Approved Code of Practice for the Control of Work-related Exposure to Hepatitis and HIV Viruses in Australian Government Employment

Safety, Rehabilitation and Compensation Commission

July 2004
Acknowledgements and publication details

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

Publication details:
Comcare
@ Australian Government, 2004
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ISBN xxxxxxxxxxx
Comcare
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First published month and year
Foreword


Functions of the SRCC include:

- developing occupational health and safety (OHS) policies and strategies and ensuring compliance with the OHS(CE) Act
- overseeing legislative policy in relation to the OHS(CE) Act and advising the Minister for Employment and Workplace Relations on matters relating to the OHS(CE) Act.
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Purpose

The purpose of this approved code of practice is to provide practical guidance for the management of exposure to Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV) in Australian Government employment.

What is an approved code of practice?

An approved code of practice is a source of expert practical information about safe work practices in specific circumstances.

Authority

The Minister for Employment and Workplace Relations approved this code under section 70 of the Occupational Health and Safety (Commonwealth Employment) Act 1991 (the OHS(CE) Act). This approved code of practice came into effect on 25 August 2004, the date of gazettal.

Who this code applies to

This approved code of practice applies to all employers and employees covered by the OHS(CE) Act.

How this code applies

Sub-section 16(1) of the OHS(CE) Act states that:

An employer must take all reasonably practicable steps to protect the health and safety at work of the employer's employees.

This approved code of practice:
- provides practical guidance to people with a duty of care under the OHS(CE) Act
- should be followed unless there is another means of achieving the same or better standards of health and safety
- is admissible as evidence in proceedings under the OHS(CE) Act and supporting regulations.

This approved code of practice may be cited by:
- an investigator
- a health and safety representative in a provisional improvement notice.
Definitions

**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, for example 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 the 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, that is, 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
- 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.

**Disinfection:** the act or process whereby disease-causing organisms, except for spores, are killed using either thermal (heat alone, or heat and water) or chemical means.
**Exposure prone procedure:** any situation where there is a potential for transmission of blood-borne disease from a health care employee to a patient (or vice versa) during medical or dental procedures.

**Health care employees:** 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 substances.

**Intact skin:** skin that is normal or unbroken.

**Intravenous:** within a vein.

**Invasive procedure:** a diagnostic or therapeutic technique that requires entry to 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 disorder:** 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, 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 point or protuberance capable of cutting or piercing skin.

**Standard precautions:** work practices required for the basic level of infection control. Standard precautions are recommended for the treatment and care of all patients, and apply to all body fluids, secretions and excretions (excluding sweat), regardless of
whether they contain visible blood (including dried body substances such as dried blood or saliva), non-intact skin and mucous membranes. Standard precautions include good hygiene practices, particularly washing and drying hands before and after patient contact, use of protective barriers which include gloves, gowns, plastic aprons, masks, eye shields or goggles and appropriate handling and disposal of sharps and other contaminated or infectious waste and the use of aseptic technique.

**Sterile:** free from living pathogens (organisms).

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

1.1 There is the potential, within a variety of workplaces and/or work, for people 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 at work. Exposure to these viruses can be prevented and managed by following the principles of a three-step risk management process:

- hazard identification
- risk assessment
- risk control.

**Hepatitis viruses**

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

1.3 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.

1.4 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.

**Hepatitis B virus**

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

- by injection or injury with contaminated injecting equipment (such as 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 (such as splashes of body substances to the mouth, nose, eyes or non-intact skin)
- during pregnancy, childbirth and breastfeeding from mother to child.
1.6 HBV can survive in blood and body substances outside the body. HBV is not usually transmitted by casual contact between people. A vaccine is available to prevent against HBV infection.

1.7 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 at work, or from mucosal contact (such as splashes of body substances to the mouth, nose, eyes or non-intact skin).

1.8 The majority of adults who are infected with HBV do not suffer serious illness and may not develop jaundice. If an obvious illness does develop, 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 of the Australian population has chronic (long term) Hepatitis B, although the carrier rate is higher in some sub-populations.

Hepatitis C virus

1.9 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 drug injecting equipment is shared. Moderate to low risk modes of transmission include tattooing and body piercing with contaminated equipment, needlestick injuries, blood product transfusions in Australia prior to 1990 and transmission from mother to baby.

1.10 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.

1.11 In the initial stages of infection there are often no signs or symptoms of disease. Around 75 per cent of people 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.
1.12 Occupational infection of HCV may occur through injury from contaminated sharps or, more rarely, through mucosal (such as mouth, nose, eyes or non-intact skin) contact with blood.

Other Hepatitis viruses

1.13 This code does not deal specifically with Hepatitis viruses that are not communicated by exposure to blood and body substances. Hepatitis A, and the less common Hepatitis E, have different modes of spread, and many different applicable control measures to those of the other viruses covered by the code. Further information on Hepatitis can be obtained from the Department of Health and Ageing.

Human Immunodeficiency Virus (HIV)

1.14 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 a person has few or no symptoms of the disease.

1.15 HIV usually progresses through several stages:

- In the initial weeks of infection, a 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).
- Following initial infection, there is a long period during which a 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 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. A person may become terminally ill with infections, cancers or neurological disorders.

1.16 HIV is not as infectious as HBV or HCV but is spread by similar means. Infection with HIV can occur through the transfer of infected human blood or other body 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.
1.17 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 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.

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

1.19 Although HIV can survive in body 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.

1.20 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
- toilets, urinals or swimming pools.
2. Risk Management

2.1 The SRCC recommends risk management as the preferable method for controlling risks in Australian Government employment.

2.2 Risk management:

- is a method of assessing and controlling risks associated with an activity, function or process
- involves the systematic application of organisational resources to the tasks of identifying, analysing, assessing, controlling and monitoring exposures to risk and adverse effects of such risks
- is primarily the employer's responsibility and should be conducted in consultation with employees and/or their representatives\(^1\)
- is a careful examination of what could cause harm to people so employers and employees can decide what precautions should be taken to prevent the harm at work
- allows employers flexibility to devise a tailor-made solution for their particular circumstances
- requires employers and employees to decide whether a hazard is significant and whether it is covered by satisfactory precautions so that the risk is small.

In making such decisions employers and employees may:
- compare its controls to other similar working environments
- consult with industry associations and/or involved unions
- consult with specialists
- consult with Comcare.

- need not be awkward or complicated. Risk management activities must receive resources in proportion to the risk involved
- gives everyone the opportunity to be consulted and to agree on what rules should apply.

2.3 Exposure to blood-borne viruses can be prevented and managed by following the principles of risk management:

- hazard identification
- risk assessment
- risk control

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\(^1\) Consultation requirements of the *Occupational Health and Safety (Commonwealth Employment) Act 1991* apply.
3. **Hazard Identification**

3.1 Hazard identification is the first step in an overall risk management approach. Hazard identification should identify activities that may put employees or members of the public at risk of transmission of HBV, HCV or HIV as a result of work-related activities.

3.2 The two stages in hazard identification are:

- identifying potential sources of infection
- identifying activities and occupations where hazards exist, and potential means of transmission, for example first aid, cleaning toilets or during exposure-prone procedures in health care.

**Potential sources of infection of HBV, HCV and HIV**

3.3 Sources of infection can include:

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

**Activities and occupations where hazards exist**

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

- consultation with employees to determine activities likely to result in the transmission of HBV, HCV and HIV
- analysis of available reports of HBV, HCV and HIV exposures
- audits that include workplace layout, work practices, sources of exposure to blood and body substances and those occupations involving potential exposure to HBV, HCV and HIV.

3.5 In identifying activities and occupations where hazards exist, it is necessary to give consideration to the transmission modes of HBV, HCV and HIV in the working environment. Transmission may occur when:

- contaminated sharps penetrate the skin
- infected blood or other body substances splash into the eye or onto other mucous membranes, or broken skin.
3.6 Whilst most potential work-related exposures are unlikely to result in transmission, any occupation that involves potential exposure to HBV, HCV and HIV must be included in any risk assessment.

3.7 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, public parks, gardens, playing areas, crash sites and biohazard areas.

3.8 Therefore, a wide range of exposure circumstances affecting many occupations requires specific risk assessment. Employers of any of the following occupations should recognise that inadvertent exposure is a risk and employees should be made aware of the exposure risks and preventive procedures. These include, but are not limited to:

- bar service staff
- care workers for people with disabilities, children, the aged, and others who have to self-inject for health reasons (such as diabetics)
- cleaning staff
- correctional and detention centre (including adult prisons and juvenile justice centres) workers
- dentists, dental assistants and dental therapists
- emergency care workers such as members of the police, fire brigade, ambulance and other related services, including lifesavers and SES
- 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
- medical and forensic laboratory technicians
- medical practitioners
- maritime workers
- members of the armed services
- nursing staff
- operating theatre staff, including surgeons and anaesthetists
- parks and gardens employees, including National Parks and Wildlife Service workers
- pathology laboratory employees
- people who officiate or work in contact sports
- podiatrists
- police officers
- post-mortem technicians, other mortuary staff and funeral services workers
• postal workers
• public transport workers (such as rail, tram and bus drivers)
• restaurant staff
• sanitation workers
• security workers
• teachers
• visitors services employees
• workers travelling overseas.
4. Risk Assessment

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

4.2 Risk assessment should take into account the:

- type and frequency of exposure to blood or body substances, or to contaminated materials, including the:
  - probability of exposure
  - amount of blood or body substances
  - type of body substance encountered
  - possible routes of transmission
  - consideration of multiple exposures, including multiple sources.
- volume and frequency of contact with discarded used needles and syringes
- factors contributing to exposures and their recurrence
- risks of exposure to blood or body 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
- level of knowledge and training of employees regarding HBV, HCV and HIV, including safe work practices
- availability and use of personal protective equipment (PPE), including rubber gloves, eye goggles and face shields
- 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 substances, or contaminated materials
- individual risk factors for each employee, such as damaged or broken skin, dermatitis and eczema
- number of employees and other people at risk of exposure
- availability of vaccines and post exposure prophylaxis
- current risk control measures and the potential need for new risk control measures.
5. **Risk Control**

5.1 After completion of a risk assessment, consideration must be given to controlling the risks. The three main steps in risk control are:

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

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

- safe work procedures, incorporating standard and additional transmission based precautions
- 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 employees in the risk control measures
- well-designed equipment
- well-designed work premises.

5.3 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 substances and contaminated materials, through the implementation of standard precautions and other strategies
- the isolation of processes to reduce the number of people exposed, for example, when handling blood products in the laboratory and biological waste disposal systems
- relevant processes are totally enclosed, for example by using a biological safety cabinet
- availability and use of appropriate personal protective equipment
- 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
- employees are appropriately educated and trained.
5.4 Procedures should be developed for each component of the infection prevention and control strategy, including:

- documented safe working practices
- purchasing policies
- interacting with members of the public or clients
- non-discriminatory management of situations where employees are known to be infected with HBV, HCV and HIV.

5.5 Employers should provide for first aid arrangements in line with the Approved Code of Practice for First Aid in Commonwealth Workplaces.

5.6 It is essential that the confidentiality of employees and third parties be protected in all matters, including their Hepatitis and HIV status. In the Australian Government, confidentiality issues are covered by the Privacy Act 1988.
6. **Risk Control - Sharps**

6.1 The principal risk of occupational exposure to infection of HBV, HCV and HIV for most employees is from sharps injuries. In many non-health sectors, employees 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, employees should not attempt to improvise. Rather, it is safer to dispose sharps by holding the barrels of the syringes with gloved hands. Sharps should be placed in sealable rigid-walled, puncture-resistant containers, and local council or health services 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.

6.2 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. 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, health services or government agencies.

6.3 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 a sharp should be responsible for its safe disposal
- sharps should not be passed by hand between employees
- disposable sharps should be used where possible
- reusable sharp instruments should be reprocessed to minimise exposure
  (for example, by using automated mechanical cleaning processes).

6.4 Where there is a risk of sharps injury, written protocols for safe handling of sharps should be provided, and employees should be fully trained in recommended handling techniques. Employees should **not**:

- bend, break, recap or otherwise manipulate needles
- place hands into areas where hands or fingers are not clearly visible (such as into garbage bags and crevices)
- manually compress garbage bags
- hold garbage bags close to the body
- hold garbage bags by the base of the bag.
6.5 The risk of infection from needlestick and sharps injuries is generally low and varies depending on the virus.

**Hepatitis B virus**

6.6 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 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.

**Hepatitis C virus**

6.7 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.

**Human Immunodeficiency Virus (HIV)**

6.8 The risk of contracting HIV from a needlestick or sharps injury exposure to HIV infected blood is approximately 0.3 per cent. In other words, 99.7 per cent of needlestick or sharps injury exposures to HIV infected blood do not lead to infection.

6.9 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. 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, or large areas of skin have been exposed or prolonged exposure has occurred.
7. **Risk Control - Safe working procedures**

7.1 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 substances, regardless of whether they contain visible blood. The principles of standard precautions should be used to develop safe working procedures appropriate to work and the workplace. Standard and additional transmission-based precautions are designed primarily to protect health care employees and health care consumers from infection, but many other employees and clients are at risk of exposure to blood or other body substances, or contaminated materials. Standard precautions are described in detail in Appendix E.

7.2 Regardless of the source, any material soiled with blood or body 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 substances, should treat the material as potentially infectious.

7.3 Employees must be educated, trained and supervised to ensure that safe working procedures are implemented and followed. Training needs, relevant to safe working procedures, should be assessed in consultation with employees and their representatives.
8. **Risk Control - Standard precautions**

8.1 Hand washing facilities should include running water, soap and single-use towels, preferably paper. Where running water is unavailable alternative hand cleaning methods, such as alcohol-based hand rubs, should be made available.

8.2 The personal hygiene principles listed below should apply to all contacts between employees and other people:

- hands must be washed after contact with blood and body substances and before eating, drinking or smoking
- mild liquid handwashes (with no added substances that may cause irritation or dryness) should be used for routine hand washing
- use warm water and pat hands dry rather than rubbing, to minimise chapping of hands
- liquid handwash dispensers with disposable cartridges, including 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 techniques and use of suitable individual-use hand creams
- aqueous-based hand creams should be used before wearing gloves. Oil-based preparations should be avoided as they may cause latex gloves to deteriorate
- water impermeable gloves must be readily available to all employees and worn when likely to be exposed to blood or other body substances, or contaminated materials. Wearing gloves substantially reduces the risk of hands being contaminated with blood or other body substances
- 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 once the specific task is finished
- waterproof aprons or gowns should be worn when clothing may be contaminated with blood or other body substances
- surgical masks and/or protective eyewear should be worn where eyes and/or mucous membranes may be exposed to splashed or sprayed body substances
- cuts or abrasions on any part of an employee’s body must be covered with waterproof dressings.
Cleaning, disinfection and sterilisation of equipment

8.3 Cleaning of equipment and other items that are, or are likely to be, contaminated with blood or other body substances should initially be done with detergent and warm water.

8.4 Where automated or 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. Scrubbing brushes 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 should be washed as soon as possible following contamination to prevent contaminants drying. Care should be taken during cleaning to avoid splashing. Eye protection and surgical masks should be worn. All cleaned items should be thoroughly dried prior to storage.

8.5 More specific approaches, such as disinfection and sterilisation, may be required in industries including the health sector, but cleaning must always precede disinfection or sterilisation.

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

Spills

8.7 Spilled blood and body substances may be encountered in workplace. These should be attended to immediately. The basic principles of spill management are:

- standard precautions apply, including the use of personal protective equipment
- 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.

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

- Protective clothing
  - Employees involved in cleaning must wear protective clothing including disposable gloves. If a spill covers a large area, waterproof aprons or
gowns and overshoes will also be needed to prevent contamination of clothing.

- **Cleaning**
  - 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 substance.
  - Treat debris as clinical waste.
  - 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 relevant agencies to determine a classification for materials used to clean the spill and any further action required.

8.9 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 (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 (for example, where there is a likelihood of bare skin contact with the contaminated surface).

8.10 Standard cleaning equipment, including mops and cleaning buckets plus cleaning agents, should be readily available for spill management and should be stored in areas known to all employees. Granular formulations that produce high available chlorine concentrations can contain the spilled material and are useful for preventing aerosols. Scrapers and pans should be used to remove absorbed material. Areas of the spills should then be cleaned with mops and buckets of warm water and detergent. All re-useable cleaning equipment should be thoroughly cleaned after use and stored dry.

8.11 For larger spills and spills in field situations, it may be advisable to have a spill kit prepared. This should 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 parts per million available chlorine or equivalent
- disposable impermeable rubber gloves suitable for cleaning
- eye protection
• plastic aprons
• disposable, sturdy scrapers and pans
• full face surgical masks
• respiratory protection devices (for protection against inhalation of powder from the disinfectant granules, or aerosols which may be generated from high-risk spills during cleaning processes).

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

Laundry

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

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

8.14 Standard precautions should be followed when handling linen. The basic principles of linen handling are:

• all used linen should be considered potentially infectious
• all linen visibly contaminated and wet with blood or body substances must be placed in an appropriate impermeable bag
• used linen, not visibly contaminated or wet, should 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
• sharps containers should be available for disposal of any sharps found in the linen.
8.15 A hot water and detergent solution is adequate for cleaning most laundry items and equipment.

Waste management

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

- segregation and disposal of waste in areas 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 and local council requirements
- actions to follow in the event of spills or other contaminations during collection, transport, storage or disposal of waste.

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

Personal protective equipment

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

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

- non-porous waterproof dressings for employees 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.

8.20 Gloves should be worn whenever employees may come into contact with blood and other body 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.

8.21 Education/instructions about the correct and appropriate use of personal protective clothing and equipment should be provided.
9. Risk Control - Strategies for certain occupations

9.1 Employers of employees 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 people in these occupations and other controllers of workplaces with employees in these occupations. The fundamental principle for all occupations and tasks is that all people and all body substances should be treated as infectious. The occupations include the groups identified under the headings below:

Retail employees, care employees, cleaners, postal employees, public transport employees, teachers, parks/beach and gardens employees, plumbers

9.2 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

9.3 People who officiate or work in contact sports should follow the recommendations outlined in the Sports Medicine Australia Policy. Infectious diseases: with particular reference to HIV (AIDS) and viral Hepatitis (B, C, etc).

Crash site and wreckage investigators

9.4 Standard precautions should be used when people in this group are exposed to blood and body substances, or contaminated material. Investigators should avoid direct contact with any potentially infected material i.e. wreckage, soil etc. and/or blood and body substances. Until properly protected, investigators should avoid any investigative procedure on potentially infected material and/or blood and body 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 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 substances.
Emergency first aid providers, pool attendants, life savers and life guards

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

Maritime employees and members of the armed services

9.6 Employees should be careful not to share items such as toothbrushes and razors. Standard precautions should be used when exposed to blood and body 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

9.7 Standard precautions should be used when exposed to blood and other body 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 employees and security employees

9.8 Where there is a risk of contact with blood and body 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.

Health care employees, hospital support staff and other care employees

9.9 People in this group should follow the recommendations outlined in the Communicable Diseases Network of Australia Infection control guidelines for the prevention of transmission of infectious diseases in the healthcare setting.
10. **Risk Control - Education and training**

10.1 All employees at risk of contact with blood and body 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 induction programs for new employees
- 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 first aid training
- inform employees of post-exposure testing, counselling and follow-up processes
- inform employees of vaccination programs and encourage vaccination
- train employees in correct procedures for exposure management
- utilise a variety of educational and training techniques involving the active participation of employees
- be provided in a manner appropriate to the workplace, taking disabilities, language and literacy issues into account
- inform employees about their legal rights and obligations regarding occupational safety and health and employees compensation
- direct employees to other reliable sources of information.

10.2 Employers should consult with Comcare for further information regarding employee OHS training.
11. Risk Control - Exposure incidents

11.1 Procedures should be developed to cover incidents of occupational exposure to blood or other body 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
- prophylactic treatment
- reporting the incident to the employer
- recording the incident and associated information
- reviewing existing prevention procedures in order to prevent another similar incident.

Immediate first aid response

11.2 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
- seeking medical advice.

11.3 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.

11.4 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 the Approved Code of Practice for First Aid in Commonwealth Workplaces.

Medical assessment

11.5 After any exposure incident involving blood and other body 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 employee 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 substance came. Advice on the appropriateness and implications of monitoring and prophylactic treatment should also be provided.

Counselling

11.6 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. Procedures must cover the provision of appropriate pre- and post-test counselling for all exposed people. 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).

11.7 People exposed to potentially infectious blood or body substances, or contaminated material, may need to modify their work 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.

Testing, monitoring and informed consent

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

11.9 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.

11.10 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. 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 treatment, within one week of exposure, may provide protection from HBV. 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.

11.11 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.

**Prophylaxis**

11.12 After some exposure events, post-exposure prophylactic 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 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 people with Hepatitis B immunoglobulin and/or vaccination against HBV infection may provide up to 75 per cent protection if administered within this timeframe. There is no post-exposure treatment available for HCV that will prevent infection.

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

**Record keeping and notification**

11.14 The *Occupational Health and Safety (Commonwealth Employment) Act 1991*, requires employers to notify Comcare and keep records of all deaths, serious personal injuries and dangerous occurrences involving exposure to Hepatitis B, Hepatitis C and HIV viruses.
11.15 Appropriate records should be kept in a secure place, with access available to authorised people only. The records should include:

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

11.16 Records should contain additional information regarding resulting disorders and required treatments only if the people involved disclose that information. To do so without such permission may constitute a breach of privacy laws. Records should be kept for 30 years.
12. **Risk Control - Vaccination**

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

12.2 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 employees should be offered vaccination where reasonable. Based on current NHMRC advice, work 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 substances, including microbiology staff
- staff of facilities for people with developmental disabilities
- staff of long-term correctional facilities
- police, members of the armed forces and emergency services staff
- long-term business travellers or business travellers residing for some time in countries with a high prevalence of Hepatitis B.

12.3 Where a risk assessment indicates an 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 employee free of charge.

12.4 As with all vaccinations, the HBV vaccine is associated with side effects and complications in a minority of people, and employees 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 people at substantial occupational risk of exposure to Hepatitis B.

12.5 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.

12.6 Employers with at-risk employees should develop, maintain and regularly update immunisation/health screening cards and/or records for all at-risk employees during the period of their employment. These records should be maintained in accordance with the organisation’s policy for the retention of medical records. Employees should have access to their individual medical screening records on request and extracts of these screening records should be available to employees whenever they change their place of employment. It is recommended that employees maintain their own personal records of all immunisations and screening.
13. **Risk Control - Monitoring and evaluation**

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

13.2 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 substances, or contaminated materials
- appropriate review and investigation of exposure incidents
- effectiveness of post-exposure follow-up.
Appendix A - Discrimination and Privacy

A.1 The Disability Discrimination Act 1992, the Equal Employment Opportunity (Commonwealth Authorities) Act 1987 and the Privacy Act 1988 have relevant equal opportunity, disability discrimination and privacy provisions to stop discrimination against people on the grounds of a past, present, imputed or future impairment. The discrimination can be direct or indirect.

A.2 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.

A.3 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. An example would be offering employees a half-day off to give blood. It seems to be a rule that benefits equally to everyone, but in fact, it may indirectly discriminate against people living with HIV or hepatitis C, who are unable to donate blood.

Employer responsibilities

A.4 With regard to Hepatitis B, Hepatitis C or HIV/AIDS in the workplace:

- employees with Hepatitis B, Hepatitis C or HIV/AIDS should be treated in the same manner as any employee with a non-work related illness
- 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 employee, other employees 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 require notification to Comcare
- notwithstanding this, health care employees 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
- 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 and dislocation to work practices

- 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 laws

A.5  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.

Employee responsibilities

A.6  Unless the work poses a danger to other employees or the public, employees are not obliged to inform their employer or other employees should they become aware that they, or another employee, are infected with HBV, HCV or HIV.

A.7  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.

A.8  Confidentiality and the requirement to obtain consent to waive that confidentiality must be respected.
Appendix B - Storage, Transport and Disposal of Clinical Waste

B.1 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 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 states and territories authorities.

Storage

B.2 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 people or the environment.

B.3 All designated sharps disposal containers should be rigid-walled, puncture resistant and labelled with the biohazard symbol recognised worldwide and adopted for use in Australia.

B.4 Sharps should not be cut, burnt or manipulated in such a way that would render them capable of piercing the skin.

B.5 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
- people 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.

Transport

B.6 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.
B.7 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 8.10 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.

B.8 The relevant State or Territory authority must approve the disposal facility.

B.9 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.

B.10 The transporter and waste producer must be aware of his/her responsibilities under any relevant Acts or Regulations.

Disposal

B.11 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.

B.12 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.

B.13 Site operators must comply with any requirements of the relevant State or Territory authority.
Appendix C - What to do in the event of an exposure

Problem

C.1 Employees can be at risk of a needlestick injury as a result of the careless disposal of a syringe at the workplace or in the handling of sharps in the normal course of their work. Additional exposure may occur through splashes involving mucosal (mouth, nose, eyes or non-intact skin) contact with blood or other body substances.

C.2 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

C.3 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-dry the area.
Step 4 Apply a sterile waterproof dressing (such as an adhesive plaster), as necessary, and apply pressure through the dressing if bleeding is still occurring.
Step 5 Follow the guidance provided in Appendix D and place the syringe in a sealed container.
Step 6 Ensure that the employee is provided with immediate medical advice.
Step 7 Accompany the employee to a doctor and ensure the doctor is given 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.
C.4 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-dry the area.
Step 6 Apply a sterile waterproof dressing (such as an adhesive plaster), as necessary, and apply pressure through the dressing if bleeding is still occurring.
Step 7 Ensure that the employee is provided with immediate medical advice.
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

C.5 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.

C.6 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

D.1 Syringes are often not disposed of in a safe manner and are left where other people may be exposed to the risk of a needlestick injury. Employees 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.

D.2 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.

D.3 Employees 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

D.4 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).

D.5 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) from 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 at least one minute. Air-dry and replace tongs/tool in appropriate area for future use.

Benefit

D.6 The implementation of effective and safe handling and disposal procedures of syringes provides protection for employees or others at or near a 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

E.1 Employees should use the principles of standard precautions, and additional precautions to develop safe working procedures appropriate to their work. 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 employees, as it is in the health care setting where they are most often applied, but they are relevant to all situations in which employees are exposed to blood or other body substances, or materials contaminated with these.

E.2 Implementation of standard precautions is the primary strategy for successful control of infections relevant to all workplaces, and particularly in health services or 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
- people may be placed at risk of infection from those who are asymptomatic but infectious.

E.3 Standard precautions are intended to prevent infection by the following routes:

- percutaneous (cuts) and parenteral (injections)
- mucous membrane (splashes into the mouth)
- conjunctival (sprays into the eye)
- non-intact skin (contamination of a cut on the hand).

E.4 Conscientious use of these precautions will minimise the risk of employees acquiring infections and transferring infections between people.

E.5 All employees 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 substances, regardless of whether they contain visible blood or are dried.
E.6 That is, precautions must be applied in all relevant working situations, and to all people being treated, in order to protect employees from known and unknown blood-borne pathogens in people under their care or with whom they come into close contact.

E.7 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 substances, i.e. confining spills, splashes and contamination of the environment and employees 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.

E.8 Employers must ensure for all activities with potential for exposure that appropriate and adequate equipment such as gloves and aprons are 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 employees have a duty to follow agreed procedures.
Appendix F - Employees with Hepatitis B, Hepatitis C or HIV

General issues

F.1 It is essential that the confidentiality of staff be protected in all matters related to their Hepatitis and HIV status.

F.2 In non health care settings, employees who are HBV, HCV 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.

F.3 HBV, HCV or HIV positive employees should adhere to some general precautions to prevent transmission of the disease, most of which apply to all employees regardless of HBV, HCV or HIV status. These precautions include:

- covering any cuts or abrasions with waterproof dressings 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.

First aid

F.4 HBV, HCV or HIV positive employees 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 employees should not conduct invasive procedures while providing first aid. Where invasive procedures are required professional medical help should be sought.

Notification

F.5 The *Occupational Health and Safety (Commonwealth Employment) Act 1991* and related regulations require an employer to notify Comcare 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.

F.6 Under the *Occupational Health and Safety (Commonwealth Employment) Act 1991*, employees have an obligation to cooperate with their employer to help the employer comply with its 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.
References and Further Guidance

General


Immunisation

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

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

HIV/AIDS


Hepatitis C


Comcare


**Australian/New Zealand Standards**


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.*

State, Territory and Australian Government Authorities

**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

**Victorian Workcover Authority**
GPO Box 4306
Melbourne VIC 3001
Phone: 03 9641 1555
Fax: 03 9641 1222

**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

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](http://www.workcover.com)
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
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
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

Sports Medicine Australia
PO Box 237
Dickson ACT 2602
Phone: 02 6230 4650
Fax: 02 6230 5908
Email: smanat@sma.org.au

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

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