should not be used for hand washing or washing eating and drinking utensils.

(c) A paper towel dispenser should be installed adjacent to the hand basin.

Diagram Three: Example of design of a cleaning room showing dirty to clean flow of appliances and segregation of areas (adaptation may be required for different specialties)



(Source *Lin Lochead 1995*)

GLOSSARY

Additional Precautions: precautions required when standard precautions might not be sufficient to prevent transmission of infection. These are used for patients known or suspected to be infected or colonised by pathogens that can be transmitted by airborne, droplet or contact transmission. Additional precautions are designed to prevent transmission of infection by these agents and should be used in addition to standard precautions when transmission of infection might not be contained by using standard precautions alone.

Antiseptic: a substance that, due to its biostatic nature, is topically applied to tissue to minimise infection.

Appliance: the whole or part of any utensil, machinery, instrument, device, apparatus or article used or intended to be used in connection with the performance of skin penetration or infection risk procedure, or the cleaning or sterilisation of another appliance.

AS: refers to documents published by Standards Australia that form Australian Standards.

AS/NZS: refers to documents published by Standards Australia and Standards New Zealand that form Australian and New Zealand Standards.

Aseptic technique: procedures used to minimise the risk of transfer of micro-organisms

Authorised Officer: the Chief Health Officer, a Public Health Officer, or an Authorised Medical Officer appointed under the *Public Health Act 1997*.

Autoclave: colloquial term for a steam-under-pressure steriliser.

Batch principle: made in one designated cycle of manufacture.

Beauty treatment: includes facials, application of makeup, skin peels, manicures and pedicures, electrolysis, waxing and cosmetic tattooing.

Benchtop steriliser: a self-contained, portable, bench top electrically-heated machine that generates saturated steam within the unit at selected temperatures up to, and including, 136°C.

Bioburden: the number and types of micro-organisms present on an appliance prior to sterilisation.

Biofilm: a layer of material on the surface of an instrument or device which contains biological materials and may be embedded with micro-organisms.

Biological indicator: a population of calibrated bacterial spores on or in a carrier, contained within its primary pack, ready for use, that provides a defined resistance to the specified sterilisation process.

Body fluids: includes any human bodily secretion, excluding sweat, or substance other than blood.

Calibration: comparison of a measurement system or device of unknown accuracy to a measurement system or device of known accuracy to detect, correlate, report, or eliminate by adjustment, any variation from the required performance limits of the unverified measurement system or device.

Chemical indicator: a dye, which can be impregnated into materials or contained within a device, which changes colour when subjected to a sterilising process.

Class one Indicator: a process indicator e.g. steriliser indicator tape, sterilising packaging. These are intended for use with individual units, e.g. packs, containers, to demonstrate that the unit has been exposed to the sterilisation process and to distinguish between processed and unprocessed units.

Class four Indicator: a multi-parameter indicator e.g. time and temperature. These are designed for two or more critical parameters and indicate exposure to a sterilisation cycle at stated values of the chosen parameters.

Class five Indicator: an integrating indicator e.g. time, temperature and moisture. These are designed to react to all critical parameters over a specified range of sterilisation cycles.

Class six Indicator: an emulating indicator (cycle verification indicator) e.g. 134°C for 3.5 min in steam. These are designed to react to all critical parameters over a specified range of sterilisation cycles for which the stated values are based on the settings of the selected sterilisation cycles.

Cleaning: the physical removal of foreign material, for example, dust, soil, organic material such as blood, secretions, excretions and micro organisms. Cleaning physically removes rather than inactivates micro organisms. Cleaning is accomplished with water, detergents and mechanical action, and must precede disinfection and sterilisation.

Clinical waste: see *ACT Clinical Waste Act 1990 and Clinical Waste Manual 1991* (See also Contaminated waste).

Code: the ACT Health *Infection Control for office practices and other community based services Code of Practice 2005* (unless otherwise identified).

Commissioning: the obtaining and documenting of evidence that equipment has been provided and installed in accordance with its specification and that it functions within predetermined limits when operated in accordance with the manufacturer's instructions.

Contaminated waste: wastes arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, and wastes generated in commercial enterprises which contain or involve any blood or body fluids. Contaminated waste is required to be segregated from general waste (See also Clinical waste).

Contamination: the introduction of microorganisms or foreign matter (or both) to sterile or non-sterile materials or living tissue.

Critical medical device: a device which enters, or is capable of entering, tissue that would be sterile under normal circumstances, or the vascular system.

Cytotoxic waste: waste-containing substances that are carcinogenic, cytostatic, mutagenic or teratogenic.

Defined radius: anywhere that the patient's blood or other body fluid, including saliva, may conceivably be transferred during a procedure. (Also known as operating field).

Detergent: a cleaning agent composed of a 'surface wetting agent' which reduces surface tension, a 'builder' which is the principle cleaning agent, and a 'sequestering' or 'chelating' agent to suspend the soil.

Dirty to clean flow: denotes the passage of contaminated appliances through the cleaning room in an ordered, sequential means. The physical segregation of items as they are processed in each stage from contaminated to sterile combined with a unidirectional flow prevents the re-contamination of items at each stage.

Disinfectant: an agent used for disinfection.

Disinfection: the inactivation of non-spore forming micro-organisms using either thermal (heat alone, or heat and water) or chemical means. This process does not kill bacterial spores.

Drying stage (drying cycle): the stage in the sequence of the function of a steam steriliser during which the items in the chamber are dried. This stage occurs immediately following the sterilisation stage whilst the steriliser chamber remains sealed.

Emergency: denotes an event whereby urgent and immediate action is required to prevent deterioration in the patient/clients current condition.

Enzymatic indicator: an indicator that utilizes detection of spore-derived enzyme, rather than the conventional observation of visible organism growth in culture media.

General Waste: includes other wastes that do no fall into the category of clinical waste.

Guidelines: ACT Health, *Infection control guidelines for office practices and other community based services 2006.*

Hands-free: implies the functional construction of taps that require no hand contact by the user after the process of hand washing is complete. Examples of this would include motion sensing, surgical levers, foot operated and single lever mixing taps.

Health care facilities: facilities where prescribed medical procedures are carried on, and/or premises where overnight patient stays are provided prior to, or after receiving medical treatment.

Holding time: the time at a given temperature that has been established to destroy all micro organisms.

Immediate area: within the boundaries of the room where invasive procedures are performed.

Industry: refers to occupational groups not registered as health professionals.

Infection: invasion of the body with organisms that have the potential to cause disease.

Infection Control: strategies that minimise the risk of infection to practitioners, patients and clients.

Infection control guidelines: the *ACT Infection Control Guidelines for office practices and other community based services* (unless otherwise identified).

Infection risk procedure: means any process that involves the insertion of instruments, equipment, foreign objects, substances or other matter inside a human body for cosmetic or therapeutic purposes; or any process that involves the administration of make-up or other like substance on human skin or mucus membrane.

Invasive procedure: any procedure that pierces or breaks skin or mucous membranes or enters a body cavity or organ. This includes entry into tissues, cavities or organs or repair of traumatic injuries.

May: indicates the existence of an option.

Micro-organism: a bacteria, virus, fungus, mould or yeast.

Mobile practitioner: a person who performs skin penetration or infection risk procedures away from fixed premises for fee, reward or public service.

Monitoring: a programmed series of challenges and checks, repeated periodically and carried out according to a documented protocol which records whether the process being studied is reliable and repeatable.

Must: a mandatory requirement.

Non-conforming: sterile appliances that may have been rendered non sterile by incorrect cleaning, moisture, condensation, excessive exposure to sunlight and other sources of ultraviolet light, vermin and insects, inappropriate packaging materials, incomplete sealing of packs, sharp objects, expired stock, rough handling which may cause damage to packaging materials and incorrect handling during transport.

Non-critical medical device: a device that comes into contact with intact skin.

Occlusive dressing: a waterproof wound covering.

Occupational exposure: work practices associated with the potential for percutaneous injury, body substance spill, splash or spray that have the potential to expose the practitioner to an infectious agent.

Operating field: refer to defined radius.

Oral Surgical Procedure: includes, but is not limited to, exodontia, periodontal surgery, endodontic root surgery, implants and biopsy. Oral surgical procedures may involve an incision into the musosa and raising of the muco-periosteal flap.

Pathogenic organism: any organism capable of initiating infection in a susceptible host.

Penetration time: the time required for every part of a load to reach the selected sterilising temperature after that temperature has been reached in the sterilising chamber.

Practitioner: any person who performs skin penetration or infection risk procedures or who reprocesses reusable appliances used in skin penetration and infection risk procedures for fee, reward or public service.

Premises: a permanent or temporary structure or building where skin penetration or infection risk procedures are carried out. This does not include a client or patient's premises when attended by a mobile practitioner.

Procedures: an action or process.

Public Health: The health of individuals in the context of the wider health of the community or the organised response by society to protect and promote health and prevent illness, injury and disability.

Public Health Officer: an Officer authorised under Section 12 of the *Public Health Act 1997*.

Reprocessing: all steps necessary to make a contaminated reusable medical device ready for its intended use. These steps may include cleaning, functional testing, packaging, labelling, disinfection and sterilisation.

Reusable item: an item designated or intended by the manufacturer as suitable for reprocessing and reuse. It is not a device that is designated or intended by the manufacturer for single use only.

Revalidation: The repetition of part or all of the validation test requirements for the purpose of reconfirming process reliability.

Risk prone procedure: any procedure that may result in an individual acquiring an infection.

Safe work practices: practices, which minimise the risk of injury or infection to practitioners and clients/patients.

Semi critical medical device: a device that comes into contact with intact mucous membranes and does not normally enter sterile areas of the body.

Sharps: any objects capable of inflicting penetrating injury, including needles, scalpel blades, wires, trocars, auto lancets, stitch cutters and broken glassware.

Should: indicates a recommendation that is to be followed where possible.

Single patient use item: an item designed for reuse on the same individual. These items may require cleaning if ongoing multiple uses are needed. Once use is no longer required for that individual, the device must then be discarded appropriately.

Single use item: an item designed for single use only and not designated or intended by the manufacturer as suitable for reprocessing and reuse.

Skin penetration procedure: any process involving the piercing, cutting, puncturing or tearing of a living human body but does not include the cutting, shaving, or dyeing of a persons hair, or closed ear piercing or the use of test equipment.

Soil: dirt or debris that may protect, harbour or assist the growth of micro-organisms. Includes inorganic matter and organic matter, such as blood and body substances.

Standard Precautions: work practices which require everyone to assume that all blood and body substances are potential sources of infection, independent of perceived risk. Such precautions involve the use of safe work practices and protective barriers and the safe disposal of body substances and soiled material.

Sterile: state of being free from viable micro -organisms.

Sterilisation: validated process used to render a product free of all forms of viable micro-organisms.

Steriliser failure: the failure of a sterilisation appliance to produce or reach the required parameters of time at temperature and steam quality required to render an item sterile.

Thermal disinfector: a device designed by the manufacturer that achieves disinfection via the use of heat and water, to enable inactivation of non-spore forming organisms.

Validation: Documented procedure for obtaining, recording and interpreting the results required to establish that a process will consistently yield a product complying with pre-determined specifications.

Definitions used in this glossary have been aligned with definitions used in national and international documents including Australian Government Department of Health and Aging, 2004 *Infection control guidelines for the prevention of transmission of infectious diseases in the health care setting*, AS/NZS 4187:2003 *Cleaning, disinfecting and sterilizing reusable medical and surgical appliances and equipment, and maintenance of associated environments in health care facilities* and AS/NZ 4815:2006 *Office based health care facilities-Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment.*

REFERENCE LIST

ACHS *EQuIP Guide* June 1996.

ACT *Clinical Waste Act 1990.*

ACT *Clinical Waste Manual,* 1991.

ACT *Discrimination Act 1991.*

ACT *Health Infection control for office practices and other community based services Code of Practice 2005.*

ACT *Occupational Health and Safety Act 1989.*

ACT *Public Health Act 1997.*

ACT *Waste Minimisation Act 2001.*

Australian Standard, AS 1668.2:2002 *Mechanical ventilation for acceptable indoor air quality.*

Australian Standard, AS 1680.2.5:1997 *Interior lighting – Hospital and medical tasks.*

Australian Standard, AS 2182:1998 *Sterilisers - Steam - Portable.*

Australian Standard, AS 2487:1981 *Dry Heat Sterilisers (Hot Air Type).*

Australian Standard, AS 2773.1:1999 *Ultrasonic cleaners for healthcare facilities.*

Australian Standard, AS 2945:1998 *Batch type washer/disinfectors for health care facilities.*

Australian Standard, AS 4031:1992 *Non re-useable containers for the collection of sharp medical items used in health care areas.*

Australian/New Zealand Standard, AS/NZS 1337:1997 *Eye protectors for industrial applications.*

Australian/New Zealand Standard, AS/NZS 3816:1998 *Management of clinical and related waste.*

Australian/New Zealand Standard, AS/NZS 4146:2000 *Laundry practice.*

Australian/New Zealand Standard, AS 4187:2003 *Cleaning, disinfecting and sterilising reusable medical and surgical appliances and equipment, and maintenance of associated environments in health care facilities.*

Australian/New Zealand Standards, AS/NZS 4261:1994 *Re-useable containers for the collection of sharp medical items used in human and animal medical applications.*

Australian/New Zealand Standard, AS/NZS 4815:2006 *Office-based health care facilities-Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of associated environments.*

Australian Government Department of Health and Ageing (DoHA); 2004. *Infection Control Guidelines for the prevention of transmission of infectious diseases in the health care setting.*

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Therapeutic Goods Administration, *Therapeutic Goods Order Nos. 54, 54A & Guidelines - Standards for composition, packaging, labelling and performance of disinfectants and sterilants,* Commonwealth Department of Health and Family Services, 1997.

Worksafe Hazard Alert No 1 - 1991 *Gluteraldehyde – Use in the health and associated industries.*

APPENDICES

APPENDIX ONE

Categories of waste and recommended containment and disposal

Symbol	*Waste*	*Container Colour*	*Disposal*
No symbol	General	Black, buff, green, white	Landfill Consider recycling (Confidential waste to be shredded or incinerated)
	Clinical waste - sharps - non sharps - liquid	 Yellow, rigid container Yellow bag	Licensed contractor Incineration Incineration or validated steam sterilisation, then supervised landfill Sewer: local regulations must be followed
	Radioactive	Red	Licensed contractor Monitor before disposal by incineration or supervised landfill Dilute isotopes may be disposed of via sewerage system in accordance with relevant guidelines
	Cytotoxic	Purple	Licensed contractor Incineration: 1100°C

Note: Any waste, contaminated with or stored with another waste requiring a higher level of destruction MUST be classified at the higher level.

Source: DoHA (2004) *Infection control guidelines*

APPENDIX TWO

Minimum level of reprocessing required for specific items in use

Level of Risk	*Application*	*Process*	*Storage*	*Example*
Critical	Entry or penetration into sterile tissue, cavity or blood stream	Sterilisation by steam under pressure, or a minimum of an automated low temperature chemical sterilant system, other liquid chemical sterilant or ethylene oxide sterilisation	Sterility must be maintained: • packaged items should be dry when removed from the steriliser; • the integrity of the wrap must be maintained	Appliances used in [a]invasive surgical and dental procedures eg. oral surgical instruments, podiatry instruments capable of abrading the skin
[b]Semi-critical	Contact with intact nonsterile sterilisation is mucosa (or nonintact skin)	Heat tolerant items: Steam environmental preferred where possible	Store to protect from appliances contamination	Vaginal speculae, for routine dental procedures
		Heat sensitive items: Use high level chemical disinfection or low temperature automated chemical sterilant systems	Store to protect form environmental contamination	[c]Flexible endoscopes, invasive utrasound probes
Noncritical	Contact with intact skin	Clean as necessary with deterget and water If decontamination is required, clean, then disinfect with 70 per cent alcohol or other suitable disinfectant as required	Store in a clean dry place	Noninvasive acupuncture devices, Sphygmo-manometers, mercury thermometers noninvasive ultrasound probes

[a] An invasive procedure is defined as surgical entry into tissues, cavities, or organs, or repair of traumatic injuries. Invasive dental procedures include subgingival curettage and most root canal procedures.

[b] These items enter sterile sites and should therefore be sterile. However, in practice they are made from materials that do not withstand steam sterilisation. If a low-temperature chemical sterilisation system is available it should be used for these items; otherwise they should be high-level chemically disinfected.

[c] These categories reflect current practice – sterilisation is preferred where possible. Processing standards should evolve to accommodate changes in equipment design and emerging sterilisation technologies

Note: To preserve the surfaces and composition of the appliances, separate dissimilar metals before cleaning. Avoid use of abrasive materials. Do not store appliances in disinfectant before or after any form of processing.

Adapted from: DoHA (2004) *Infection control guidelines*

APPENDIX THREE

Handwashing techniques

Type	*Technique*	*Duration*	*Drying*	*Example (When)*
Routine hand wash	Wet hands thoroughly and lather vigorously using neutral pH liquid soap Rinse under running water	10-15 seconds	Pat dry using paper towel, or a fresh clean cloth towel	• Before eating • After using the bathroom • Before significant contact with patients e.g. physical examination, emptying a drainage reservoir • Before injection or venipuncture • Before and after routine use of gloves • After handling any instruments or equipment soiled with blood or body substances • Routine dental examinations
Hand wash prior to aseptic proced-ures (non-surgical)	Wash hands thoroughly using an anti-microbial skin cleaner Rinse carefully Do not touch taps with clean hands – if elbow or foot controls are not available, use paper towel to turn taps off	1 minute	Pat dry using paper towel	• Before any non surgical procedures which require aseptic technique • Before any invasive dental procedure (Invasive dental procedures include subgingival curettage and most root canal procedures)
Surgical wash	Wash hands, nails and forearms thoroughly and apply an anti-microbial skin cleaner (containing 4 % w/v chlorhexidine) or detergent based povidone iodine containing 0.75% available iodine or an aqueous povidone-iodine solution containing 1% available iodine. Rinse carefully, keeping hands above the elbows No touch techniques apply	First wash for the day 5 minutes; subsequent washes 3 minutes	Dry with sterile towels	• Before any invasive surgical procedure (operating room procedures) • Before oral surgical procedures (involves an incision into the musosa and raising of the muco-periosteal flap)

Source: DoHA (2004) *Infection control guidelines*