



**National Code of Practice for the Control
of Work-related Exposure to Hepatitis
and HIV (Blood-borne) Viruses
[NOHSC:2010(2003)]**

2nd Edition

December 2003

National codes of practice declared by NOHSC under s.38 (1) of the *National Occupational Health and Safety Commission Act 1985* (Cwlth) are documents prepared for the purpose of advising employers and workers of acceptable preventive action for averting occupational deaths, injuries and diseases in relation to workplace hazards.

The expectation of the Australian Government and NOHSC is that national codes of practice will be suitable for adoption by Commonwealth, State and Territory governments. Such action will increase uniformity in the regulation of occupational health and safety throughout Australia and contribute to the enhanced efficiency of the Australian economy.

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of Work-related Exposure to Hepatitis
and HIV (Blood-borne) Viruses
[NOHSC:2010(2003)]**

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FOREWORD

In seeking to achieve Australian workplaces free from injury and disease, NOHSC works to lead and coordinate national efforts to prevent workplace death, injury and disease. We seek to achieve our mission through the quality and relevance of information we provide and to influence the activities of all parties with roles in improving Australia's occupational health and safety (OHS) performance.

In seeking to improve Australia's OHS performance, NOHSC works to:

- support and add value to efforts in the jurisdictions to tailor approaches to prevention improvement;
- facilitate, through strategic alliances, the development and implementation of better approaches to achieving improved prevention outcomes; and
- integrate the needs of small business into its work.

On 24 May 2002, the Workplace Relations Ministers' Council endorsed the release of the NOHSC *National OHS Strategy 2002-2012*. The Strategy was developed by the members of NOHSC and reflects their agreement to share responsibility for continuously improving Australia's performance in work related health and safety.

There are five initial national priority areas for action to achieve short-term and long-term improvements. The priorities are:

- reduce high incidence/severity risks;
- improve the capacity of business operators and workers to manage OHS effectively;
- prevent occupational disease more effectively;
- eliminate hazards at the design stage; and
- strengthen the capacity of government to influence OHS outcomes.

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PREFACE

Guidance to employers and workers regarding the minimisation of risks arising from work-related exposure to Hepatitis B virus and HIV has been provided since 1993 through the National Occupational Health and Safety Commission (NOHSC) *National Code of Practice for Health Care Workers and Other People at Risk of the Transmission of Human Immunodeficiency Virus and Hepatitis B in the Workplace* [NOHSC: 2010 (1993)] (1993 NOHSC Code).

The 1993 NOHSC Code is now out of date, having been superseded by more relevant and up-to-date material currently published by the public health sector and some State and Territory occupational health and safety authorities. At its 63rd meeting on 16 October 2002, NOHSC, as part of the Council of Australian Government (COAG)¹ review process, agreed to rescind the 1993 NOHSC Code and, subject to any necessary modification, adopt the September 2001, *Western Australia Code of Practice on the Management of HIV/AIDS and Hepatitis at Workplaces* (the WA Code)² as a replacement.

The National Occupational Health and Safety Commission agreed to declare the *National Code of Practice for the Prevention of Work-related Exposure to Hepatitis and HIV (Blood-borne) Viruses* [NOHSC:2010 (2003)] on 15 October 2003.

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- 1 Council of Australian Governments (COAG), *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Council and Standard-Setting Bodies*, November 1997, <http://www.dpmc.gov.au/pdfs/coagpg.pdf>
 - 2 The WA Code is regarded as best practice in Australia and has significant international recognition through reference in the International Labour Organisation's, *Code of Practice on HIV/AIDS and the World of Work*, ILO June 2001.

TITLE (CITATION)

This national code of practice may be cited as the *National Code of Practice for the Control of Work-related Exposure to Hepatitis and HIV (Blood-borne) Viruses* [NOHSC:2010(2003)] 2nd Edition.

PURPOSE

The purpose of this code is to continue the intent of the 1993 NOHSC Code, which is to minimise the risk of infection resulting from work-related exposure to Hepatitis B virus (HBV), Hepatitis C virus (HCV) and Human Immunodeficiency Virus (HIV). The code formally replaces the *National Code of Practice for Health Care Workers and Other People at Risk of the Transmission of Human Immunodeficiency Virus and Hepatitis B in the Workplace* [NOHSC: 2010(1993)], and ensures consistency and correlation with Health Agency publications and advice.

SCOPE AND APPLICATION

This code provides practical guidance for the management of exposure to HBV, HCV and HIV in the workplace. The code is designed to be applicable to all workplaces, rather than focusing on the specific requirements of workers in health care settings. The management of exposure of health care workers to Hepatitis B virus (HBV), Hepatitis C virus (HCV) and HIV is addressed by a recently released comprehensive document covering exposure to all infectious diseases in the health care setting³.

This code is intended chiefly for use by primary duty holders – that is, employers, self-employed and other controllers of workplaces who owe a duty of care to workers. It aims to provide guidance to duty holders regarding their approaches to minimising the risk of infection from HBV, HCV and HIV as a result of work-related exposures.

In Australia laws about occupational health and safety (OHS) are the responsibility of State and Territory governments and thus may differ around the country. Australian Government employees are covered by Commonwealth OHS legislation. Employers and managers must comply with relevant Commonwealth, State or Territory law. Therefore, to ensure compliance, this code of practice should be used in conjunction with information provided by the relevant Commonwealth, State or Territory OHS authority.

3 Communicable Diseases Network of Australia. *Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting (draft)*. 2003.

1. INTRODUCTION: HEPATITIS VIRUSES AND HIV

1.1 Introduction

There is the potential, within a variety of workplaces, for persons to be exposed to blood-borne viruses. Hepatitis viruses (including Hepatitis B and Hepatitis C) and HIV are among the more common blood-borne viruses that may be encountered in the workplace. Exposure to these viruses can be prevented and managed by following the principles of a three-step risk management process:

1. Hazard identification;
2. Risk assessment
3. Risk control.

This process is consecutively outlined in Sections 2, 3 and 4 of this code of practice.

Employers are required to notify the relevant State or Territory occupational health and safety agency if an employee suffers an injury or contracts an illness/disease (including viral Hepatitis and HIV) in the course of their work. Employers should consult the relevant occupational health and safety authority regarding their obligations to notify.

1.2 Hepatitis viruses

Hepatitis is a disease of the liver that is commonly caused by a virus. The common causes of viral Hepatitis are Hepatitis B virus (HBV), which causes Hepatitis B and Hepatitis C virus (HCV), which causes Hepatitis C.

Symptoms of Hepatitis may include abdominal discomfort, nausea, loss of appetite, tiredness, fever, jaundice and dark urine. Blood tests are used to determine the cause of the Hepatitis and, if applicable, the type of virus causing infection.

1.2.1 Hepatitis B virus

HBV can be found in blood and body fluids/substances such as semen. It can be passed from one person to another by infected blood or body fluids/substances entering the body. This may occur:

- by injection or injury with contaminated injecting equipment (e.g. needlestick injury or intravenous drug use) or other sharp objects;
- by sexual contact (mainly Hepatitis B Virus);
- by transfusion with infected blood or blood products or the transplantation of infected material (although this should no longer occur in Australia);
- by indirect transfer of infected blood through shared razors, toothbrushes and other personal items;
- through mucosal contact (e.g. splashes of body substances to the mouth, nose, eyes or non-intact skin); or
- during pregnancy, childbirth and breastfeeding from the mother to child.

HBV can survive in blood and body fluids/substances outside the body. HBV is not usually transmitted by casual contact between persons. A vaccine is available to prevent against HBV infection.

People who use contaminated injecting drug equipment have a greatly increased risk of infection with HBV. Occupational infection occurs mainly from transmission via contaminated needles and other sharp objects in the workplace, or from mucosal contact (e.g. splashes of body substances to the mouth, nose, eyes or non-intact skin).

The majority of adults who are infected with HBV do not suffer a serious illness and may not develop jaundice. If an obvious illness does develop the severity can vary. Some of those who are infected with HBV never recover from the infection and become long-term carriers of the disease (5 – 10 per cent). Some carriers are capable of transmitting the disease to others, but infectiousness varies between people, and for the same person at different times. The risk of becoming a carrier is highest in those who are infected at birth from their infected mother. Long-term carriers face a risk of liver cirrhosis (10 – 20 per cent) and primary liver cancer (1 – 5 per cent). It is estimated that approximately 0.5 per cent (90,000) of the Australian population has chronic (long term) Hepatitis B, although the carrier rate is higher in some sub-populations.

1.2.2 Hepatitis C virus

It is estimated that 210,000 people in Australia have the Hepatitis C virus. HCV is transmitted via blood-to-blood contact; the highest risk being when equipment used to inject drugs is shared. Moderate to low risk modes of transmission include tattooing and body piercing with contaminated equipment, needle stick injuries, blood product transfusions in Australia prior to 1990 and transmission from mother to baby.

Although HCV is not classified as a sexually transmitted infection, it is possible for transmission in the sexual context to occur if blood is shared, although this is thought to be rare. There is currently no vaccine available that protects against the acquisition of HCV.

In the initial stages of infection there are often no signs or symptoms of disease. Around 75 per cent of persons with HCV infections will develop a chronic (long-term) Hepatitis C infection. Most people with chronic Hepatitis C will develop some symptoms, ranging from mild to severe, after approximately 10 to 15 years. Symptoms most often present as fatigue, nausea, muscle aches and pains, abdominal pain and loss of appetite.

Occupational infection of HCV may occur through injury from contaminated sharps or, more rarely, through mucosal (i.e. eyes, nose and mouth) contact with blood.

1.2.3 Other Hepatitis viruses

This code does not deal specifically with other Hepatitis viruses. Hepatitis A (and the less common Hepatitis E) has a different mode of spread and many different applicable control measures to those of the other viruses covered by the code. Hepatitis D and G are less common than, but probably spread through similar means to, HBV and HCV, and are likely to be controlled by the measures suggested in this code for HBV and HCV. Further information on Hepatitis can be obtained from the relevant State or Territory health department.

1.3 Human Immunodeficiency Virus (HIV)

The Human Immunodeficiency Virus (HIV) can damage the body's immune system so that it is unable to fight off infection. This is the cause of Acquired Immune Deficiency Syndrome (AIDS). An important feature of HIV infection is that there is usually a long period after initial infection during which the person has few or no symptoms of the disease.

HIV usually progresses through several stages:

- In the initial weeks of infection, the person may experience symptoms similar to those of glandular fever. Antibodies to the virus are usually formed at this time (three to twelve weeks after infection occurs).
- Following the initial infection, there is a long period during which the person has few or no symptoms, but HIV is detectable through the presence of antibodies in the blood. This period usually lasts from three to eight years after the initial infection.
- As the virus begins to destroy the immune system, symptoms such as weight loss, fever, diarrhoea and lymph gland enlargement may commence. This usually progresses to the full AIDS, which develops when the immune system is severely damaged. The person may become terminally ill with infections, cancers or neurological disorders.

HIV is not as infectious as Hepatitis B (HBV) or Hepatitis C (HCV) but is spread by similar means (see Section 1.2.2). Infection with HIV can occur through the transfer of infected human blood or other body fluids/substances during anal or vaginal sexual intercourse, sharps injury (including needlesticks) and needle sharing related to drug use. It may also be transmitted from an infected mother to a baby during pregnancy, childbirth or breastfeeding.

HIV is usually not transmitted through non-sexual, person-to-person contact. However, the virus can be transferred where infected materials such as blood or other body fluids/substances come into direct contact with broken skin or the mucous membranes of the eyes, nose or mouth. Sharing toothbrushes and razors probably increases the risk of transmission.

Occupational infection occurs mainly from transmission via contaminated needles and other sharp objects, or from mucosal contact (e.g. splashes of body substances to the mouth, nose, eyes or non-intact skin).

Although HIV can survive in body fluids/substances outside the body, it is much more fragile than the Hepatitis viruses and cannot survive for long outside the body. There is currently no vaccine available that protects against the acquisition of HIV.

There is no evidence that HIV is transmitted by:

- insects;
- food, water or shared eating or drinking utensils;
- sneezing, coughing, sweat, tears, shared clothing or telephone hand sets;
or
- toilets, urinals or swimming pools.

2. HAZARD IDENTIFICATION

2.1 Introduction

Hazard identification is the first step in an overall risk management approach, involving the development of safe systems of work to manage any significant hazard. Risk management is primarily the employer's responsibility and should be conducted in consultation with workers (including part-time, casual, agency and contract workers, and volunteers) and/or their representatives.

Hazard identification should identify activities in the workplace that may put workers or members of the public at risk of transmission of HBV, HCV or HIV as a result of work activities. Once a hazard is identified, a risk assessment can be carried out to assist the determination of control measures.

The two stages in hazard identification are:

- identifying potential sources of infection; and
- identifying activities and occupations where hazards exist, and potential means of transmission, e.g. during first aid, when cleaning toilets, during exposure-prone procedures in the health care industry.

2.2 Sources of infection of HBV, HCV and HIV

Sources of infection can include:

- blood and body fluids/substances from persons who are infected with the viruses; or
- material contaminated or likely to be contaminated with infected blood or blood products or other body fluids/substances, such as sanitary waste, soiled linen, used needles and other sharps.

2.3 Activities and occupations where a hazard may exist

Activities and occupations where a hazard may exist should be identified through:

- consultation with workers to determine activities likely to result in the transmission of HBV, HCV and HIV;
- consideration of transmission modes of HBV, HCV and HIV in the working environment. Transmission may occur when:
 - contaminated sharps penetrate the skin, or
 - infected blood or other body fluids/substances splash into the eye or onto other mucous membranes, or broken skin;
- analysis of available reports of HBV, HCV and HIV exposures; and
- workplace audits that include:
 - workplace layout,
 - work practices,
 - sources of exposure to blood and body fluids/substances, and
 - those occupations involving potential exposure to HBV, HCV and HIV.

Whilst most potential work-related exposures are still unlikely to result in transmission, any occupation that involves potential exposure to HBV, HCV and HIV must be included in any risk assessment. Exposure to used syringes and needles and other contaminated materials is an important problem in sectors other than health. Such exposures can occur in many public and private places, such as schools, public transport, hotels, bars, restaurants, offices, and public parks, gardens, playing areas, crash sites and biohazard areas. Therefore, a wide range of occupations and exposure circumstances require a specific risk assessment. These include⁴:

- accommodation venues (e.g. hotels, motels and caravan parks)
- auto repair, service and retail employees
- bar service staff
- care workers for people with disabilities, children, the aged, and others who have to self-inject for health reasons (i.e. diabetics)
- cleaning staff
- correctional centre (i.e. adult prisons and juvenile justice centres) workers
- council workers
- dentists, dental assistants and dental therapists
- detention workers
- emergency care worker such as members of the police, fire brigade, ambulance and other related services, including lifesavers and SES
- entertainment industries (eg cinemas)
- fast food (retail) workers
- first aid providers
- garbage collectors
- hospital cleaning / disinfection / sterilisation staff
- investigative personnel such as insurance and aviation crash site investigators involved in the examination of crash sites and wreckage
- laundry staff
- lift maintenance staff
- maintenance plumbers
- medical and forensic laboratory technicians
- medical practitioners
- maritime workers
- nursing staff
- operating theatre staff, including surgeons and anaesthetists
- parks and gardens employees, including National Parks and Wildlife Service workers

4 For completeness, this list includes health sector workers in addition to non-health sector workers. However, health sector workers are not the focus of this Code, and Section 4.4, which considers risk control strategies for certain occupations, does not include health sector workers.

- pathology laboratory employees
- people performing acupuncture, tattooing, body piercing and beauty therapy
- people who officiate or work in contact sports
- podiatrists
- post-mortem technicians, other mortuary staff and funeral services
- postal workers
- providers of sexual services
- public transport workers (such as rail, tram and bus drivers)
- recycling industry
- restaurant staff
- sanitation workers
- security workers
- taxi drivers
- teachers of all levels
- workers travelling to certain overseas countries.

Employers of persons in any of these occupations should recognise that inadvertent exposure is a risk and employees should be made aware of the exposure risks and preventive procedures.

3. RISK ASSESSMENT

Risk assessment follows hazard identification. The purpose of risk assessment is to evaluate the risks to workers arising from exposure to blood, and body fluids/substances or contaminated materials, as a result of work activities and the working environment.

Risk assessment should take into account:

- the type and frequency of exposure to blood or body fluids/substances, or to contaminated materials, including:
 - the probability of exposure,
 - the amount of blood or body fluids/substances,
 - the type of body fluid/substance encountered,
 - the possible routes of transmission, and
 - consideration of multiple exposures; including multiple sources.
- the volume and frequency of contact with discarded used needles and syringes.
- the factors contributing to exposures and their recurrence.
- the risks of exposure to blood or body fluids/substances or contaminated materials, associated with workplace layout, design and work practices including:
 - poor lighting;
 - flat surfaces that encourage drug preparation;
 - crevices that encourage concealment of used needles and syringes.
- access to relevant medical and first aid services.
- the level of knowledge and training of employees regarding HBV, HCV and HIV, including safe work practices.
- the availability and use of personal protective equipment (PPE), including rubber gloves, eye goggles and face shields.
- the suitability of equipment for the task and whether or not the use of the equipment is likely to lead to exposures to blood or other body fluids/substances, or contaminated materials.
- individual risk factors for each worker, such as damaged/broken skin, dermatitis and eczema.
- the number of workers and other persons at risk of exposure.
- the availability of vaccines (e.g. HBV vaccine) and post exposure prophylaxis (PEP).
- current risk control measures and the potential need for new risk control measures.

4. RISK CONTROL

Upon completion of a risk assessment, consideration must be given to controlling the risk/s. The three **main** steps in risk control:

- the development and implementation of control policies and procedures, in consultation with all affected workers
- monitoring the effectiveness of control strategies
- reviewing as necessary.

Practical prevention and control strategies appropriate to the workplace should include:

- safe work procedures, incorporating standard and additional transmission based precautions where appropriate
- personal hygiene
- an infection control program incorporating standard precautions;
- post-injury testing, counselling and follow-up
- an immunisation program
- supervision, particularly of new employees or employees transferred to a higher risk work environment
- training workers in the risk control measures
- well-designed equipment
- well-designed work premises.

Where reasonably practicable, all work activities should be designed to minimise the likelihood of exposure and of harm arising from exposure. This includes ensuring:

- work practices are designed to minimise exposure to blood or other body fluids/substances and contaminated materials, through the implementation of standard precautions and other strategies
- the isolation of processes to reduce the number of people exposed, e.g. when handling blood products in the laboratory and biological waste disposal systems
- relevant processes are totally enclosed, e.g. by using a biological safety cabinet
- availability and use of appropriate personal protective equipment (PPE)
- equipment that is purchased minimises the risk of exposures
- good house-keeping
- appropriate waste management, including sharps handling and disposal
- offer of vaccination (where applicable) to all at-risk employees
- supervision and monitoring
- workers are appropriately educated and trained.

Procedures should be developed for each component of the infection prevention and control strategy, including:

- safe working practices
- purchasing policies
- interacting with members of the public or clients
- the non-discriminatory management of situations where the worker is known to be infected with of HBV, HCV and HIV (See Appendix A).

In addition, all workplaces should provide access to a first aid kit. Information on the content requirements of first aid kits can be obtained from State/Territory OHS authorities.

It is essential that staff and clients confidentiality be protected in all matters, including their Hepatitis and HIV status. Many jurisdictions have legislation specific to the confidentiality of HBV, HCV and HIV status or potential status, as well as relevant general privacy provisions.

4.1 Sharps

The principal risk of occupational exposure to infection of HBV, HCV and HIV for most workers is from sharps injuries. In many non-health sectors, workers can be expected to be exposed to used needles and syringes and other sharps. In such circumstances, sharps should only be handled with appropriately designed tongs (or similar equipment). In the absence of such equipment, workers should not attempt to improvise (e.g. use a stick). Rather, it is safer to dispose of the sharp by holding the barrel of the syringe with a gloved hand. The sharp should be placed in a sealable rigid-walled, puncture-resistant container⁵, and the local council or health service should be contacted for collection/disposal information. If no such guidelines exist, small quantities of sharps may be able to be disposed of at a sharps return centre such as a needle and syringe exchange program. For larger quantities, arrangements should be made with a waste disposal provider.

Where practicable, sharps bins/containers should be installed in public toilets and similar places to reduce the number of inappropriately discarded sharps. Sharps bins/containers installed in public areas should be maintained for cleanliness and security, and should not be placed in areas easily accessible by children (e.g. near items that can be used as a step such as a toilet seat). Sharps bins should also be replaced/emptied regularly and their presence adequately signposted. Further information regarding the placement of sharps disposal bins in public areas may be provided by local councils or government agencies.

5 Appropriate container design is specified in:
Australian Standards AS/NZS 4031 (1992) *Non-reusable containers for the collection of sharp medical items used in health care areas*; and
AS/NZS 4261 (1994) *Reusable containers for the collection of sharp items used in human and animal medical applications*.

The following principles should also apply to the use and handling of sharps:

- Sharps containers should be positioned at the point of use.
- The person generating the sharp should be responsible for its safe disposal.
- Sharps should not be passed by hand between workers.
- Disposable sharps should be used where possible.
- Reprocessing of reusable sharp instruments should minimise exposure (eg by using automated mechanical cleaning processes).

Where there is a risk of sharps injury, written protocols for safe handling of sharps should be provided, and workers should be fully trained in the recommended handling techniques. Workers should also be instructed not to:

- bend, break, recap or otherwise manipulate needles
- place their hands into areas where their hands or fingers are not clearly visible (e.g. into garbage bags and crevices)
- manually compress garbage bags
- hold garbage bags close to their body
- hold garbage bags by the base of the bag.

For other information on the storage, transport and disposal of sharps, see Appendix B.

Further information for managing sharps exposure incidents is provided at Appendix C.

Further information for managing the collection and disposal of discarded sharps is provided at Appendix D.

The risk of infection from needlestick and sharps injuries is generally low and varies depending on the virus⁶.

4.1.1 Hepatitis B virus

The risk of an unvaccinated person contracting HBV from a single needlestick or sharps injury ranges from approximately 6 – 30 per cent, depending upon the Hepatitis B e antigen status of the source individual. Individuals who have received a Hepatitis B vaccine and developed immunity to the virus have a negligible risk of infection of HBV.

4.1.2 Hepatitis C virus

⁶ See: Centres for Disease Control. *Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis*. MMWR 2001 (June 29) 50(RR11);1-42.

The risk of contracting HCV from a needlestick or sharps injury exposure to HCV infected blood is approximately 1.8 per cent. The risk of contracting HCV from a splash exposure is not known but is expected to be very low.

4.1.3 Human Immunodeficiency Virus (HIV)

The risk of contracting HIV from a needlestick or sharps injury exposure to HIV infected blood is approximately 0.3 per cent (or 1 in 333). Expressed otherwise, 99.7 per cent of needlestick or sharps injury exposures to HIV infected blood do not lead to infection.

The risk of infection from HIV after exposure of the mucous membranes of the eyes, nose or mouth to HIV infected blood is approximately 0.1 per cent (or 1 in 1000). The risk of infection after exposure of intact skin is below 0.1 per cent. However the risk may increase where broken/damaged skin is present, large areas of skin have been exposed or prolonged exposure has occurred.

4.2 Safe working procedures

Standard precautions are work practices required for the basic level of infection prevention and (exposure) control. Standard precautions apply to the handling of blood and other body fluids/substances, regardless of whether they contain visible blood. The principles of standard precautions should be used to develop safe working procedures appropriate to the work and the workplace. Standard and additional transmission-based precautions are designed primarily to protect health care workers and health care consumers from infection, but many other workers and clients are at risk of exposure to blood or other body fluids/substances, or contaminated materials. Standard precautions are described in detail in Appendix E.

Regardless of the source, any material soiled with blood or body fluids/substances should be treated as being potentially infectious and safe working procedures must be adopted. For example, plumbers carrying out maintenance on sewers or waste pipes, and hotel cleaners dealing with sheets and towels stained with blood or other body fluids/substances, should treat the material as potentially infectious.

Workers must be educated, trained and supervised to ensure the adopted safe working procedures are implemented and followed. Training needs, relevant to safe working procedures, should be assessed in consultation with workers and their representatives.

Guidance for dealing with HBV, HCV or HIV positive employees is provided at Appendix F.

4.3 Standard precautions

Hand washing facilities should include running water, soap and single-use towels, preferably paper. Where running water is unavailable (i.e. in some field situations) alternative hand cleaning methods, such as alcohol-based hand rubs, should be made available.

A high standard of personal hygiene is essential and the practical applications listed below apply to all contacts between workers and other persons.

- Hands must be washed after contact with blood and body fluids/substances and before eating, drinking or smoking.
- A mild liquid handwash (with no added substances that may cause irritation or dryness) should be used for routine hand washing.
- To minimise chapping of hands, use warm water and pat hands dry rather than rubbing them.
- Liquid handwash dispensers with disposable cartridges, including a disposable dispensing nozzle, are preferable to refillable containers, which may predispose to bacterial colonization.
- Repeated hand washing and wearing of gloves can cause irritation or sensitivity, leading to dermatitis or allergic reactions. This can be minimised by early intervention, including assessment of hand-washing technique and the use of suitable individual-use hand creams.
- Aqueous-based hand creams should be used before wearing gloves. Oil-based preparations should be avoided as these may cause latex gloves to deteriorate.
- Water impermeable gloves must be readily available to all workers and worn when likely to be exposed to blood or other body fluids/substances, or contaminated materials. The wearing of gloves substantially reduces the risk of hands being contaminated with blood or other body fluids/substance.
- Hands must be washed and dried immediately after removing gloves (gloves cannot be guaranteed to prevent skin contamination and may not remain intact during use).
- Gloves should be removed and replaced (if needed) once the specific task is finished.
- Waterproof aprons or gowns should be worn when clothing may be contaminated with blood or other body fluids/substances.
- Surgical masks and/or protective eyewear should be worn where eyes and/or mucous membranes may be exposed to splashed or sprayed blood or other body fluids/substances.
- Cuts or abrasions on any part of a worker's body must be covered with waterproof dressings at all times.

4.3.1 Cleaning, disinfection and sterilisation of equipment

Regardless of the setting, cleaning of equipment and other items that are, or are likely to be, contaminated with blood or other body fluids/substances should initially be done with detergent and warm water. Where automated, mechanised cleaning processes are not available, washing of instruments may be undertaken by hand. When washing instruments by hand, care should be taken to avoid handling sharp edges or points. A scrubbing brush may be suitable to prevent

close contact of the hand and fingers with sharp edges or points of instruments. Gloves should be worn during cleaning. Items should be washed to remove all visible contaminants and items should be washed as soon as possible following contamination to prevent contaminants drying. Care should be taken during cleaning to avoid splashing (i.e. immersing the entire instrument in the water). Eye protection and surgical masks should be worn. All cleaned items should be thoroughly dried prior to storage.

More specific approaches, such as disinfection and sterilisation, may be required in industries including the health sector, hairdressing, beauty therapy, funeral homes, tattooing and body piercing, but cleaning must always precede disinfection or sterilisation. More detailed information regarding disinfection and sterilisation procedures is available elsewhere⁷.

The use of some disinfectants, cleaning and sterilising agents can present risks. Labels and material safety data sheets provide information on safe use for those disinfectants classified as 'hazardous substances' and should be followed.

4.3.2 Spills

Spilled blood and body fluids/substances may be encountered in many work settings. These spills should be attended to immediately. The basic principles of spills management are:

- standard precautions apply, including use of personal protective equipment (PPE) as applicable
- spills should be cleared up before the area is cleaned (adding cleaning liquids to spills increases the size of the spill and should be avoided)
- generation of aerosols from spilled material should be avoided.

Procedures for managing blood and other body fluid/substance spills are dependent on the nature and size of the spill, as well as the location. They include:

- Protective clothing (See Section 4.3.5 for further information on personal protective equipment (PPE)
 - Workers involved in cleaning must wear protective clothing including disposable gloves. If a spillage covers a large area, a waterproof apron (or gown) and overshoes will also be needed to prevent contamination of clothing.
- Cleaning

⁷ See:
Communicable Diseases Network of Australia. *Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting (draft)*. 2003;
Australian Standard AS 4187 (1998) *Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities*; and
AS/NZS 4815 (2001) *Office-based health care facilities not involved in complex patient procedures and processes — Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment and maintenance of the associated environment*.

- Confine and contain the spill.
- Cover the spill with paper towels or absorbent granules, depending on the size of the spill, to absorb the bulk of the blood or body fluid/substance.
- Treat debris as clinical waste where required (see Appendix B).
- Contaminated areas should be cleaned thoroughly with warm water and neutral detergent. If the spill is on carpet, clean with a neutral detergent and arrange for the carpet to be shampooed with an industrial cleaner as soon as possible.
- Disposal
 - Cloths and paper towels used in clean up should be placed directly into a plastic bag and disposed of in a bin designated for contaminated waste.
 - Contact the relevant agency to determine a classification for materials used to clean the spill and any further action required (see Appendix B).

Spots or drops of blood or other small spills can easily be managed by wiping the area immediately with paper towelling and then cleaning with warm water and detergent. Large spills (i.e. greater than 10cm diameter) should be contained and generation of aerosols should be avoided. A standard disinfectant can be used on the spill area after pre-cleaning. It is generally unnecessary to use sodium hypochlorite (chlorine bleach) for managing spills but it may be used in specific circumstances (e.g. where there is a likelihood of bare skin contact with the contaminated surface).

Standard cleaning equipment, including a mop and cleaning bucket plus cleaning agents, should be readily available for spills management and should be stored in an area known to all workers. Granular formulations that produce high available chlorine concentrations can contain the spilled material and are useful for preventing aerosols. A scraper and pan should be used to remove the absorbed material. The area of the spill should then be cleaned with a mop and bucket of warm water and detergent. All re-useable cleaning equipment should be thoroughly cleaned after use and stored dry.

For larger spills and spills in field situations, it may be advisable to have a spills kit prepared. This could be in the form of a large (10 Litre) re-usable plastic container or bucket with fitted lid, containing materials such as:

- impermeable plastic waste disposal bags
- granular disinfectant sachets containing 10,000 ppm available chlorine or equivalent
- disposable impermeable rubber gloves suitable for cleaning
- eye protection
- plastic apron
- a disposable, sturdy scraper and pan
- a full face surgical mask

- a respiratory protection device (for protection against inhalation of powder from the disinfectant granules, or aerosols which may be generated from high-risk spills during the cleaning process).

With all spills management protocols, it is essential that the affected area is left clean and dry. Disposable items in the spills kit should be replaced after each use of the kit.

4.3.3 Laundry

The risk of disease transmission from soiled linen is very small, especially outside a health care setting. However, accommodation providers, commercial linen services and other relevant workplaces should have documented policies and procedures for the collection, transport and storage of all linen. These should cover:

- distribution of clean linen
- bagging of used linen for collection
- storage and transport of used linen
- checking for sharps in used linen
- laundering of used linen.

Standard precautions should be followed when handling linen. The basic principles of linen management are as follows⁸:

- All used linen should be considered potentially infectious whether visibly contaminated or not.
- All linen visibly contaminated and wet with blood or other body fluids/substances must be placed in an appropriate impermeable bag. Used linen, not visibly contaminated or wet, may be placed in a standard linen bag.
- Linen should be placed in appropriate bags at the point of generation.
- Clean and contaminated linen should be sorted, transported and stored separately. Colour-coded bags may be used for sorting.
- Linen bags should only be three-quarters filled and should be secured prior to transport.
- Leather or puncture-resistant gloves should be worn when handling visibly contaminated linen in case of sharps. Other used linen should be handled while wearing standard impermeable gloves as outlined in Section 4.3.5.
- Sharps containers should be available for disposal of any sharps found in the linen.

A hot water and detergent solution is adequate for cleaning most laundry items⁹ and equipment.

8 See AS/NZS 4146 (2000) *Laundry practice*.

9 Information regarding disinfection of contaminated clothing/linen is detailed in Section 3.5 of AS/NZS 4146 (2000) *Laundry practice*.

4.3.4 Waste management

Non health care establishments are unlikely to generate significant quantities of clinical or related waste, but relevant workplaces should develop and implement procedures to ensure blood, other body fluids/substances and other potentially infectious material is disposed of safely. Procedures should cover:

- the initial segregation and disposal of waste in the area where waste is generated
- collection, transport and storage of waste at the workplace
- transport of waste for final disposal
- disposal of waste in accordance with State or Territory Health Department, Environmental Protection Authority (EPA) and local council requirement
- actions to follow in the event of a spill or other contamination during collection, transport, storage or disposal of waste.

For other information on the storage, transport and disposal of waste, see Appendix B.

4.3.5 Personal Protective Equipment (PPE)

Workers should be provided with equipment to protect themselves from exposure to blood or other body fluids/substances. Adequate supplies of personal protective equipment should be available for the use of all workers. Enclosed, sturdy footwear should be worn where there is a risk of standing on discarded sharps.

The following personal protective equipment must be available, as determined by the risk assessment:

- non-porous waterproof dressings for workers with chapped or broken skin
- water-impermeable gloves in a range of sizes and types, such as:
 - sterile and non-sterile gloves
 - powder-free latex or vinyl gloves
 - neoprene or nitrile gloves for those with latex allergies
 - waterproof leather and other puncture resistant gloves
 - the use of polythene or similar gloves (i.e. standard food handling gloves) is not recommended for blood contact as these gloves are generally permeable and damage easily.
- masks with filters for mouth-to-mouth resuscitation
- eye protection (i.e. goggles) and/or face shields
- plastic aprons
- waterproof gowns
- fluid resistant surgical masks
- overalls
- over boots.

Gloves should be worn whenever workers may come into contact with blood and other body fluids/substances or when handling contaminated materials. When selecting gloves, consideration should be given to personal protection from other hazards at the workplace (e.g. liquid chemicals). Nitrile gloves should be used for cleaning involving chemical exposure. Gloves should always be used in accordance with the recommendations of the manufacturer.

Education/instructions about the correct and appropriate use of personal protective clothing and equipment should be provided.

4.4 Risk control strategies for certain occupations

Employers of workers in occupations known to be at risk of infection should take precautions to prevent and control the risk of infection. The same requirements exist for self-employed persons in these occupations and other controllers of workplaces with workers in these occupations. The fundamental principle for all occupations and tasks is that all persons and all body fluids/substances should be treated as infectious. (The need for vaccination in certain occupation groups is considered in Section 4.7) The occupations include, but are not limited to:

- Acupuncture, tattooing, body piercing, hair removal by electrolysis and lasers.

People in this group have minimal risk from contact with the blood of clients when standard precautions are followed.

- Auto service/repair, service and retail workers, care workers, cleaners, fast food (retail) workers, hospitality workers, postal workers, public transport workers, teachers, parks/beach and gardens workers, plumbers.

People in these groups can come into contact with used syringes and needles in the course of their work, either in the workplace or in the vicinity of where they work. They should be trained to be aware of the potential for contact with used syringes and needles, to understand how to undertake the high-risk tasks as safely as practicable and how to deal with any used syringe or needle that is found. Areas/tasks of particular concern include under and between the seats of vehicles, chairs and sofas, in toilets and bathrooms, in hotel rooms, in gardens, parks and playing areas; and in spaces with poor visibility or lighting and where the hand is not clearly visible.

- Body contact sports

People who officiate or work in contact sports should follow the recommendations outlined in the Sports Medicine Australia (SMA) Policy, Infectious diseases.¹⁰

- Crash site and wreckage investigators

Standard precautions should be used when people in this group are exposed to blood and body fluids/substances, or contaminated material. Investigators should avoid direct contact with any potentially infected material i.e. wreckage, soil etc. and/or blood and body fluids/substances. Until properly protected, investigators should avoid any investigative procedure on potentially infected material and/or

10 See SMA. *Sports Medicine Australia Policy. Infectious diseases: with particular reference to HIV (AIDS) and viral Hepatitis (B, C, etc).* (1997).

blood and body fluids/substances that might tend to splash, spray, generate droplets or otherwise disperse contaminated particulate matter. They should be trained to be aware of the potential for contact with infected materials and/or blood and body fluids/substances, to understand how to undertake the high-risk tasks as safely as practicable, and how to deal with contaminated infectious materials and/or blood and body fluids/substances.

- Emergency first aid providers, pool attendants, life savers and life guards

Standard precautions should be used when people in this group are exposed to blood and body fluids/substances, or contaminated materials. Masks with filters for mouth-to-mouth resuscitation should be used, where available and practicable, and persons should be trained to use the masks appropriately. Resuscitation masks should be available in all first aid kits.

- Maritime workers and members of the armed services

Workers should be careful not to share items such as toothbrushes and razors. Standard precautions should be used when exposed to blood and body fluids/substances, or contaminated material. Masks with filters for mouth-to-mouth resuscitation, and training in their use, should be provided. Resuscitation masks should be available in all first aid kits.

- Police officers, fire fighters and ambulance personnel

Standard precautions should be used when exposed to blood and other body fluids/substances or contaminated materials. Masks with filters for mouth-to-mouth resuscitation, and training in their use, should be provided. Resuscitation masks should be available in all first aid kits.

- Prison officers, detention workers and security workers

Where there is a risk of contact with blood and body fluids/substances, or contaminated materials, standard precautions should be used regardless of whether the status of the prisoner or other person being treated is known. Masks with filters for mouth-to-mouth resuscitation, and training in their use, should be provided. Resuscitation masks should be available in all first aid kits.

- Sanitation or plumbing workers

People in this group should wear gloves and protective clothing, all cuts and scratches must be covered and hands should be washed before eating, drinking, and smoking and upon completion of work. They should be trained to manage any potential for contact with any sharps, including used syringes and needles, to understand how to undertake high-risk tasks as safely as practicable and how to deal with any sharps found. Standard precautions are necessary as part of safe practice since people in these occupational groups frequently deal with body fluids/substances which may or may not contain blood.

- Sex industry workers

Sex industry workers should require the use of condoms and dental dams at all times. Sex industry workers should be fully informed about the transmission risks of HBV, HCV, HIV and other sexually transmissible infections. They should also have immunisation for HBV and regular screening for sexually transmitted diseases, including HBV, HCV and HIV.

- Health care workers, hospital support staff and other care workers

People in this group should follow the recommendations outlined in the Communicable Diseases Network of Australia (CDNA) Infection Control Guidelines¹¹.

4.5 Education and training

All workers at risk of contact with blood and body fluids/substances, or contaminated materials in the course of their work must be educated/trained with regard to HBV, HCV and HIV. Workplace education and training programs should:

- form part of the induction program for new workers
- include refresher training to maintain and update knowledge
- relate to the activities of the workplace and be targeted to specific tasks
- provide updates when there are changes in information about blood-borne pathogens such as HBV, HCV and HIV
- provide updates when changes in work procedures and practices are introduced
- provide updates when new equipment is introduced
- provide training for the provision of first aid
- inform workers of the post-exposure testing, counselling and follow-up process
- inform workers of vaccination programs and encourage vaccination

11 See Communicable Diseases Network of Australia. *Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting (draft)*. 2003.

- train employees in correct procedures for exposure management
- utilise a variety of educational and training techniques involving the active participation of workers
- be provided in a manner appropriate to the workplace, taking disabilities, language and literacy issues into account
- inform workers about their legal rights and obligations regarding occupational safety and health and workers compensation
- direct workers to other reliable sources of information.

Employers should consult with the relevant occupational health and safety authority for further information regarding employee OHS training.

4.6 Exposure incidents

Procedures should be developed to cover incidents of occupational exposures to blood or other body fluids/substances from a sharps injury or splashing onto mucous membranes or non-intact skin. These procedures should cover:

- the immediate first aid response
- medical review and post-exposure counselling
- investigation required for monitoring and treatment, where appropriate
- prophylactic treatment
- reporting the incident to the employer, workers compensation insurer and relevant authority, where appropriate
- recording the incident and associated information
- reviewing existing prevention procedures in order to prevent another similar incident.

For sample procedures see Appendix C and Appendix D, which provide guidelines for managing exposure incidents and the collection and disposal of discarded sharps.

4.6.1 Immediate first aid response

The immediate first aid response should include:

- removing contaminated clothing
- promptly flushing the wound under running water
- washing the wound using warm water and liquid soap (except for the eyes, mouth and nose)
- rinsing the eyes, mouth and nose (if affected) thoroughly with warm water (without soap) or saline
- thoroughly pat-drying the area
- applying a sterile waterproof dressing (such as an adhesive plaster), as necessary, and applying pressure through the dressing if bleeding is still occurring
- seek medical advice.

First aid kits should contain disposable gloves, eye goggles, surgical facemasks and resuscitation masks to prevent the transmission of HBV, HCV or HIV between first aid providers and patients. However, the absence of these items should not prevent the administering of first aid in emergency situations. Further information on the content requirements of first aid kits can be obtained from State/Territory OHS authorities (see Appendix I).

4.6.2 Medical assessment

After any exposure incident involving blood and other body fluids/substances or contaminated materials, medical advice should be sought as soon as possible (where possible/required, prophylactic treatment is best given within two hours of exposure). A medical practitioner or other suitably qualified health worker should undertake this review. An assessment of the risk of infection should be made, based on factors such as the source and circumstances of the exposure, the affected person and the person from whom the blood or other body fluid/substance came (although in incidents not involving health care workers the source person would commonly not be known). Advice on the appropriateness and implications of monitoring and prophylactic treatment should also be provided.

4.6.3 Counselling

Exposures to blood, including needlestick injuries, can be a traumatic experience for the exposed person and counselling interventions should be made available to prevent stress reactions. Counselling is a legal requirement for HIV and procedures must cover the provision of appropriate pre- and post-test counselling for all exposed persons. Counselling is usually offered as part of any medical assessment for Hepatitis or HIV infection and will include information such as available testing procedures and treatments. Testing is a voluntary, but recommended, option that is subject to privacy and anti-discrimination legislation (See Appendix A).

Persons exposed to potentially infectious blood or body fluids/substances, or contaminated material, may need to modify their workplace or personal activities until their infectious status is clarified (up to six months and three blood tests, unless previously infected, in which case results will occur earlier). Test results indicating infection have important implications for the affected person.

4.6.4 Testing, monitoring and informed consent

Post-exposure procedures should cover when the testing should occur (i.e. ASAP), what tests should be undertaken, who should conduct the tests and how the test results will be followed up and communicated to the affected persons. Informed consent and pre-test counselling, for all parties concerned, is required before any such testing is undertaken.

After some exposure events, it is appropriate to test the infectious status of the person (source) from whom the blood or body fluid came (if this is known). The

source of the exposure has the right to refuse to be tested. If the source agrees to a test, they do not have to disclose the result. Furthermore, the testing medical officer is subject to privacy legislation and any restrictions this may place on the provision of personal health information.

As part of the post-exposure management process, it may be appropriate to offer voluntary baseline testing to the exposed person, especially in circumstances where the source is unknown. Where accepted, baseline testing should be conducted within 72 hours of the exposure incident. For HBV, immediate detection of non-immunity in the exposed person and the subsequent provision of post-exposure prophylactic (PEP) treatment, within one week of exposure, may provide protection from HBV. Depending upon the circumstances (i.e. unknown source) and risk of the exposure, baseline testing may provide similar benefits for HIV exposure since post-exposure antiretroviral intervention may be taken to modify or prevent spread of the virus. The need for baseline testing will be linked to the outcome of any post-exposure medical assessment and the recommendation of the attending health professional. However, undergoing testing remains a voluntary option and is subject to privacy and anti-discrimination legislation (see Appendix A).

Further testing of the exposed person for acquisition of a blood-borne infection may be appropriate between six weeks and six months, depending on the nature and extent of the exposure, and will be recommended by the attending health professional.

4.6.5 Prophylaxis

After some exposure events, PEP treatment may be recommended by a health professional until the infectious status of the affected person is known. This is particularly the case in moderate or high-risk exposures (i.e. the source is unknown) when the person is known not to be immune to Hepatitis B or where HIV exposure is suspected. In such cases prophylactic treatment is most successful if administered as close to the exposure incident as possible. Treatment for exposure to HBV and HIV should begin as soon as possible after the exposure, preferably within 24 hours and no later than 7 days. Treatment of non-immune persons with Hepatitis B immunoglobulin and /or vaccination against HBV infection may provide up to 75 per cent protection if administered within this timeframe¹². There is no post-exposure treatment available for HCV that will prevent infection.

Prophylactic treatments change as new information becomes available and workplaces should ensure that exposed persons have prompt access to health professionals who can provide up-to-date medical advice on the most appropriate prophylactic approach.

12 Centres for Disease Control. *Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis*. MMWR 2001 (June 29) 50(RR11); 1-42.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>

4.6.6 Record keeping and Notification

Under occupational health and safety legislation, employers are required to keep records of all health and safety incidents. The relevant occupational health and safety authority should be contacted regarding specific record keeping requirements.

Appropriate records should be kept in a secure place, with access only available to authorised persons. The records should include:

- a register of incidents
- outcomes of and information from associated investigations
- recommendations for action (i.e. testing and counselling)
- management response to recommendations, such as medical testing and counselling, and implemented changes to work practices and equipment etc. and
- evaluation of the effectiveness of the response.

Records should only contain additional information regarding resulting disorders and required treatments if the persons involved disclose the information. To do so without such permission may constitute a breach of privacy laws (see Appendix A for more information regarding discrimination and confidentiality). Records should be kept for 30 years, since some diseases have a long latency. The various States and Territories may have specific regulations on record retention times.

Detailed information on approaches to exposure incidents and prophylactic treatment of exposed persons is available from the Australian National Council for AIDS, Hepatitis C and Related Diseases¹³.

Employers are required by law to notify the relevant occupational health and safety authority of all work-related occurrences of injury or disease/illness, including Hepatitis B, Hepatitis C and HIV. Some States and Territories also require the notification of dangerous incidents/occurrences. Employers should contact the relevant occupational health and safety authority regarding their obligations to notify.

4.7 Vaccination

There is currently no vaccine for the prevention of HIV and HCV infection. There is a vaccine for HBV.

A universal HBV vaccination program for infants and young adults is now in place in Australia, but not all adults have been vaccinated. The *National Health and Medical Research Council (NHMRC) Immunisation Handbook* specifies some work situations for which HBV vaccination is recommended, but all workers should be offered vaccination where reasonable. Based on current NHMRC advice, work

13 ANCAHRD *Management of exposure to blood/body fluids in a health care setting*. ANCAHRD Bulletin No 29 (2002).

groups for whom HBV vaccination should be offered include, but are not limited to:

- all staff directly involved in patient/client care, embalming or in the handling of human blood or other body fluids/substances, including microbiology staff;
- staff of facilities for persons with developmental disabilities;
- staff of long-term correctional facilities;
- police, members of the armed forces and emergency services staff; and
- long-term business travellers or business travellers residing for some time in countries with a high prevalence of Hepatitis and HIV.

In addition to the above suggestions, specific occupations for which HBV vaccination is recommended by the NHMRC, or should be strongly considered, include those listed in Section 2.3 of this document.

Where risk assessment indicates there is unacceptable or substantial risk of contracting Hepatitis B at work, a vaccination protocol should be included in a policy for prevention and control of communicable disease in the workplace. This vaccination protocol should be developed and implemented in conjunction with a medical practitioner or accredited immuniser and based on the latest NHMRC advice. Vaccination should be provided to the worker free of charge. As with all vaccinations, the HBV vaccine is associated with side effects and complications in a minority of persons, and workers should always be advised to discuss vaccinations with a medical practitioner. There should also be a procedure for follow up of vaccinated employees to ensure that their coverage is sufficient, and provision of a booster injection if indicated. Post-vaccination serological testing (three months after the third dose of Hepatitis B) is currently recommended by the NHMRC for persons at substantial occupational risk of exposure to Hepatitis B. Non-responders to the Hepatitis B vaccine may require further management through means including:

- additional training or supervision
- increased access to or the provision of PPE for the employee
- instruction on post-exposure procedures, including the need for prompt assessment.

More detailed information can be obtained from the most recent edition of *The Australian Immunisation Handbook*¹⁴.

Enterprises with at-risk workers should develop, maintain and regularly update immunisation/health screening cards and/or records for all at-risk workers during the period of their employment. These records should be maintained in accordance with the establishment's policy for the retention of medical records. Workers should have access to their individual medical screening records on

14 See NHMRC. *The Australian Immunisation Handbook. 7th Edition*. Canberra: AusInfo, 2000. The eighth edition is currently in draft form.

request and extracts of these screening records should be available to workers whenever they change their place of employment. It is recommended that workers maintain their own personal records of all immunisations and screening.

4.8 Monitoring and evaluation

Work practices should be regularly monitored and evaluated to ensure that they are current and effective. Workers and their representatives should be involved in the monitoring and evaluation process.

The following should be part of any monitoring and evaluation process:

- effectiveness of workplace policies and procedures
- effectiveness of equipment
- level of compliance with standard precautions and other procedures
- level of uptake of vaccination programs
- effectiveness of information and training programs
- sources and causes of exposures to blood and body fluids/substances, or contaminated materials
- appropriate review and investigation of exposure incidents
- effectiveness of post-exposure follow-up.

APPENDIX A

Discrimination and Privacy

All States and Territories have relevant equal opportunity and disability discrimination Acts to stop discrimination against persons on the grounds of a past, present, imputed or future impairment. The discrimination can be direct or indirect.

Direct discrimination involves treatment that favours one person over another person in the same or similar circumstances. An example would be terminating the employment of someone because they have HIV or requiring patients who have HIV to wear identifying wristbands.

Indirect discrimination can occur if there are rules or requirements that apply to everyone, but which have the effect of disadvantaging one group and are not reasonable in the circumstances.

Employer responsibilities

With regard to Hepatitis B, Hepatitis C or HIV/AIDS in the workplace:

- Workers with Hepatitis B, Hepatitis C or HIV/AIDS should be treated in the same manner as any worker with a non-work related illness (e.g. cancer, heart disease).
- All employment decisions should be based exclusively on criteria relating to merit and fitness for work and have no reference to HBV, HCV or HIV infection.
- Pre-employment medical screening of employees for HBV, HCV or HIV should not be carried out.
- Information pertaining to an individual's HBV, HCV or HIV status must be kept confidential.
- Unless the work poses a danger to the worker, other workers or the public, the employer need not be informed that an employee is infected. It is against privacy legislation for an employer to inform anyone should they become aware that an employee is infected. However, occupational exposures resulting in infection may, by law, require notification to the relevant occupational health and safety authority.
- Notwithstanding this, health care workers and emergency service providers who become infected with HBV, HCV or HIV have responsibilities as professionals in relation to possible risks to others and may require specific advice on their obligations in the workplace. This advice should be obtained from the worker's medical practitioner or the relevant State or Territory health department.
- Employers who become aware of a prospective or existing employee with Hepatitis B, Hepatitis C or HIV/AIDS are obliged to make any reasonable adjustment, if required, to ensure the employee can continue to carry out the essential requirements of the job, so long as the adjustment does not cause unjustifiable hardship in terms of cost, dislocation to work practices etc.
- All normal sick leave and other leave entitlements should be no different for Hepatitis B, Hepatitis C or HIV/AIDS illnesses than for other illnesses. If

occupationally acquired, an employee is entitled to workers compensation benefits.

- Where practicable, an employee with Hepatitis B, Hepatitis C or HIV/AIDS should not be required to work where there is risk of transmission of other diseases that may increase or aggravate that employee's ill-health.

Other equal opportunity

Other equal opportunity laws make it illegal to discriminate on the grounds of an employee's sexual preferences and race. With regard to Hepatitis B, Hepatitis C or HIV/AIDS, this makes it illegal to discriminate in the following circumstances:

- A person's sexual preference: For example, discrimination against someone because of their homosexuality, or assumed homosexuality, and therefore the assumption that they may have HIV infection or AIDS.
- A person's race: For example, if it is assumed that people from certain countries are likely to have HIV infection or AIDS.

Worker responsibilities

Unless the work poses a danger to other workers or the public, workers are not obliged to inform their employer or other workers should they become aware that they, or another employee, are infected with HBV, HCV or HIV.

There should be no denial of services to existing or potential clients on the grounds that those clients have, or are thought to have, Hepatitis B, Hepatitis C or HIV. Standard precautions should be applied where the potential for exposure exists.

Confidentiality and the requirement to obtain consent to waive that confidentiality must be respected.

APPENDIX B

Principles of the Storage, Transport and Disposal of Clinical Waste

It is not expected that non-health care establishments would generate significant amounts of clinical waste. Nevertheless, small amounts of clinical waste may be generated at times, and establishments should have policies and procedures in place to deal with it. Clinical waste includes blood-contaminated materials, potentially infectious waste and sharps including needles and syringes but may be classified differently between States and Territories. State and Territory authorities, including health departments, environmental protection agencies (EPAs) and local councils, strictly regulate clinical waste to protect human health and the environment and should be consulted in the first instance regarding the classification of materials potentially considered clinical waste. Each workplace must ensure all applicable statutory requirements and guidelines are complied with. General waste management guidelines are set out below. Further information can be obtained from the relevant authorities.

Storage

Clinical and related waste should be stored in a weatherproof secure location, isolated from other wastes and in such a manner that it does not represent a risk to persons or the environment.

All designated sharps disposal containers should be rigid-walled, puncture resistant¹⁵ and labelled with the biohazard symbol recognised worldwide and adopted for use in Australia.

Sharps should not be cut, burnt or manipulated in such a way that would render them capable of piercing the skin.

The following precautions should be adopted with respect to these containers:

- Clinical waste should be stored in a clean, leak-proof, clearly labelled container suitable for transport to a disposal site.
- Persons responsible for collecting clinical waste must be authorised by the relevant State or Territory Health Department or other government authority.
- Reusable containers should be thoroughly cleaned and disinfected prior to reuse.

15 Appropriate container design is specified in:
Australian Standards AS/NZS 4031 (1992) *Non-reusable containers for the collection of sharp medical items used in health care areas*; and
AS/NZS 4261 (1994) *Reusable containers for the collection of sharp items used in human and animal medical applications*.

Transport

Transporters of clinical waste must be authorised by the relevant State or Territory authority. Infectious waste is classed as Dangerous Goods Class 6.2 and is covered by uniform legislation in all States and Territories.¹⁶

The holding compartment of the transport vehicles should be totally enclosed, weatherproof and lockable. Vehicles should carry equipment for managing spills, including driver safety kits (such as the spills kit suggested in Section 4.3.2 of this document). Signage requirements also apply. Clinical waste should not be held in the vehicle overnight. Compartments used for the transport of clinical waste should be regularly cleaned.

The relevant State or Territory authority must approve the disposal facility.

The transporter should provide a signed statement giving details about the producer of the waste and obtain the signed acknowledgment of the disposal site operator that the waste was received in accordance with applicable State or Territory requirements.

The transporter and waste producer must be aware of his/her responsibilities under any relevant Acts or Regulations.

Disposal

Methods of disposal approved by the State or Territory environment protection authority and the health department must be used to dispose of clinical waste. Local councils and State or Territory environment protection authorities should be consulted on appropriate disposal methods and facilities for clinical or related wastes.

Where waste can be disposed of at a municipal sanitary landfill site, the site operator should be notified. It should be off-loaded and covered with other site waste immediately.

Site operators must comply with any requirements of the relevant State or Territory authority

More detailed information on the above topics can be found elsewhere.¹⁷

16 For example, see Federal Office of Road Safety (1997). Guidance Notes for the Transport of Class 6.2 (Infectious Substance) Dangerous Goods. Available at: <http://www.dotrs.gov.au/transreg/guidnote-class62.pdf>

17 NHMRC. National Guidelines for Waste Management in the Health Care Industry. (1999). Australian Standards, AS/NZS 3816 (1998), *Management of clinical and related wastes*.

APPENDIX C

What to do in the event of an exposure

Problem

Employees at many workplaces can be at risk of a needlestick injury as a result of the careless disposal of a syringe in the workplace or in the handling of sharps in the normal course of their work (eg health care workers). Additional exposure may occur through splashes involving mucosal (i.e. eyes, mouth and nose) contact with blood or other body fluids/substances.

A needlestick injury or splash exposure is potentially a major health hazard that can also cause considerable stress to the employee and their family. The uncertainty of health outcomes of such an injury and the significant time (approximately six months) required to determine whether the employee's health has been compromised contribute to stress.

Solution

Where a **needlestick injury** has occurred, **take immediate action** to provide support and perform first aid and medical treatment.

- Step 1** Promptly flush the wound under running water.
- Step 2** Wash the wound using warm water and liquid soap (except for the eyes, mouth and nose).
- Step 3** Thoroughly pat-drying the area.
- Step 4** Apply a sterile waterproof dressing (such as an adhesive plaster), as necessary, and applying pressure through the dressing if bleeding is still occurring.
- Step 5** Follow the guidance provided in Appendix D and placing the syringe in a sealed container.
- Step 6** Ensure that the employee is provided with immediate medical advice by a registered health professional.
- Step 7** Accompany the employee to the doctor and ensuring the doctor is provided the sealed container with the syringe inside.
- Step 8** Offer the employee access to a trauma counselling service.
- Step 9** Ensure that confidentiality of the incident and anonymity of the injured person is maintained.
- Step 10** If a customer or non-employee has received the needlestick injury, follow Steps 1 through 5 and give the sealed container, with the syringe inside, to the person and encourage them to seek immediate medical advice.

Where a **splash exposure** has occurred, **take immediate action** to provide support and perform first aid and medical treatment.

- Step 1** Remove contaminated clothing.
- Step 2** Promptly flush any exposed wound (i.e. cut or broken skin) under running water.
- Step 3** Wash the exposed wound using warm water and liquid soap (except for the eyes, mouth and nose).
- Step 4** Rinse the eyes, mouth and nose (if affected) thoroughly with warm water (without soap) or saline.
- Step 5** Thoroughly pat-drying the area.
- Step 6** Apply a sterile waterproof dressing (such as an adhesive plaster), as necessary, and applying pressure through the dressing if bleeding is still occurring.
- Step 7** Ensure that the employee is provided with immediate medical advice by a registered health professional.
- Step 8** Accompany the employee to the doctor.
- Step 9** Offer the employee access to a trauma counselling service.
- Step 10** Ensure that confidentiality of the incident and anonymity of the person is maintained.
- Step 11** If a customer or non-employee has received a splash exposure, follow steps 1 through 6 and encourage the person to seek immediate medical advice.

Benefit

Immediate intervention to provide medical treatment and counselling support to the employee will assist the employee in coming to terms with the potentially dangerous and health threatening event. Furthermore, immediate medical treatment may prevent infection with Hepatitis B and aid in the treatment of HIV.

In the case of a needlestick injury, immediate intervention will also demonstrate to other employees the role they can play in alerting management and other employees to potential exposures when a syringe has been discovered.

APPENDIX D

What to do if you find a syringe

Problem

The inappropriate disposal of syringes is an increasing community health risk. Syringes are often not disposed of in a safe manner and are left where other people, including employees and customers, may be exposed to the risk of a needle stick injury. Workers and others at the workplace can inadvertently be exposed to the risk of a needlestick injury from a contaminated syringe, which may present a health risk.

Syringes may be clearly visible or may be disposed of within containers or hidden amongst other rubbish, products or clothing etc. Therefore it is imperative that employees receive adequate training in dealing with and disposing of inappropriately disposed syringes.

Workers should never:

- bend, break, recap or otherwise manipulate needles
- place their hands into areas where their hands or fingers are not clearly visible (e.g. into garbage bags and crevices)
- manually compress garbage bags
- hold garbage bags close to their body
- hold garbage bags by the base of the bag.

Solution

Employees should wear puncture resistant gloves where there is a possibility of contact with carelessly disposed syringes in the workplace or in the work process (e.g. sorting of rubbish or discarded clothing etc).

If a syringe is discovered the following steps should be taken, as a minimum, to protect against the potential health risks associated with a needlestick injury.

- Step 1** Do not touch the syringe before obtaining the designated equipment (where available). Do not improvise equipment if the designated equipment is unavailable.
- Step 2** Do not attempt to handle the syringe by hand. Warn others of the threat. If the syringe poses an immediate threat to the well-being of others in the area (i.e. a busy children's playground), the safest way to retrieve the syringe is to hold the barrel of the syringe in a gloved hand.
- Step 3** Obtain the designated equipment, which should include gloves, a sealable, puncture resistant, container or an approved contaminated waste container, and forceps or tongs.

- Step 4** Take the equipment to the syringe.
- Step 5** Wear puncture resistant gloves.
- Step 6** Open the container and place on a stable, level surface. Do not hold the container because a misdirected needle may contact the hand or forearm and result in a needlestick injury.
- Step 7** Do not attempt to bend, break or re cap the needle.
- Step 8** Using forceps or tongs, pick up the syringe, preferably at the opposite end (barrel) of the needle.
- Step 9** Carefully place the syringe into the container, needle end first (**DO NOT** force the needle into the container). Obtain a larger container if the syringe does not fit.
- Step 10** Seal the container.
- Step 11** Contact the local council or health service for information on appropriate disposal of the syringe.
- Step 12** If tongs or another designated pick up tool has been used, clean the item with detergent and warm water (while wearing impermeable gloves), then immerse the tool in a bleach solution for a least one minute. Air-dry and replace tongs/tool in appropriate area for future use.

Benefit

The implementation of effective and safe handling and disposal procedures of syringes provides protection for employees, customers or others at the workplace. The implementation of such procedures also provides an opportunity to develop a drug and alcohol policy or to reinforce current policies in this area.

APPENDIX E

Principles of Standard Precautions

Workers should use the principles of standard precautions, and additional precautions to develop safe working procedures appropriate to their workplace. The National Health and Medical Research Council of Australia (NHMRC) has recommended that standard precautions be used as the basic risk minimisation strategy, and that additional precautions be used where standard precautions may be insufficient to prevent transmission of infection, particularly via airborne, droplet and contact routes. Standard and additional precautions are usually described in terms of health care workers, as it is in the health care setting where they are most often applied, but they are relevant to all situations in which workers are exposed to blood or other body substances, or materials contaminated with these.

Implementation of standard precautions is the primary strategy for successful control of infections relevant to all workplaces, and particularly in health services or from activities associated with medical treatment and surgery. As an approach to infection control, standard precautions are essential because:

- blood and other body substances (or material contaminated with these) from unknown sources may be encountered in the course of normal work
- people may not show any symptoms or signs of illness from infections
- infectious status is often determined only by laboratory tests that cannot be completed in time to provide emergency care
- patients may be infectious before laboratory tests are positive or signs of disease are manifested (the window period of disease)
- people may be placed at risk of infection from those who are asymptomatic but infectious.

Standard precautions are intended to prevent infection by the following routes:

- percutaneous (e.g. cut) and parenteral (e.g. injection)
- mucous membrane (e.g. a splash onto the mouth)
- conjunctival (e.g. a spray into the eye)
- non-intact skin (e.g. contamination of a cut on the hand).

Conscientious use of these precautions will minimise the risk of workers acquiring infections and transferring infections between persons.

All workers should use standard precautions as a means of minimising any risk of blood-borne infection. They are recommended in the direct or indirect handling of blood; and all other body fluids/substances, regardless of whether they contain visible blood or are dried.

That is, precautions must be applied in all relevant working situations, and to all persons being treated, in order to protect workers from known and unknown

blood-borne pathogens in persons under their care or with whom they come into close contact.

Standard precautions include:

- care of intact, normal skin
- hand washing
- protection of damaged skin by covering with a waterproof dressing and gloves
- appropriate handling and disposal of sharps and other contaminated or infectious material or clinical waste
- the use of protective barriers which may include gloves, gowns, plastic aprons, surgical masks, eye/face shields or goggles
- containment of all blood and body fluids/substances, i.e. confining spills, splashes and contamination of the environment and workers to the smallest amount practicable
- regular cleaning of work areas
- cleaning and reprocessing of all re-usable equipment and instruments
- provision of effective support services such as laundry
- use of aseptic techniques where practicable.

Each workplace must ensure appropriate and adequate equipment such as gloves, aprons, etc, is available in a range of sizes at strategic points. Employee education and training in prevention measures should be carried out and standard operating procedures developed for all activities having the potential for exposure. Supervision has an important role in maintaining procedures and workers have a duty to follow the agreed procedures.

APPENDIX F

Workers with Hepatitis B, Hepatitis C or HIV

General issues

It is essential that the confidentiality of staff be protected in all matters related to their Hepatitis and HIV status.

In non-health-care settings, workers who are Hepatitis B, C or HIV positive and are healthy are able to undertake all their normal duties. However, they should consult a suitably qualified medical practitioner to assess their risk of transmission of disease during the performance of normal duties.

HBV, HCV or HIV positive workers should adhere to some general precautions to prevent transmission of the disease, most of which apply to all workers regardless of HBV, HCV or HIV status. These precautions include:

- covering any cuts or abrasions with a waterproof dressing or wearing gloves as required
- washing hands thoroughly after contact with blood and body fluids/substance
- not sharing personal items such as razors and toothbrushes
- not donating blood
- having regular follow-up medical assessments (particularly for HIV/AIDS).

First aid

HBV, HCV or HIV positive workers providing first aid in the workplace must adhere to standard precautions. First aid involving non-invasive procedures may be safely carried out providing standard precautions are strictly adhered to. Where practicable, HBV, HCV or HIV positive workers should not conduct invasive procedures while providing first aid. Where invasive procedures are required professional medical help should be sought.

Notification

All jurisdictions require an employer to notify the relevant State or Territory occupational health and safety authority and/or Health Department if they are aware that an employee has contracted certain diseases in the course of their work. Occupational infection with HBV, HCV or HIV requires notification. Similarly, medical practitioners are required to notify the relevant State or Territory health department of all cases of infection with HBV, HCV or HIV.

Under OHS legislation, employees have an obligation to cooperate with their employer to help the employer comply with occupational health and safety obligations, and to ensure the health and safety of others in the workplace who may be affected by the employee's acts or omissions. HBV, HCV or HIV positive employees may be required to notify their employer of incidents where they have

potentially exposed a fellow employee to HBV, HCV or HIV. Notification of such incidents is subject to privacy and discrimination legislation outlined in Appendix A. Further information regarding employee obligations can be obtained by consulting the relevant occupational health and safety authority.

APPENDIX G

Glossary

Antibody: substance in the blood counteracting the effect of a foreign substance. The presence of an antibody against an infectious organism means that a person has had contact with that organism - the person may have a clinical infection; or may have had infection in the past and be protected from re-infection, depending on the organism involved. Antibodies are not always protective eg HIV.

Antigen-antibody reaction: a process of the immune system where immunoglobulin-coated B cells recognise specific antigen and stimulate antibody production. Antigen-antibody reactions generally produce immunity.

Aseptic technique: any health care procedure in which added precautions, such as use of sterile gloves and instruments, are used to prevent contamination of a person, object or area by micro-organisms.

Asymptomatic: absence of any subjective evidence of disease or of a patient's condition, i.e. such evidence as perceived by the patient.

Body substances: includes any human bodily secretion, excluding sweat, or substance other than blood (i.e. amniotic, pericardial, peritoneal, pleural, synovial and cerebrospinal fluids, semen, vaginal secretions, tissues, urine and faeces).

Chronic: persisting for a long time.

Clinical and related waste: any waste contaminated with human or animal matter, originating from any patient care area, surgery, health or transport facility and any autopsy, surgical, pathological, dental or veterinary procedure. Includes the following categories:

- discarded sharps;
- human tissues (see 'body substances'), including material or solutions containing free-flowing blood;
- laboratory and related waste directly associated with specimen processing; and
- animal tissue or carcasses used in research.

Communicable disease: a disease that can be transmitted to people from a source of disease-causing organisms. Also called an 'infectious' or 'contagious' disease.

Conjunctiva: the mucous membrane that lines the inner surface of the eyelid and the exposed surface of the eyeball.

Dental dam: for the purpose of this document a dental dam is considered as a small sheet of latex that acts as a barrier between the vagina or anus and the mouth during oral sex.

Disinfection: the act or process whereby disease-causing organisms, except for spores, are killed using either heat and water (thermal) or chemical means.

Exposure prone procedure: any situation where there is a potential for transmission of blood-borne disease from the health care worker to the patient (or vice versa) during medical or dental procedures.

Health care workers: all people delivering health care services, including students, trainees, mortuary attendants, and hospital support staff (cleaners and launderers) who have contact with patients or with blood or body fluids/substances.

Intact skin: skin that is normal or unbroken.

Intravenous: within a vein.

Invasive Procedure: A diagnostic or therapeutic technique that requires entry of a body cavity or interruption of normal body functions.

Jaundice: yellow discolouration of the eyes and/or skin due to deposition of bile pigments.

Mucous membrane: a membrane lining all body passages that communicate with the air, such as the respiratory and alimentary tracts (including the mouth and nose), which easily absorbs many substances which come into contact with it.

Neurological disorders: disturbance of the healthy working of the nervous system.

Parenteral: pertaining to treatment other than through the digestive system (alimentary canal) such as injection via some other route.

Pathogen: any micro-organisms capable of producing disease.

Percutaneous: passed, done or effected through the skin.

Prophylaxis/prophylactic treatment: a measure, such as a device (i.e. condom), vaccine or drug, designed to preserve health or prevent disease.

Serological Testing: testing of blood serum for evidence of infection by evaluating antigen-antibody reactions in an artificial environment outside the living organism.

Sharp: object or device having sharp points or protuberances capable of cutting or piercing the skin.

Sterile: free from living pathogens (organisms).

Sterilisation: complete destruction of all micro-organisms, including spores.

APPENDIX H References

Note: At the time of preparing this national code of practice, these referenced documents were considered to be relevant by the National Commission. However, the future content and status of these references is beyond the control of the National Commission.

General

Communicable Diseases Network of Australia. *Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting (draft)*. 2003. Available at:

<http://www.health.gov.au/pubhlth/strateg/communic/review/draft.htm>

National Health and Medical Research Council of Australia. *Infection control in the health care setting: guidelines for the prevention of transmission of infectious diseases*. Canberra: Australian Government Publishing Service, 1996. Available at:

<http://www.health.gov.au/nhmrc/publications/pdf/ic6.pdf>.

Australasian Faculty of Occupational Medicine. *Infections in the workplace*. Sydney: AFOM, 1999. Available at:

<ftp://www.medeserv.com.au/racp/afom/infections.pdf>

National Health and Medical Research Council. *National Guidelines for Waste Management in the Health Care Industry*. Canberra: AusInfo, 1999.

Available at:

<http://www.health.gov.au/nhmrc/publications/pdf/eh11.pdf>

National Health and Medical Research Council of Australia. *Staying healthy in child care. 3rd Edition*. Canberra: AusInfo, 2001.

Available at:

<http://www.health.gov.au/nhmrc/publications/pdf/ch40.pdf>

Sports Medicine Australia. *Sports Medicine Australia Policy. Infectious diseases: with particular reference to HIV (AIDS) and viral Hepatitis (B, C, etc)*. Canberra: SMA, 1997. Available at:

<http://www.ausport.gov.au/fulltext/1997/sma/InfDisease.pdf>

Wan, KC. *Hepatitis B, Hepatitis C and work*. On-line lecture. Available at:

http://www.safetyline.wa.gov.au/institute/level2/course20/lecture81/l81_02.asp

Immunisation

National Health and Medical Research Council of Australia. *The Australian Immunisation Handbook*. 7th Edition. Canberra: AusInfo, 2000.

Available at:

http://www.health.gov.au/pubhlth/immunise/handbook_7.pdf

Prophylactic treatment

Centres for Disease Control. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis. *MMWR* 2001 (June 29) 50(RR11); 1-42.

Available at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>

ANCAHRD. Management of exposure to blood/body fluids in a health care setting. ANCAHRD Bulletin No 29: 2002.

Available at:

http://www.ancahrd.org/media_releases/bulletins/02/29_bloodbodyfluids.pdf

HIV/AIDS

Commonwealth Department of Health and Aged Care. National HIV/AIDS Strategy, 1999-2000 to 2003-2004. Changes and challenges. Canberra: AusInfo, 2000.

Available at:

http://www.health.gov.au/pubhlth/publicat/document/metadata/hivstrat_4.htm

Hepatitis C

Commonwealth Department of Health and Aged Care. Hepatitis C: Informing Australia's National Response. Canberra: AusInfo, 2000.

Available at:

http://www.health.gov.au/pubhlth/publicat/document/hepc_informing.pdf

Commonwealth Department of Health and Aged Care. National Hepatitis C Strategy 1999-2000 to 2003-2004. Canberra: AusInfo, 2000.

Available at:

http://www.health.gov.au/pubhlth/publicat/document/hepc_strat9900_0304.pdf

Australian/New Zealand Standards

AS/NZS 3816 (1998). *Management of clinical and related wastes.*

AS/NZS 4031 (1992). *Non-reusable containers for the collection of sharp medical items used in health care areas.*

AS/NZS 4146 (2000). *Laundry Practice*

AS 4187 (1998). *Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities.*

AS/NZS 4261 (1994). *Reusable containers for the collection of sharp items used in human and animal medical applications.*

AS/NZS 4815 (2001). *Office-based health care facilities not involved in complex patient procedures and processes — Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment and maintenance of the associated environment.*

APPENDIX I

Sources of information

State, Territory and Commonwealth Occupational Health and Safety Authorities

WorkCover Authority of New South Wales

Locked Bag 2906
Lisarow NSW 2252
Phone: 02 4321 5000
Fax: 02 4325 4145
<http://www.workcover.nsw.gov.au>

Victorian Workcover Authority

GPO Box 4306
Melbourne VIC 3001
Phone: 03 9641 1555
Fax: 03 9641 1222
<http://www.workcover.vic.gov.au>

Queensland Department of Industrial Relations - Division of Workplace Health and Safety

Brisbane North Office:

PO Box 820
Lutwyche QLD 4030
Phone: 07 3247 9444
Fax: 07 3247 9426
<http://www.whs.qld.gov.au>

Brisbane South Office:

PO Box 6500,
Upper Mt Gravatt QLD 4122
Phone: 07 3896 3363
Fax: 07 3216 8431

Occupational Health and Safety Division South Australian WorkCover Corporation

GPO Box 2668
Adelaide SA 5001
Phone: 08 8233 2222
Fax: 08 8233 2466
<http://www.workcover.com>

WorkSafe Western Australia

PO Box 294
West Perth WA 6872
Phone: 08 9327 8777
Fax: 08 9321 8973
<http://www.safetyline.wa.gov.au>

Workplace Standards Tasmania

GPO Box 56
Rosny Park TAS 7018
Phone: 03 6233 7657
Fax: 03 62 33 8338
<http://www.workcover.tas.gov.au>

Northern Territory Work Health Authority

GPO Box 4821
Darwin NT 0801
Phone: 08 8999 5010
Fax: 08 8999 6260
<http://www.nt.gov.au/deet/worksafe>

ACT WorkCover

PO Box 224
Civic Square ACT 2608
Phone: 02 6205 0200
Fax: 02 6205 0797
<http://www.workcover.act.gov.au>

Comcare

GPO Box 9905
Canberra City ACT 2601
Phone: 1300 366 979
Fax: 02 6257 5634
<http://www.comcare.gov.au>

National Occupational Health and Safety Commission

GPO Box 1577
Canberra ACT 2601
Australia
Phone: 02 6279 1000
Fax: 02 6279 1199
Email: info@nohsc.gov.au
<http://www.nohsc.gov.au/>

State, Territory and Commonwealth Health Departments

New South Wales Health Department

LMB 961

North Sydney NSW 2059

Phone: 02 9391 9000

Fax: 02 9391 9101

Needlestick Hotline: 1800 804 823

<http://www.health.nsw.gov.au>

Victorian Health Department

GPO Box 4057

Melbourne VIC 3001

Phone: 03 9616 7777

Fax: 03 9616 8329

<http://www.dhs.vic.gov.au>

Queensland Health Department

GPO Box 48

Brisbane QLD 4001

Phone: 07 3234 0111

Fax: 07 3234 1600

<http://www.health.qld.gov.au>

South Australian Department of Human Services

PO Box 287

Rundle Mall SA 5000

Phone: 08 8226 8800

Fax: 08 8226 0725

<http://www.dhs.sa.gov.au>

Western Australian Health Department

PO Box 8172

Perth Business Centre

Perth WA 6849

Phone: 08 9222 4222

Fax: 08 9222 4046

<http://www.health.wa.gov.au>

Tasmanian Health Department

GPO Box 125B

Hobart TAS 7001

Phone: 03 6233 3185

Fax: 03 6231 0735

<http://www.dhhs.tas.gov.au>

Northern Territory Health Department

PO Box 40596,

Casuarina NT 0811

Phone: 08 8999240

Fax: 08 8999270

<http://www.health.nt.gov.au>

ACT Health Department

GPO Box 825

Canberra ACT 2601

Phone: 02 6205 5111

Fax: 02 6207 5775

<http://www.health.act.gov.au>

Australian Department of Health and Ageing

GPO Box 9848

Canberra ACT 2601

Phone: 1800 020 103

Fax: 02 6281 6946

<http://www.health.gov.au/>

National Health and Medical Research Council of Australia (NHMRC)

Executive Secretary

Office of NHMRC

GPO Box 9848

Canberra ACT 2601

Phone: 02 6289 9184

Fax: 02 6289 9197

Email: exec.sec@nhmrc.gov.au

<http://www.health.gov.au/nhmrc/>

State, Territory and Commonwealth Environmental Regulators

NSW Environment Protection Authority

Sydney City Office

PO Box A290, Sydney South 1232

Phone: 02 9995 5000 (switch)

Fax: 02 9995 5999

Email: info@epa.nsw.gov.au

<http://www.epa.nsw.gov.au>

(Please refer to the NSW EPA website or your White Pages for your local NSW EPA Office contact details)

Environmental Protection Authority Victoria

GPO Box 4395QQ

Melbourne Victoria 3001

Phone: 03 9695 2700

FAX: 03 9695 2780

<http://www.epa.vic.gov.au>

Queensland Environmental Protection Agency

160 Ann St Brisbane 4000

Phone: 07 3227 8186 (General Information)

Phone: 07 3225 1999 (WASTEWISE)

Email nqic@epa.qld.gov.au

<http://www.epa.qld.gov.au>

Environment Protection Authority South Australia

GPO Box 2607

Adelaide SA 5001

Phone: 08 8204 2000

Freecall: 1800 623 445 (country callers only)

Fax: 08 8204 9393

Email: epainfo@state.sa.gov.au

<http://www.environment.sa.gov.au/epa/>

Environmental Protection Authority of Western Australia

PO Box K822

Perth Western Australia 6842

Phone: 08 9222 7000

Fax: 08 9222 7155

Email: info@environ.wa.gov.au

<http://www.epa.wa.gov.au/>

Tasmanian Department of Primary Industries, Water and Environment

GPO Box 44, Hobart

Tasmania 7001

Phone: 1300 368 550 (Local call cost)

Phone: 03 6233 8011

Fax: 03 6234 1335

<http://www.dpiwe.tas.gov.au>

Northern Territory Office of Environment and Heritage

GPO Box 1680

Darwin NT 0801

Phone: 08 8924 4139

Fax: 08 8924 4053

<http://www.lpe.nt.gov.au/enviro/>

Australian Capital Territory Department of Urban Services

GPO Box 158

City ACT 2601

Phone: 13 22 81 (24hrs ACT and NSW residents only)

Phone: 02 6207 5111 (24hrs for callers outside NSW/ACT)

<http://www.urbanservices.act.gov.au/>

Environment Australia

GPO Box 787

Canberra ACT 2601

Phone: 02 6274 1111

Fax: 02 6274 1123

<http://www.ea.gov.au>

Other Relevant Organisations

Australian National Council on AIDS, Hepatitis C and related diseases (ANCAHRD)

ANCAHRD Secretariat
GPO BOX 9848
Canberra ACT 2601
<http://www.ancahrd.org/>

Australasian Faculty of Occupational Medicine

145 Macquarie Street
Sydney NSW 2000
Phone: 02 9256 5400
Fax: 02 9247 8082
Email: afom@racp.edu.au
<http://www.racp.edu.au/afom/index.htm>

Sports Medicine Australia

PO Box 237
Dickson ACT 2602
Phone: 02 6230 4650
Fax: 02 6230 5908
Email: smanat@sma.org.au
<http://www.ausport.gov.au/sma/>

Alcohol and Other Drugs Council of Australia (ADCA)

PO Box 269
Woden ACT 2606
Phone: 02 6281 0686
Fax: 02 6281 0995
Email: adca@adca.org.au
<http://www.adca.org.au/>

Australian Hepatitis Council

Phone: 02 6232 4257
Fax: 02 6232 4318
info@Hepatitisaustralia.com
<http://www.Hepatitisaustralia.com>

Australian Infection Control Association Inc.

<http://www.aica.org.au>

APPENDIX J

Acknowledgments

This code of practice was originally based on an equivalent code of practice developed by Worksafe Western Australia:

Worksafe Western Australia. *Code of practice on the management of HIV/AIDS and Hepatitis at workplaces*. Perth: Worksafe Western Australia, 2000.

The content of the code has also been designed to be consistent with a publication from the Communicable Diseases Network of Australia that is soon to be released. Relevant parts of the current Code are either based on the content of the guidelines, or use the exact words contained in the guidelines:

Communicable Diseases Network of Australia. *Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting (draft)*. 2003.