# Occupational Bio-Hazard Exposure Management Procedure

Effective: 11 March 2019

## 1. Guiding Principles

1.1 Occupational exposure (OE) is defined as an incident occurring in the workplace which involves contact with blood or body fluids, putting the employee at risk of acquiring a blood borne virus (BBV). This document provides guidance on management of WA Country Health Service (WACHS) Midwest employees who sustain a workplace OE.

1.2 This document is to be read and used in conjunction with the WA health system Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting.

1.3 WACHS Midwest Health Care Facilities (HCF) encourages reporting all blood and body fluid exposures in a non-punitive manner. Analysis of the OE will take place and strategies implemented to reduce the risk of OE.

1.4 All employees in the WACHS Midwest are expected to adhere to standard infection control practices, utilisation of personal protective equipment (PPE) and safety engineered medical devices (SEMDs) to minimise the risk of OEs.

1.5 Employees are risk assessed on commencement of employment for immunity to and offered immunisation against vaccine preventable diseases on employment. They are to be informed of their immune status.

## 2. Procedure

2.1 Follow the OE Management Flow chart (Appendix 3)

2.2 The Infection Control Department (IC) in conjunction with the recipient's manager and/or Hospital Coordinator (HC) are to coordinate the management of the OE.

2.3 Should the recipient incur any invoices in relation to the testing and treatment of the OE, they are to provide them to their line manager who is to forward to WACHS Midwest Finance Department in liaison with the WACHS Midwest Occupational Safety and Health Unit (OSH).

## 3. Definitions

As per the WA health system Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting

| | |
|---|---|
| **Recipient** | The person who is exposed to another person's blood or body fluids. |
| **Source** | The person that the blood or body fluids originated from. |
| **Occupational Exposure** | An incident that occurs in the course of a person's work and involves contact with blood or body fluids that places them at risk of acquiring a BBV. |
| **Sharp** | Any object capable of inflicting a penetrating injury. |

# 4. Roles and Responsibilities

## 4.1 Management of the recipient

4.1.1 The employee exposed to bio-hazard is to immediately obtain first aid.

4.1.2 Wash the wound or skin thoroughly with soap and water or use a waterless cleanser or antiseptic when water is unavailable. Apply a waterproof dressing if necessary, and apply pressure through the dressing if still bleeding. Do not squeeze or rub the injury site.

4.1.3 Contamination of mucous membrane: Rinse the eyes gently but thoroughly (remove contact lenses), for at least 30 seconds, with water or normal saline. If blood or body fluids are sprayed into the mouth, spit out and then rinse the mouth with water several times**.** Do not use Alcohol-based products on eyes or mucous membranes.

4.1.4 Remove any contaminated clothing and shower if necessary.

4.1.5 Should the skin become contaminated regardless of cuts or abrasions wash well with soap and water.

4.1.6 Report to department manager or the HC immediately following first aid for additional support and to ensure risk assessment and follow-up can be undertaken in a timely manner. The manager will assign transfer of care for allocated patients.

4.1.7 Present to the Emergency Department (ED) where you will be assessed according to exposure risk and if post exposure prophylaxis (PEP) is required. The ED has Biohazard Exposure packs for use that includes appropriate risk assessment, pathology and OHS forms.

4.1.8 The recipient may choose to go to their own GP for medical review, however, in order to ensure timely access to assessment and/or prophylaxis, you must emphasise the requirement for urgent medical review

4.1.9 The relevant OSH and IC forms must be completed and submitted after the event to ensure follow up occurs. Forms completed online will go directly to OHS (see reference list at end of document). Completed hard copy forms are to be returned to IC, who will process documentation and forward to OSH as required. OE forms are accessible in the pack (found in ED) in hard copy with the appropriate links available on the front of the pack. Documentation should be complete within 24- 48 hours post exposure.

## 4.2 Management of Source

4.2.1 The Medical Practitioner (MP) treating the source should be contacted to obtain source consent and bloods (appropriate pathology forms are located in the Biohazard Exposure Pack) if the MP differs from that of the recipient. The MP must ensure appropriate bloods are taken to establish the status of Hepatitis B, Hepatitis C and HIV. Pre-test discussion and explain the need for further testing should the source return a positive result.

It should be discussed with the source that all pathology results will be sent to their GP for follow up. In addition, all BBV's are notifiable according to the Department of Health. The treating team will liaise with Infection Control to ensure that the relevant notification form is completed and sent to the local Public Health Unit.

4.2.2 Verification that the tests have been completed is to be documented in the patient medical records and verbally handed over to IC staff.

**Source negative for BBV**: further testing is generally not required.

**Source positive for BBV**: if the source is known BBV positive and is not already in the care of an appropriate medical specialist, referral by the treating MP is required or follow up by nominated GP as in 4.2.1

**Source likely to be positive for BBV**: if the sources medical and social history indicates involvement in high risk behaviours for BBV infection and/or is suspected to be in the "window period" for a BBV, appropriate counselling and referral is required for follow-up at 6 and 12 weeks to ascertain whether or not they develop a BBV.

**Source unknown or unable to be tested**: historical and epidemiological assessment is required to determine the probability of the source being positive for a BBV. This includes evaluating the type of exposure, contamination of the cause of the exposure with blood or body fluid (e.g. type of needle, scalpel blade) and the likelihood the source is positive for BBV. If deemed high risk, then the HCW is to be managed in accordance with a source positive approach.

4.2.3 In the event of a positive result to the source post screening, the treating MP is required to notify the source and refer to and appropriate physician for treatment, and counselling.

4.2.4 Testing of needles or other sharp objects implicated in an exposure is not recommended. The reliability of findings in such circumstances is unknown and poses additional risks to the persons handling them.

### 4.3 Line manager / Hospital Coordinator

4.3.1 The recipients' line manager or the HC will ensure the exposed staff member has presented to ED and the OE process has been followed**.**

4.3.2 Assist recipient to complete Part A of the WACHS Safety Risk Report Form in line with the WACHS Occupational Safety and Health Procedure. Paperwork is to be completed by relevant parties and returned to IC within 24 - 48 hours post incident.

4.3.3 Conduct and incident investigation (in conjunction with the OHS representative).

### 4.4 Triage Nurse

4.4.1 Register the recipient into ED, ETS or contact Dr on call as per triage code.

4.4.2 Perform risk assessment of the recipient according to Appendix 2 to determine the need for treatment and PEP. If the exposure is moderate to high risk the recipient should be offered PEP within two hours of exposure.

If the recipient is exposed to a positive or unknown source, further risk assessment and counselling is required by the MP as a matter of urgency.

**Key information to consider:**

- The type and volume of body substance
- The length of time in contact with blood or body fluids
- The time elapsed since exposure.

**Following a sharps injury**:

- The presence of visible blood or body substance on the device causing the injury
- The type of device involved i.e. hollow-bore needle or solid sharp object
- The procedure for which the device was used
- The gauge of the needle or device
- The time elapsed since use of device
- Injury was through a glove or clothing.

4.4.3 There is a requirement that the exposed HCW is reviewed by a MP.

4.4.4 Relevant OE forms are required to be completed in order to process and follow up exposures. These are available in Biohazard Exposure Packs in the ED.

### 4.5 Medical Practitioner

4.5.1 The treating MP is responsible for the medical management and treatment of the recipient and to contact the MP of the source for source management.

4.5.2 Perform risk assessment of the recipient as per Appendix 2 and need for PEP. Determine recipient immunisation status for HBV as part of the risk assessment.

4.5.3 Ensure that pre-test consultation and counselling for BBV testing has occurred i.e. HIV, Hepatitis B and Hepatitis C and ensure consent Forms for the recipient and source are complete. Arrange for blood testing of the recipient and source. Refusal by the recipient and/or source for BBV testing is to be documented.

4.5.4 Blood for recipient screening must be taken prior to administration of any immunoglobulin, vaccine or PEP.

4.5.5 If the exposure has occurred on a patient during anaesthetic, check theatre consent form for pre signed consent to BBV testing.

4.5.6 When written or verbal consent is unable to be obtained, attempts should be made to obtain consent from the next-of-kin. Delayed testing of source is not ideal but should be considered if consent cannot be obtained at the time of the incident.

4.5.7 Where the source is a neonate or infant it is preferable to collect blood from the mother.

4.5.8 The treating MP is to complete WorkCover WA 1st certificate of capacity and send to OSH office for claim lodgement

4.5.9 If the OE is classified as high risk, advice from an Infectious Disease Specialist must be obtained prior to prescribing and administering PEP. Consider referral to a counselling service such as the Employee Assistance Program. A subsequent appointment should be arranged or referral to recipients own GP. PEP is to be offered within two hours of exposure to known or suspected high risk source.

4.5.10 Refer to WA health system Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting for recommended PEP and further tests required post prophylaxis treatment.

4.5.11 When the source is confirmed negative on baseline testing for BBV, the recipient is to be offered follow up serology for HIV, Hep C and Hep B (if not immune) testing at three months for reassurance. No further follow up of the source is required. No behavioural or work practice modifications are required by the recipient.

4.5.12 In the event of a positive result to the recipient at any stage in the process, the treating MP is required to contact the recipient and arrange treatment, counselling and referral to appropriate physicians with expertise in BBV.

4.5.13 When the original treating MP is unavailable the RMD is to be informed and utilised for consultation of any exposures. The RMD is responsible for appropriate referral and transfer of care when necessary

4.5.14 A copy of the discharge summary is to be sent to the recipient's GP.

### 4.6 Infection Control

4.6.1 Check all forms, particularly the details of Source and Recipient. Follow up any missing documentation with recipient.

4.6.2 Liaise with RMD for additional medical advice and transfer of care if required.

4.6.3 IC will inform the recipient of negative screening results. It is the responsibility of the recipient to ensure tests are complete as requested.

4.6.4 When the source is confirmed negative on baseline testing for BBVs, the recipient will be offered follow up serology testing at 3 months.

4.6.5 If the recipient, on baseline testing is found to be non-immune for HBV, a review of the recipient's hepatitis B vaccination status is to be undertaken.

4.6.6 Enter data into HISWA database and record statistics for tabling at IC National Standard 3 meeting and OSH meeting.

### 4.7 Occupational Health and Safety

Upon receipt of a Safety Risk Report, WACHS- Midwest OHS Department is to review safety issues surrounding the incident and assist managers to mitigate the risk of the incident occurring to other staff. The recipient is required to liaise with OHS to report and complete safety risk forms and Workers' Compensation documentation for claim management.

## 5. Compliance

Failure to comply with this policy document may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the Employment Policy Framework issued pursuant to section 26 of the Health Services Act 2016 (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

## 6. Evaluation

All OE data is to be analysed and collated by WACHS Midwest OSH Department.

OE data is reported by the HCF to Healthcare Infection Surveillance Western Australia (HISWA) by the Infection Control department.

OE data is reported to the Regional Patient Safety and Quality Committee.

## 7. Standards

Safety and Quality Health Service Standards – Standard 3

**3.7.1** A workforce immunisation program that complies with current national guidelines is in use.

**3.7.2** Infection prevention and control consultation related to occupational health and safety policies, procedures and/or protocols are implemented to address: occupational management and prophylaxis.

## 8. Relevant Legislation

Western Australia *Occupational Safety and Health Act 1984* and Occupational Safety and Health Regulations 1996.

## 9. References

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

The information is based on the following documents, which are to be fully read to provide complete information and guidance for management.

WA health system Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting

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

- Part B 1.3 Handling and Disposal of Sharps
- Part C 2.6 Occupational Hazards for Healthcare Workers

## 10. Related Forms

Please refer to the WACHS Workers compensation intranet page - Workers compensation Package for:

Safety risk report form

Workers Compensation claim form 2B

WorkCover WA 1st certificate of capacity

Witness statement

## 11. Related WACHS Policy Documents

WACHS Hazard-Incident Management Procedure

## 12. Related WA Health System Policies

Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting

Policy for Health Care Workers known to be Infected with Blood-borne Viruses - OD - 0394/12

Protocol For Non-Occupational Post-Exposure Prophylaxis (NPEP) To Prevent HIV In Western Australia - OD - 0077/07

## 13. Policy Framework

Public Health Policy Frameworks

## 14. Appendices

**Appendix 1** - Specialist advice contact details
**Appendix 2 -** Risk assessment and classification of occupational health exposures
**Appendix 3 -** Bio-Hazard Management Flowchart

**This document can be made available in alternative formats on request for a person with a disability**

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|---|---|---|---|
| **Contact:** | CNS Infection Control (M. Pirrottina) | | |
| **Directorate:** | Nursing and Midwifery Services | **TRIM Record #** | ED-CO-14-7127 |
| **Version:** | 3.00 | **Date Published:** | 12 March 2019 |

**Appendix 1 - Specialist advice contact details:**

Infectious Diseases Physician must be consulted prior to the administration of Post-Exposure Prophylactic Therapy.

| HOSPITAL | TELEPHONE NUMBER |
|---|---|
| Royal Perth Hospital<br>Clinical Immunology<br><br>Clinical Nurse Specialist<br><br>Page on call Immunology Registrar | <br><br><br>08) 9224 2899 (Monday-Friday)<br><br>(08) 9224 2244<br>(Weekends, public holidays and after hours) |
| Sir Charles Gairdner Hospital<br>Microbiology Department<br><br>Clinical Immunology Registrar | <br><br><br>(08) 9346 3333 (Monday – Friday)<br><br>Page on call Immunology Registrar<br>(Weekend / afterhours/ public holidays) |
| Fiona Stanley Hospital<br>Infectious Diseases Department<br><br>Infectious Diseases Physicians | <br><br><br>(08) 6152 2222 |
| **HIV Specialists are available on call 24 hours a day via hospital switchboards.** | |

**TRUVADA (HIV Prophylaxis)**
**Truvada Starter Kits are available in the Medication Cupboard in all WACHS Midwest Emergency Departments or the Regional Pharmacy**

Sourced from:
WA Health Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting

## Appendix 2 - Risk assessment and classification of occupational exposures

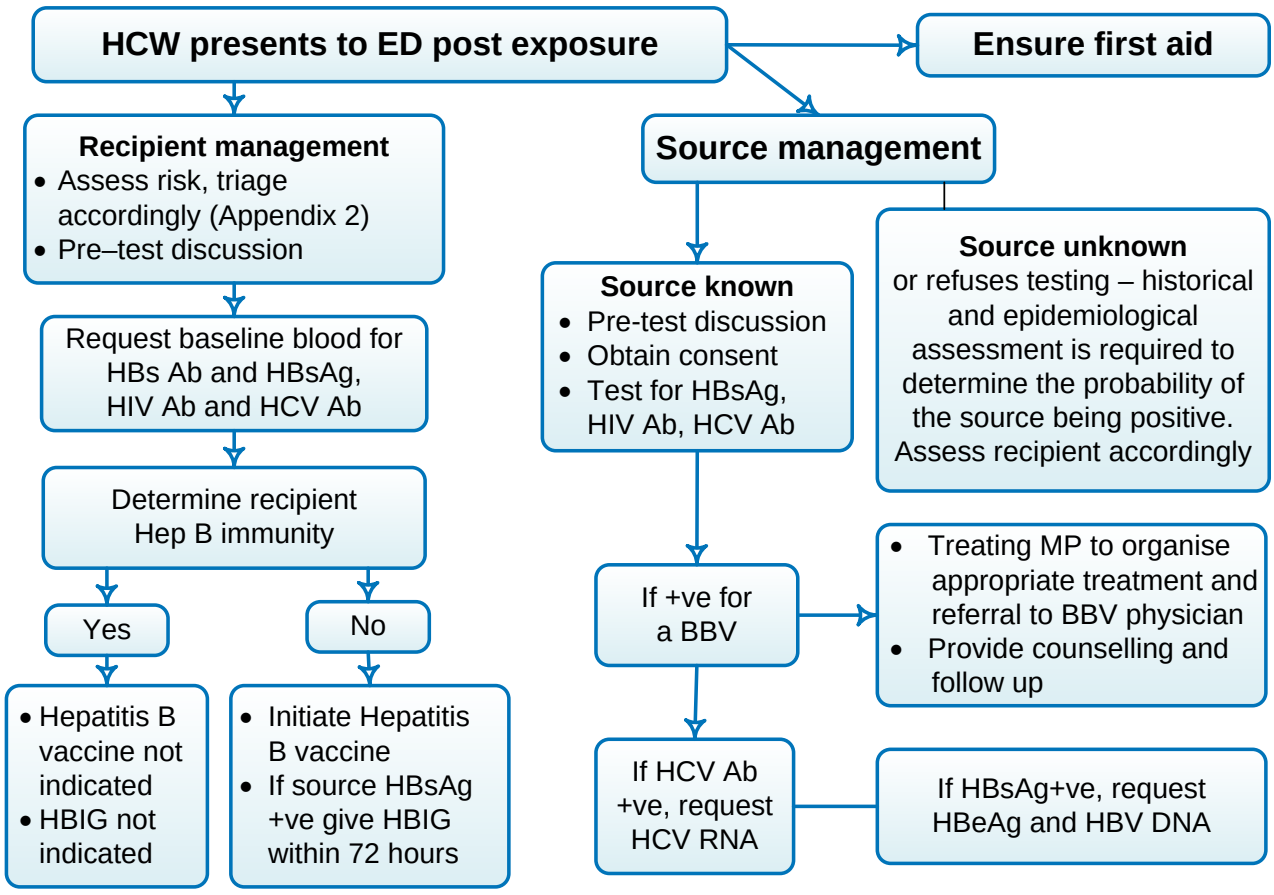
The highest risk of transmission for any BBV is associated with:

- a deep injury with a device visibly contaminated with blood
- injuries associated with contaminated hollow bore needles
- a source patient with late stage HIV infection or high viral load
- a source patient with HBV who is HBAg positive, HBV DNA detectable or high viral load
- a source patient with HCV who is HCV RNA PCR detectable

| Classification and Risk | Assessment |
|---|---|
| Massive Exposure<br>(High Risk) | • Transfusion of blood.<br>• Injection of large volume of blood or body fluid (>1ml).<br>• Parenteral exposure to laboratory specimens containing high titre of virus. |
| Definite Exposure<br>(Moderate Risk) | • Skin penetrating injury with a needle contaminated with blood or body fluid.<br>• Injection of blood or body fluid < 1ml.<br>• Laceration or similar wound which causes bleeding, and is produced by an instrument that is visibly contaminated with blood or body fluid.<br>• In laboratory settings, any direct inoculation with material likely to contain HIV, HBV or HCV |
| Possible Exposure<br>(Low Risk) | • Intradermal (superficial) injury with a needle contaminated with blood or body fluid.<br>• A wound not associated with visible bleeding, caused by an instrument contaminated with blood or body fluid.<br>• Prior wound or skin lesion contaminated with blood or body fluid.<br>• Mucous membrane or conjunctival contact with blood or body fluid.<br>• Scratched/broken skin caused by a fingernail injury when there is blood evident on the source hands.<br>• Human bites that break the skin - the clinical evaluation should include the possibility that both the person bitten and the person who inflicted the bite were exposed to BBVs. |
| Doubtful Exposure<br>(Very Low Risk) | • Intradermal (superficial) injury with a needle considered not to be contaminated with blood or body fluid.<br>• Superficial wound not associated with visible bleeding, caused by an instrument considered not to be contaminated with blood or body fluid.<br>• Prior wound or skin lesion contaminated with a body fluid other than blood, e.g. urine.<br>• Mucous membrane or conjunctival contact with a body fluid other than blood. |
| Non Exposure<br>(No Risk) | • Intact skin visibly contaminated with blood or body fluid. |

Sourced from: WA Health WA Health Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting

## Appendix 3 - Occupational Exposure Procedure




### Recipient follow up testing

- **Source HIV positive/unknown**
  Repeat HIV Ab at 6 and 12 weeks
- **Source HCV positive/unknown**
  HCV RNA PCR and ALT at 4, 8 and 12 weeks post exposure
  HCV antibody at 12 and 24 weeks
  If HCW performs exposure prone procedures, earlier testing may be required – discussed with Infectious Disease Specialist/Clinical Immunologist
- **Source negative for HIV, HCV**
  HCW is offered follow up testing at 3 months for reassurance
- **Source HBV positive/unknown and recipient not immune to HBV LFT at 6 and 12 weeks HBsAg at 12 weeks and 24 weeks**
- **Consultation with Infectious Disease Physician and/or Clinical Immunologist is required prior to any post exposure prophylaxis**

Adapted from: WA Health WA Health Management of Occupational Exposure to Blood and Body Fluids in the Health Care Setting