

## Human Life Sciences, Medicine, Nursing & Midwifery, Pharmacy, Psychology and Social Work

### **Health Sciences**

# Infection Control Student and Staff Guide





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#### 1. Introduction

This Guide is for students of Health Science courses who undertake professional experience placements (**placements**), work with patients in a health services environment; or who may encounter exposure-prone procedures in laboratory settings. It also serves as a resource for staff providing instruction and supervision.

The Guide is underpinned by UTAS policy and procedures accessible at: <a href="http://fcms.its.utas.edu.au/healthsci/healthsci/cpage.asp?lCpageID=469">http://fcms.its.utas.edu.au/healthsci/healthsci/cpage.asp?lCpageID=469</a> and supports the Health Science Safety in Practice Kit. It draws on excerpts from the Commonwealth of Australia's NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare, a very comprehensive document on health risks and appropriate precautions and highly recommended resource, accessible at: <a href="http://www.nhmrc.gov.au/node/30290.">http://www.nhmrc.gov.au/node/30290.</a>

Students may also be interested in the Victorian Government (2005) The Blue Book: Guidelines for the control of infectious disease, Communicable Diseases section. This document provides detailed guidelines for specific diseases: http://www.health.vic.gov.au/ideas/bluebook

Note- all websites listed in this document have been revised February 2011



#### 2. Duty of Care

The University of Tasmania (UTAS) has a duty of care towards both students and patients to prevent or minimise the risk of transmission of infectious or blood-borne diseases.

As a student, you also have a duty of care to prevent or minimise the risk of transmission of infectious or blood-borne diseases to and between patients.

#### All students have a responsibility to:

- Know what nosocomial infections are and understand the routes of transmission of infection;
- Comply with best practice infection control techniques, including standard and additional precautions;
- Practice recommended hand hygiene to prevent nosocomial transmission of infection;
- Understand and practice the principles of asepsis in performing procedures and know what to do in the event that aseptic technique is compromised;
- Be immunised against infectious diseases important in the health care setting and screened for tuberculosis according to the Health Science Infectious Diseases Guidelines and Procedures;
- Know their infectious status with respect to blood borne viruses and if positive to refrain from performing exposure-prone procedures;
- Know how to report and seek assistance in the event of exposure to blood and/or body fluids (needle stick injuries); and
- Understand and practice appropriate waste disposal including the disposal of sharps to minimise the risk of transmission of infectious diseases in health care settings.

Students are expected to access, read and adhere to occupational health and safety guidelines, including those for management of exposure to blood/body fluids (needle stick injuries), at each health care agency where they undertake a clinical placement. In the event of exposure during that placement, students are required to comply with the policies and procedures of the agency in the first instance and also to report the incident to their School.

#### 3. IMMUNISATION

The **Safety in Practice Kit** details the immunisation requirements for students.

In addition to course commencement requirements, <u>annual influenza vaccinations</u> are also highly recommended.

Students who have had significant exposure to <u>tuberculosis</u> should also undertake repeat screening ie Mantoux testing through their local TB clinic.



#### 4. STANDARD PRECAUTIONS

#### Reference:

NHMRC (2010) **Australian Guidelines for the Prevention and Control of Infection in Healthcare**, p.33 <a href="http://www.nhmrc.gov.au/b1-standard-precautions">http://www.nhmrc.gov.au/b1-standard-precautions</a>

It is essential that **standard precautions** are applied at all times because:

- People may be placed at risk of infection from others who carry infectious agents;
- People may be infectious before signs or symptoms of disease are recognized or detected, or before laboratory tests are confirmed in time to contribute to care;
- People may be at risk from infectious agents present in the surrounding environment including environmental surfaces or from equipment; and
- The risk of transmission increased with specific procedures and practices.

#### Standard precautions should be used in the handling of:

 blood (including dried blood) and all other body substances, secretions and excretions (excluding sweat), regardless of whether they contain visible blood, non-intact skin, and mucous membranes. See also Appendix 1.

#### Standard precautions consist of:

- Hand hygiene, before and after every episode of patient contact;
- The use of personal protective equipment;
- The safe use and disposal of sharps;
- Routine environmental cleaning;
- Reprocessing of reusable medical equipment and instruments;
- Respiratory hygiene and cough etiquette;
- Aseptic non-touch practices;
- Waste management; and
- Appropriate handling of linen.



#### **4.1 HAND HYGIENE**

#### Reference:

NHMRC (2010) **Australian Guidelines for the Prevention and Control of Infection in Healthcare**. p.34 <a href="http://www.nhmrc.gov.au/b1-standard-precautions">http://www.nhmrc.gov.au/b1-standard-precautions</a>

Hand hygiene is the most important and most basic technique to prevent the spread of infection.

'Hand hygiene' has come to replace terms such as 'handrub' and 'handwash'. Hand hygiene, using alcohol-based gel, is more effective against the majority of common infectious agents than hand hygiene with plain or antiseptic soap and water. Plain soaps aid in the in mechanical removal of microorganisms and have no antimicrobial activity; They are sufficient for general social contact and for cleansing of visibly soiled hands. Soaps are also used for mechanical removal of certain organisms such as *C. difficile* and norovirus.

You will become aware of **The 5 Moments for Hand Hygiene** approach. This approach defines the key times when healthcare workers need to perform hand hygiene:

- 1. before touching a patient;
- 2. before clean/aseptic procedures;
- 3. after body fluid exposure/risk;
- 4. after touching a patient; and
- 5. after touching a patient's surroundings.

Alcohol gels are available in all hospital wards and should be used for each of The 5 Moments for Hand Hygiene.

Apply alcohol gel to all surfaces of the bands for a minimum of 15 seconds

Ensure that all skin surfaces are accessible

Ensure that your nails are clean, short and unvarnished.

Hands carry two different types of flora: resident and transient.

**Resident Flora**: These organisms live and multiply on the skin (mainly on superficial layers, but 10-20% inhabit deep layers) and can be repeatedly cultured, even after routine hand hygiene.

**Transient Flora**: These organisms are present in the hospital microenvironment and contaminate the hands of all staff during normal work activities. They can be readily passed on to another person during contact and will survive on the hands for up to 24 hours act if not removed by hand hygiene.

You are referred to the website www.hha.org.au

Here you will find another highly recommended resource:

Grayson, L., Russo, P., Ryan, K., Bellis, K., Havers, S., Heard, K., & Simpson, P. (Eds.) (2009) **Hand Hygiene Australia Manual**. Australian Commission for Safety and Quality in Healthcare and World Health Organisation.

You will also find a learning package on hand hygiene:

http://www.hha.org.au/LearningPackage/medicallearningpackage.aspx

It is strongly recommended that you complete the learning package and include the Certificate of Completion in your portfolio.



#### 4.2 Personal Protective Equipment (PPE)

#### Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare, p.46 <a href="http://www.nhmrc.gov.au/b1.2-personal-protective-equipment">http://www.nhmrc.gov.au/b1.2-personal-protective-equipment</a>

Personal Protective Equipment (PPE) provides a barrier between the source and the operator. Its use does not negate the need for safe work practices or hand hygiene.

Selection of personal protective equipment must be based on assessment of the risk of transmission of infectious agents to the patient or carer, and the risk of contamination of the clothing or skin of healthcare workers or other staff by patients' blood, body substances, secretions or excretions.

- Factors to be considered are:
  - probability of exposure to blood and body substances;
  - type of body substance involved; and
  - probable type and probable route of transmission of infectious agents.

Assess the risk of spraying or splashing in the specific situation and choose appropriate PPE. Before putting on PPE explain to the patient that it is a routine part of infection prevention and control.

#### **GLOVES**

Gloves must be worn as a single-use item for:

- each invasive procedure;
- contact with sterile sites;
- contact with non-intact skin or mucous membranes;
- activity that has been assessed as carrying a high risk of exposure to blood, body substances, secretions and excretions;

Types of gloves worn should be appropriate to the task:

- Sterile gloves for aseptic procedures contact with sterile sites;
- Non sterile examination gloves to be used for all other contacts, and
- *General-purpose utility gloves* to be used for cleaning and during manual decontamination of used instruments and equipment.

Gloves must be changed after every episode of individual patient care and between patients.

Note: Allergy or sensitivity may develop to glove powder or contact with latex. If you have a sensitivity or allergy to latex, inform your supervisor and ensure you use an alternative glove type. Powder-free latex gloves or alternatives to latex are available.

#### GOWNS

International guidelines recommend that apron or gown be worn by all healthcare workers when:

- close contact with the patient, materials or equipment may lead to contamination of skin, uniforms or other clothing with infectious agents; or
- there is a risk of contamination with blood, body substances, secretions or excretions (except sweat).

The type of apron or gown required depends on the degree of risk, including the anticipated degree of contact with infectious material and the potential for blood and body substances to penetrate



through to clothes or skin. Gowns and aprons must be changed between patients.

A clean non-sterile apron or gown is generally adequate to protect skin and prevent soiling of clothing during procedures and/or patient-care activities that are likely to generate splashing or sprays of blood or body substances;

- A fluid-resistant apron or gown should be worn when there is a risk that clothing may become contaminated with blood, body substances, secretions or excretions (except sweat).
- A plastic apron can be worn beneath a sterile gown to give added protection if strikethrough is a possibility during surgical procedures.

#### PROTECTIVE EYEWEAR

Procedures that generate splashes or sprays of blood, body substances, secretions or excretions require either a face shield, or a mask worn with protective eyewear.

Eyewear should be close fitting and shielded at the sides.

Equipment should be decontaminated after use.

#### **MASKS**

Surgical masks are loose fitting, single-use items that cover the nose and mouth. They are used as part of standard precautions to keep splashes or sprays from reaching the mouth and nose of the wearer. They also provide some protection from respiratory secretions.

Single-use surgical masks are different from other masks that are used as 'additional precautions' ie. P2 respirator, N95 respirator, respiratory protection device, and the particulate respirator

#### 4.3 ASEPTIC PRACTICES

#### Reference:

NHMRC (2010) **Australian Guidelines for the Prevention and Control of Infection in Healthcare**, p.85 <a href="http://www.nhmrc.gov.au/b1.7-aseptic-technique">http://www.nhmrc.gov.au/b1.7-aseptic-technique</a>

Aseptic practices protect patients during invasive clinical procedures by employing infection control measures that minimise, as far as practicably possible, the presence of pathogenic microorganisms.

Aseptic practices are indicated if performing any invasive procedure, for example:

- Surgical procedures;
- Dressing open wounds; and
- Insertion of indwelling cannulae/catheters.

Measures employed to achieve asepsis include:

- Performance of appropriate hand hygiene;
- Preoperative skin and body cavity preparation;
- Supply and storage of sterile equipment;
- Antiseptic and disinfectant use;
- Management of indwelling devices; and
- Environmental controls such as air filtration.



<u>Specimens should be collected</u> with gloved hands, placed in a correctly labeled leak proof container, enclosed in a sealed bag for transport with the request form in the outer sleeve pocket of the plastic bag to prevent contamination.

It is imperative that **before you commence clinical placement** you are familiar with aseptic practices, the Australian guidelines and the resources available to assist you in your learning (as outlined in this document).

#### 4.4 SAFE HANDLING & DISPOSAL OF POTENTIALLY INFECTIOUS MATERIAL

#### WASTE DISPOSAL

#### Reference:

NHMRC (2010) **Australian Guidelines for the Prevention and Control of Infection in Healthcare,** p.89 <a href="http://www.nhmrc.gov.au/b1.8-waste-management">http://www.nhmrc.gov.au/b1.8-waste-management</a>

When handling waste, apply Standard Precautions to protect yourself and others against exposure to blood and body substances.

Segregation of waste should occur at the point of its generation. Waste should be contained in the appropriate receptacle (identified by colour and label) and disposed of according to the facility waste management plan. Ensure you understand the correct procedures for waste handling or ask your supervisor.

#### **DISPOSAL OF SHARPS**

#### Reference:

NHMRC (2010) **Australian Guidelines for the Prevention and Control of Infection in Healthcare**, p.62 <a href="http://www.nhmrc.gov.au/b1.3-handling-and-disposing-sharps">http://www.nhmrc.gov.au/b1.3-handling-and-disposing-sharps</a>

#### The person generating the sharp is responsible for its safe disposal.

Disposal should occur immediately following its use and at the point of use into designated puncture resistant containers that conform to Australian Standard AS4031.

Standard measures to avoid sharps injuries include handling sharp devices in a way that prevents injury to the user and to others who may encounter the device during or after a procedure. Some examples are:

- Never pass a sharp by hand to another person; use a basin or neutral zone;
- Use instruments, rather than fingers, to grasp needles, retract tissue, and load/unload needles and scalpels;
- Make a verbal announcement when passing sharps;
- Use round-tipped scalpel blades instead of pointed sharp-tipped blades; and
- Never recap used needles unless an approved recapping device is used.

Sharps containers should be sealed for disposal when 2/3 full.



#### 4.5 Environmental controls

Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare. p.68

http://www.nhmrc.gov.au/b1.4-routine-management-physical-environment

Prompt removal of spots and spills of blood or body substances followed by cleaning and disinfection of the contaminated area is sound infection control practice and meets occupational health and safety requirements. Appropriate PPE should be worn at all times.

A neutral detergent is the cleaning solution of choice for environmental surfaces. Extra cleaning may be necessary in the presence of some micro-organisms.

Strategies for decontaminating spills of blood and other body substances (e.g. vomit, urine) vary according to volume and the setting in which they occur. In patient-care areas, healthcare workers can manage small spills by cleaning with detergent solution.

For spills containing large amounts of blood or other body substances, workers should contain and confine the spill by:

- removing visible organic matter with absorbent material (e.g. disposable paper towels);
- removing any broken glass or sharp material with forceps; and
- soaking up excess liquid using an absorbent clumping agent (e.g. absorbent granules).

#### **SOILED LINEN**

Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare, p.90.

http://www.nhmrc.gov.au/b1.9-handling-linen

#### All linen is considered contaminated therefore minimal handling is recommended.

All used linen should be handled with care to avoid dispersal of microorganisms into the environment and to avoid contact with staff clothing. The following principles apply for linen used for all patients (i.e. whether or not transmission-based precautions are required):

- Appropriate PPE is to be worn during handling of soiled linen to prevent skin and mucous membrane exposure to blood and body substances;
- Used linen is 'bagged' at the location of use into an appropriate laundry receptacle;
- Used linen must not be rinsed or sorted in patient-care areas, or washed in domestic washing machines;
- Linen soiled with body substances should be placed into leak-proof laundry bags for safe transport;
- Any linen bags likely to leak blood or body fluid must be contained by a clear plastic bag and secured prior to transport. Alternatively waterproof linen bags should be used; and
- Linen bags, when 2/3 3/4 full must be securely tied for transport.



#### 5. NOSOCOMIAL INFECTIONS

Nosocomial infections are those acquired directly or indirectly in a medical setting.

The probability of a microorganism causing infection in a host is dependent upon the dose (number of microorganisms), a susceptible host site in contact with the organism, time of contact (sufficient for multiplication or not) and the virulence of the organism.

#### SOURCE

The source(s) of the infecting agents may be patients, staff or visitors and may include:

- Persons with acute diseases;
- Persons in the incubating or window period of a disease;
- Persons who are colonised or chronic carriers of the infecting agent;
- The person's own endogenous flora; or
- Inanimate objects, including equipment and medications.

**Susceptible Host**: Resistance to infection varies depending upon underlying medical conditions and other factors that compromise a person's immune status. Trauma, surgical procedures, anaesthesia, invasive indwelling devices, therapeutic and diagnostic procedures increase susceptibility to infection.

*Immunocompromised* patients are at increased risk of infection from both their own flora (endogenous) as well as other sources (exogenous). Susceptibility to infection depends on the severity and duration of immunosuppression. They may be particularly susceptible to environmental contaminants such as Legionnaires disease or Aspergillus. Where invasive medical procedures are involved, consideration should be given to placing patients at the start of the operating schedule. If considerable immunosuppression or neutropenia is present, the Additional Precaution of single room accommodation is desirable.

#### **ROUTES OF TRANSMISSION**

Direct contact	Transmission involves direct physical transfer of microorganisms from an infected
	or colonised person to a susceptible host. Indirect contact transmission involves
	the contact of a susceptible host with a contaminated inanimate object, such as

contaminated instruments or equipment.

**Droplet** Transmission is generated during coughing, sneezing, talking, and during certain

procedures such as suctioning and bronchoscopy. Transmission occurs when droplets containing microorganisms come in contact with the conjunctiva, nasal or buccal mucosa of a susceptible person. Droplet distribution involves close

association, usually 1 metre or less.

Airborne Transmission occurs by dissemination in the air of either droplet nuclei or dust

particles containing the infectious agent. Microorganisms carried in this manner can be widely dispersed via air currents and can remain airborne for long periods

before being inhaled by the susceptible host.

Vehicle Transmission applies to microorganisms transmitted by contaminated food,

water, drugs, blood or body fluids.

**Vectorborne** Transmission occurs through mosquitoes, flies, rats or other vermin.



#### **6. Additional Precautions**

Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare, p.133-153.

http://www.nhmrc.gov.au/b4-applying-standard-and-transmission-based-precautions-during-procedures

#### Additional Precautions are always in addition to Standard Precautions.

Additional Precautions are specific to the situation and type of transmission. Transmission-based precautions are applied to patients suspected or confirmed to be infected with agents transmitted by the contact, droplet or airborne routes.

- Airborne transmission (eg tuberculosis, measles, chickenpox, pandemic influenza);
- Droplet transmission (eg mumps, rubella, seasonal influenza, pertussis);
- Contact transmission (eg MRSA, Clostridium difficile);
- Any combination of the above routes; and
- Immunocompromised patients.

The combination of measures used in transmission-based precautions depends on the route(s) of transmission of the infectious agent involved:

- Continued implementation of standard precautions;
- Use of appropriate PPE (likely to include gloves, apron/gown, surgical or other masks/respirators, face or eye protection);
- Patient-dedicated equipment;
- Single rooms or patient cohort rooms;
- Appropriate air handing;
- Enhanced cleaning and disinfection of the patient environment; and
- Restricted transfer of patients within and between facilities.

It is imperative that you familiarize yourself with the local protocols and procedures at each of your host agencies.



#### 7. EXPOSURE PRONE PROCEDURES (EPP)

Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare, pp.179-184.

http://www.nhmrc.gov.au/b5.3-exposure-prone-procedures

The blood and body substances of all patients are to be considered potential sources of infection, regardless of diagnosis or perceived risk. All students must be aware of how to prevent exposure to blood or body fluids. During EPP, there is an increased risk of transmitting blood borne viruses between health care workers and patients.

In order to carry out or participate in exposure prone procedures, you:

- Have an ethical duty to be aware of your immunity or infectious status to ensure that you do not place yourself or others at risk of infection.
- b. Have an ethical duty to seek follow-up and/or regular testing and counselling if you engage in at-risk behaviour and/or suspect that you may have been infected with a blood-borne virus during your course.
- c. Are required to arrange testing for blood-borne viruses to determine your status as soon as practicable after enrolment and prior to your first clinical placement.

Students infected with blood-borne viruses <u>must</u> exclude themselves from performing exposureprone procedures (EPP). Refer to the Safety in Practice Kit or <a href="http://fcms.its.utas.edu.au/healthsci/healthsci/cpage.asp?ICpageID=469">http://fcms.its.utas.edu.au/healthsci/healthsci/cpage.asp?ICpageID=469</a>

Students should also be aware of local legal requirements. All students should review the 2010 Australasian Society for HIV Medicine, **Guide to Australian HIV Laws and Policies for Healthcare Professionals**. This resource includes the *Tasmanian HIV/AIDS Preventive Measures Act 1993* at: <a href="http://www.ashm.org.au/HIVLegal/Default.asp?PublicationID=2">http://www.ashm.org.au/HIVLegal/Default.asp?PublicationID=2</a>

EPP are categorised according to the level of risk of transmission in increasing order of magnitude:

- Category 1 A procedure where the hands and fingertips of the healthcare worker are usually visible and outside the body most of the time and the possibility of injury to the worker's gloved hands from sharp instruments and/or tissues is slight. This means that the risk of the healthcare worker bleeding into a patient's open tissues should be remote, e.g. insertion of a chest drain.
- Category 2 A procedure where the fingertips may not be visible at all times but injury to the healthcare worker's gloved hands from sharp instruments and/or tissues is unlikely. If injury occurs it is likely to be noticed and acted upon quickly to avoid the healthcare worker's blood contaminating a patient's open tissues, e.g. appendicectomy.
- Category 3 A procedure where the fingertips are out of sight for a significant part of the procedure, or during certain critical stages and in which there is a distinct risk of injury to the healthcare worker's gloved hands from sharp instruments and/or tissues. In such circumstances it is possible that exposure of the patient's open tissues to the healthcare worker's blood may go unnoticed or would not be noticed immediately, e.g. hysterectomy.



#### 7.1 Preventing blood and body fluid exposure

Students need to use standard precautions where there is a risk of blood or body fluid exposure and implement safe working practices such as:

- Demonstrate an understanding of the principles of standard and additional precautions;
- Use PPE and other precautionary strategies as applicable;
- Safely handle and dispose of sharps;
- Safely handle and transport specimens#;
- Safely handle and dispose of waste;
- Use of standard precautions for environmental cleaning;
- Use of standard precautions for cleaning blood and body substance spills; and
- Safely handle and appropriately clean reusable instruments.

Review again the checklist of standard precautions for procedures:

http://www.nhmrc.gov.au/b4.4.1-checklist-standard-precautions-procedures

#### 7.2 MANAGEMENT OF BLOOD & BODY FLUID EXPOSURE

#### Decontaminate the exposed area and treat the wound:

- a. *Skin*: wash with soap and water or a skin disinfectant product. DO NOT use caustic agents such as bleach as they may compromise skin integrity.
- b. Mouth, nose, eyes: rinse well with water or saline.
- c. Wound: treat as appropriate (e.g. suturing, dressing).

**Report the exposure** within 48 hours to the local Medical Practitioner or Approved Health Care Worker supervising the placement so that appropriate investigations and treatment are promptly initiated.

#### Test the source for HBV, HCV, HIV

The source individual may be tested for HIV antibody, Hepatitis B surface antigen and/or Hepatitis C antibody.

<u>Informed consent and both pre & post-test counselling</u> are required for these investigations. This is the responsibility of the attending Medical Practitioner. The results are confidential between practitioner and source individual.

If the source individual **does not consent** to have tests taken, the affected person is to be followed up as if the source was unknown.

If the source is known or suspected to be HIV positive, *the on-call Infectious Diseases Physician must be contacted urgently* for advice.

If the source is HIV positive, post-exposure prophylaxis with antiretroviral therapy may be offered (at no cost) when the risk of transmission is considered to be significant. This needs to be commenced as soon as possible after the exposure (and certainly within 72 hours).

Counselling will be provided by the local Occupational Health officer or ID physician on the risk of transmission, the importance of strict compliance with the treatment regimen and the potential side effects and appropriate course of action if these are experienced. The student must be advised to practice safe sex until tests results are received and the patient's risk history has been reviewed.



#### Assess risk of transmission of infection to the exposed student

The risk of a student getting a disease from a blood or body fluid exposure depends on the type of injury, the type of body fluid and whether the source has infective blood.

An exposure that might place the student at risk for HIV infection is defined as a percutaneous injury (e.g. exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other body fluids that are potentially infectious.

In addition to blood and visibly bloody body fluids, semen and vaginal secretions have been implicated in the sexual transmission of HIV; however they have not been implicated in occupational transmission from patients to health professionals.

The following fluids also are considered potentially infectious: cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluid. The risk of transmission of HIV infection from these fluids is unknown.

The risk for transmission of HIV infection from the following fluids and materials is very low: Faeces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they are visibly bloody.

#### Initiate treatment according to risk

Treatment will be considered if it is anticipated that the source's blood results will not be available within 24 hours and the source patient is likely to be HIV positive, or in the window period. PEP for HIV can be considered if the exposure was a high risk injury from an unknown source. When the test results become available, ongoing treatment may be reassessed.

**Test the exposed student** for HIV, HBV and HCV antibody levels and LFTs if the source is unknown. Post-exposure prophylaxis (PEP) may be considered. (This will be considered in light of history, actual exposure and perceived risks).

Urgent testing and results from the laboratory may not be available over public holidays and weekends. Therefore it is essential that the student has a record of their Hepatitis B immunity.

Baseline tests for HIV, HBV and HCV antibody levels & LFTs establish the immune status or previously acquired infection of the student. If HBV prophylaxis is required, for Hep B IgG to be effective it is critical that the exposed student commences this within 48 hours of the incident.

Confidentiality of the student's status is to be maintained within privacy and public health guidelines. In order to protect confidentiality, students may choose to have these tests performed by a different service (e.g. emergency department, general practice, sexual health).

If the source HBV result will not be available within 24-48 hours, and if the student HBV status is not documented, then consider, with the student's consent:

- Hepatitis B immunoglobulin
- Hepatitis B vaccine (1<sup>st</sup> dose)
- ADT (adult diphtheria and tetanus) if necessary

Refer to an Infectious Disease Consultant if the exposure is high risk or you have any concerns.



#### 7.3 FOLLOW-UP FOR EXPOSURE TO BLOOD AND BODY FLUIDS

Follow-up and appropriate care is required for:

#### **Possible Parenteral Exposure:**

- Intradermal injury with a needle contaminated with blood or body fluid;
- A wound not associated with visible bleeding produced by an instrument contaminated with blood or body fluid;
- Old wound or skin lesion contaminated with blood or body fluid; and
- Mucous membrane or conjunctival contact with blood.

#### **Definite Parenteral Exposure:**

- Laceration or similar wound which causes bleeding and is produced by an instrument that is visibly contaminated with blood or body fluid;
- Any direct inoculation with human immunodeficiency virus (HIV) tissue or material likely to contain HIV, Hepatitis B virus (HBV) or Hepatitis C virus (HCV) not included above. This refers to accidents in laboratory settings.

#### **Massive Exposure:**

- Transfusion of blood, injection of large volume of blood/body fluids (>1ml);
- Parenteral exposure to laboratory specimens containing high titre of virus.

#### 8. Duty of Care – Reporting & contacts

Should you have a placement-related accident with risk of infection, you must report it immediately to your Clinical Supervisor:

- 1. In a hospital setting it is likely that you will be referred to the Infection Control Unit or Occupational Health and Safety Officer
- 2. Outside of a hospital setting, your Clinical Supervisor will advise you on local requirements and protocols.

In all instances, your UTAS unit coordinator or placement supervisor must also be notified and relevant documentation completed. <a href="http://www.admin.utas.edu.au/hr/ohs/pol\_proc/exposure.pdf">http://www.admin.utas.edu.au/hr/ohs/pol\_proc/exposure.pdf</a>

**Counselling** can be arranged through the UTAS OH&S Unit on 6226 7535 or UTAS Counselling Service on 6223 1138.

Security services and numbers can be accessed at:

http://www.students.utas.edu.au/ data/assets/pdf file/0014/6602/Safety brochure all students revised2Arial.pdf

In emergency health situations you may also access assistance from UTAS Security on 6226 7600 (South) or 6324 3336 (North/NorthWest).



#### APPENDIX 1

#### CHECKLIST OF STANDARD PRECAUTIONS FOR PROCEDURES.

#### Reference:

NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia, p.33.

Procedure	Hand hygiene	Gloves	Sterile gloves	Surgical mask	Eye protection	Gown
Activities of daily living	✓	_	_	_	_	_
Routine observations (e.g. blood pressure measurement)	1	_	_	_	_	_
General medical examination	1	For contact with broken skin/ rash/ mucous membrane	_	If splash risk likely	If splash risk likely	If splash risk likely
Wound examination/dressing	1	For contact with body substances	For direct contact with wound	For wound irrigation if splash likely	For wound irrigation if splash likely	For grossly infected wounds
Blood glucose and haemoglobin monitoring	1	1	_	_	_	_
Vaginal delivery	✓	_	✓	_	✓	✓
Intravenous cannula insertion	1	<b>→</b>	_	_	If splash risk likely	_
Intravascular access device insertion	1	_	1	•	✓	(Where max. barrier precautions used)
Intravascular access device care	✓	_	✓	_	_	_
Surgical aseptic technique procedure (e.g. lumbar puncture)	1	_	1	1	1	✓
Insertion of urinary catheter	1	_	1	If exposure risk likely	If exposure risk likely	If exposure risk likely
Urinary catheter care	1	1	-	-	When emptying drainage bag	If exposure risk likely
Suctioning: endotracheal tube, tracheostomy	1	_	Dominant hand (open suction system)	1	<b>√</b>	If exposure risk likely
Major dental procedures*	1	<b>≠</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>→</b>
Routine intra-oral dental procedures	1	•	_	1	<b>*</b>	If exposure risk likely

<sup>\*</sup> Including most dental implants, surgical removal or exposure of completely impacted teeth or tooth fragments, vital endodontics, surgical periodontics, maxillo-facial surgery.