

BLOOD AND BODY FLUIDS PROCEDURE

INTRODUCTION

The procedure applies to all staff, students or others (e.g. visiting researchers) who may be exposed to blood and/or body fluids within the University. This includes those working with blood and body fluids as well as those who may be inadvertently exposed to these materials.

This procedure is also relevant to the University's Control of Substances Hazardous to Health Procedure which states that the University undertakes to assess the risk to health from hazardous substances used in or created by workplace activities.

This document sets out procedures and guidance to assess and manage the risk arising from exposure to blood borne viruses, and to manage exposure incidents appropriately and in line with the latest guidelines for best practice.

Staff may, in the course of their duties, be exposed to the risk of transmission of blood borne viruses (Hepatitis B, Hepatitis C, and HIV), through accidental inoculation by contaminated sharp instruments.

There is a very small risk that blood borne viruses may also be transmitted by contamination of open wounds, skin abrasions and damaged skin by infected blood, or through splashes to the eyes, nose and mouth.

The estimated risk of HIV transmission after percutaneous exposure (needlestick injury from hollow bore needle) to HIV infected blood is about 3 in 1000 and 1 in 1000 for significant exposure to mucous membrane or non-intact skin. It is considered that there is no risk of HIV transmission when the skin is intact.

The risk of infection with Hepatitis B is about 30 in 100 when the source is known to be Hepatitis B positive. HIV and Hepatitis B virus can remain infectious in dried blood or liquid blood for several weeks *N.B* Health & Life Science colleagues and students who carry out clinical or other work in a health care setting (including research), should follow the policies and guidance set out by the health care organisation and must report any exposure to Blood Borne Viruses to the University using the contact details in appendix 5.

RESPONSIBILITIES

Deans of School and Heads of Department are responsible for all health and safety within their remit and therefore must:

- Ensure relevant colleagues are made aware of this procedure and follow it
- Ensure sufficient risk assessments are undertaken, and their findings acted upon.

Health, Safety and Wellbeing Champions act as the focal point for health, safety and wellbeing within their School or Department and as such must inform the Dean/Head or other colleagues as appropriate if they become aware of any issues relating to this procedure, or how it is being enacted.

All Staff

- All staff who may routinely or otherwise become exposed to body fluids as part of their job must follow this procedure.

PROCEDURE

Working with NHS Partners

Where work is carried out in NHS premises or with the NHS it will be necessary for researchers to have a research passport. Information regarding this is available through the Ethics Committee or HR. Where researchers are working with blood or body fluids this research will carry details of their immunisation history.

Definitions

Blood borne virus infections (BBV) are viruses that some people carry in their blood or other body fluids, which may lead to illness and include Hepatitis B, Hepatitis C, and HIV (Human Immunodeficiency Virus).

Risk Assessment is the process of identifying hazards, which could cause people harm and taking steps to eliminate or reduce the risks. Risk assessment of procedures involving any hazardous substances, including blood and body fluids, is required under the COSHH regulations and should be completed prior to

the commencement of such work and reviewed regularly. While it is the responsibility of individual departments to identify potential hazards and assess the risks to employees exposed to these hazards, the Health and Safety Team are available to offer advice and will be involved in auditing risk assessments.

Source client is the person whose blood or body fluid may have been implicated in the exposure incident.

Recipient is the injured member of staff or student.

Exposure incident is any incident where staff, are exposed to direct contact with blood or body fluids and includes needle stick or sharp injuries.

Sharps injuries may expose the recipient to blood borne viruses and include injuries from contaminated sharp instruments such as needles but also from bites, scratches and splashes of body fluids onto skin or into eyes.

Significant Exposure is determined by assessment of the type of injury sustained, body fluid involved and condition of sharp instrument involved.

Post Exposure Action

Prophylaxis is the preventative treatment of disease.

- **Hepatitis B** vaccination is available and should be provided to any member of staff prior to them carrying out procedures, which carry a significant risk of exposure. These procedures will be identified through a risk assessment. In the event of an exposure incident, unvaccinated staff should attend at the nearest Accident and Emergency Departments of an NHS Hospital where they should receive Hepatitis B virus prophylaxis. This comprises of an immunoglobulin that should be given within 24-48 hrs of injury, but may still be given later. An accelerated vaccine course will also be prescribed. NB: If the person exposed to Hepatitis B has previously undergone vaccination and is a known responder, a booster dose of Hepatitis B vaccine may still be considered.
- **Hepatitis C** has no vaccine or post exposure prophylaxis available.
- The risk of acquiring **HIV** through exposure incidents is significantly lower than for Hepatitis B. No vaccine is currently available but post exposure prophylaxis is available from the Accident and Emergency Departments of NHS Hospitals. HIV prophylaxis comprises anti-viral agents and is most effective if commenced within 1-2 hours of injury. It can be started and

subsequently discontinued if testing shows that the source client is HIV negative.

It is important that the recipient attends the Accident and Emergency Department as soon as possible after exposure and informs them of the exposure. For this reason, they should be taken by University vehicle or by taxi.

Consent must be obtained from the source client (if known) and the recipient in order to process information about them to the local hospital.

Prevention and Control Measures

Preventing or controlling the risk of contamination is of utmost importance and staff should follow University guidance on capillary blood testing [Appendix 1] and decontamination of body fluid spillage [Appendix 2] to ensure safe systems of work are adhered to. All blood and body tissue should be regarded as potentially infectious.

The following measures can help to prevent contamination in those members of staff whose work may expose them to blood borne viruses:

- Cover skin breaks and abrasions with waterproof dressings.
- Use good basic hygiene practices, such as hand washing.
- Wear appropriate protective clothing and equipment, such as gloves and aprons where the potential for contact with blood is anticipated.
- Where work with blood or body fluids is planned, it should be carried out in an environment that is designed or modified to allow the safe handling of blood and body fluids.
- Take care in the handling and disposal of needles and sharp items
- Control contamination of surfaces by using approved chemical disinfectant.
- Always dispose of contaminated waste safely

Risk Assessment of Exposure Incidents

Risk assessment of exposure incidents should be undertaken to identify situations where significant exposure may have occurred and where further medical treatment and advice will be required. The assessment must consider the type of injury sustained, the nature of the material to which the recipient is exposed, and the risk of carriage of an infectious blood borne virus in the source client.

Medical Advice on risk assessment in an exposure incident can be obtained from the University Occupational Health Service or local NHS Accident and Emergency Department. The following process should be used to assess the level of risk involved.

Risk Assessment Process

The likelihood of infection arising from a needle stick injury is assessed through a risk assessment that takes into account the different factors involved in the incident. These are the type of injury, the material (ie, the type of blood or body fluid involved) and the source client (How likely is it that the source of the blood and body fluids is infected with HIV or Hepatitis B.

While this risk assessment process may be used to calculate the risk following a needle stick it should be used to calculate the risk **prior** to carrying out **any** work with human blood.

Where the calculation indicates that the procedure is low risk, care must still be taken to prevent direct, unprotected contact with the blood or body fluids.

All staff routinely working with blood or body fluids should be vaccinated against Hepatitis B prior to commencement of work. If there is the likelihood of HIV being involved then arrangements must be made immediately after any direct, unprotected contact to have post exposure prophylaxis administered immediately.

Factors to be taken into account in risk assessment.	
The Injury	<p>High risk</p> <p>I Percutaneous exposure</p> <p>II Exposure on broken skin</p> <p>III Mucous membrane exposure (e.g. eye)</p> <p>Low risk</p> <p>Exposure on intact skin</p>
The Material	<p>High risk body fluid: Blood or blood-stained low risk fluid</p> <ol style="list-style-type: none"> 1) Amniotic fluid 2) Breast milk 3) CSF 4) Pericardial fluid 5) Peritoneal fluid 6) Pleural fluid 7) Saliva (associated with dentistry) 8) Semen 9) Synovial fluid 10) Unfixed tissues or organs 11) Vaginal secretions <p>Low risk (unless blood stained):</p> <ol style="list-style-type: none"> 1. Urine 2. Vomit 3. Saliva (not associated with dentistry) 4. Faeces
The Source Client	<p>A) Known to be HIV positive or have had high-risk behaviours associated with blood borne virus transmission, i.e.</p> <ul style="list-style-type: none"> • Men who have had sex with men • Intravenous drug users in past or currently • Recipients of blood products outside of the UK • Travellers from high risk areas (Africa, Caribbean, Eastern Europe or the Far East) and who have had sex with men or women living there or received hospital treatment there • People who have had sex with someone in these groups

	<p>B) Known to be Hepatitis B or C positive or presence of current jaundice/ or liver disease, possibly of viral origin or High risk behaviours associated with blood borne virus transmission risk factors from (A) above</p> <p>C) Not known to be HIV or Hepatitis B or C positive and no risk factors</p>
<p>Calculation of risk.</p>	
<p>Risk Assessment</p>	<p>For a needle stick or sharps injury to be classed as High risk the following criteria apply: The injury must fall into category I, II, or III and The material must fall into category 1 and The source of the blood or body fluid must fall into category A and/or B.</p> <p>If any one or more items from these three risk factors is missing then the injury is low risk.</p> <p>Example 1: Injury type is I, Material type is 1) and the Source Patient type is A: the injury is therefore High risk Example 2: Injury type is III and Material type is 2) and the Source Patient type is C: The injury is therefore Low risk</p>

Post exposure prophylaxis (PEP) is likely to be recommended when risk assessment indicates a high risk of transmission of HIV or HBV. In view of the need for prompt treatment and the serious consequences of infection, significant exposure constitutes a medical emergency and immediate transfer of the recipient to NHS Accident & Emergency services is required.

Procedure in the Event of Blood or Body Fluid Exposure Incident

In the event of a **significant exposure** incident, including a needle stick or sharps injury,

- The wound should be immediately rinsed thoroughly in running water and bleeding should be encouraged.
- The area should be washed liberally with soapy water
- Tap the area dry with a clean dry towel, do not rub wound,
- Contaminated mucous membranes, including the eyes, should be well rinsed with water.
- The injured person should seek emergency medical treatment at the nearest Accident and Emergency Department.

A prompt response is essential as evidence suggests that HIV post – exposure prophylaxis is most effective if commenced within 1-2 hours of exposure.

Once these steps have been taken, the Health and Safety Team should be notified as soon as possible on 0141 848 3922. Details of the type of injury, the type of material and the client source risk factors if known should be communicated to the hospital staff.

In cases where exposure is thought to be **low risk** (when the skin is intact and the source client is not known to be HIV, Hepatitis B or C positive and has no risk factors) the University Health and Safety Team or an Accident and Emergency Department should still be contacted by telephone for advice.

Any spillage of blood or body fluids should be appropriately cleaned using the spill kits provided at the locations listed in **Appendix 3**. Instructions for use of spill kit equipment can be found in **Appendix 2**.

Counselling

Following an exposure incident, specialist counselling is available from local NHS sources and can be accessed through Accident and Emergency Departments or General Practitioner Surgeries.

Special Circumstances - University Staff working Overseas

There are occasions when University staff may travel abroad to work and, in some cases, this may involve a significant risk of occupational exposure to Blood Borne Viruses.

An online travel form must be completed for all staff and student trips overseas. This includes a proportionate risk assessment that the traveller/lead member of

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staff will undertake. This will be based on the risks associated with the activity (e.g. attending a conference vs fieldworking in a remote area), as well as the risks associated in the destination country or region. If there is a significant risk of exposure to blood or body fluids identified this will be identified on the risk assessment and the traveller will be advised to seek advice from a specialist travel clinic, who may proscribe post exposure prophylaxis to be self administered if required during the trip. Any reasonable additional costs associated with this will be borne by the school or department

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Changes and Reason for Changes – Department Name Change

Appendix 1

Procedure for Capillary Blood Sampling:

1. The procedure should be fully explained to the client and informed and written consent obtained.
2. The operator should cover any cuts or abrasions on their hands with waterproof dressings to prevent contamination.
3. The operator should wash and dry their hands and put on nitrile gloves (or equivalent).
4. The finger to be used for testing should be cleaned with a sterile alcohol swab. Time should be allowed for the alcohol to evaporate as this may interfere with the sample.
5. When using an automated lancet device follow the manufacturer's instructions for use.
6. If the lancet is used manually extreme caution should be exercised to avoid needle stick injury to the operator.
7. If necessary the finger can be gently squeezed to encourage an adequate blood sample.
8. Guide finger to the sample plate and place the droplet on the test strip or if preferred gather droplet in capillary tube.
9. Apply cotton ball or gauze swab to injection site and apply moderate pressure until bleeding has stopped.
10. Follow manufacturer's instruction for the use of specific measuring equipment.

Points to consider when undertaking Capillary Blood Sampling:

- **Patient adverse reaction**, i.e. faint, excess bleeding, pain. Appropriate first aid provision should be available and any such incidents should be reported using the online incident reporting system available on the intranet.
- **Infection control including:** personal hygiene measures, the use of PPE such as gloves, appropriate and safe disposal of clinical waste and sharps.
- **Needle stick injury or cross contamination.** Consider immune status of operators and the requirements for immunisation. In the event of an injury, follow the guidance in the "Blood and Body Fluids: Procedure and Guidance for the Management of Exposure".
- **Maintenance and care of equipment.**
- **Guidelines for referral to medical practitioners** in the event of abnormal results.

Appendix 2**Instructions for Use of Spillkit/Sharps Kit****ONLY TO BE USED BY COMPETENT PERSONS**

The contents of the Spillkit/SharpsKit have to be used in the event of any spillage of blood, blood stained fluids or other body fluids eg urine, vomit, faeces or where you have to remove a sharp.

1. The main priority is to ensure your own safety and personal protection. The kit contains a disposable apron and gloves that must be worn. Where the cleaning procedure is likely to cause body fluids or substances to splash, into the eye, face or mouth, the disposable masks and reusable safety glasses must be worn.
2. To contain the spillage, shake enough inert granules over the spillage to cover it and leave for 5 minutes. This will help solidify the spillage and assist you in cleaning it up using the plastic scoop to empty the spillage into the yellow clinical waste bag.
3. Spray the spillage area with the disinfectant and leave for a further 2 minutes before drying the area with the disposal cloth provided.
4. All cleaning items and disposable personal protective equipment should be placed in the yellow bag and disposed of in a clinical waste bin, first aid room, or by following local arrangements for disposal of clinical waste.
5. After you have removed your gloves, ensure you clean your hands thoroughly by washing them in hot, soapy water. Glove protection is not a substitute for hand washing.
6. Refills for the Spill kits can be obtained by contacting Occupational Health.
7. If there are any sharps e.g. needles, syringes, broken test tubes or glass slides, **DO NOT PICK THEM UP!** Place them in the yellow sharps container provided using the forceps to pick them up as per the instructions in the Sharp skit.
8. If you are injured by a sharp and exposed to blood it is essential to report it to your Supervisor/Manager, the Health and Safety Team and Occupational Health teams immediately. If Occupational Health is closed, you must go to the local Accident & Emergency Department to seek medical help.
9. You must complete an Incident Report when you have used the Spillkit/Sharps Kit.

Appendix 3

Location of Spill Kits

These are general locations, although Schools or Departments may also have spill kits in other locations depending on their activities/levels of risk which local staff should be aware of.

Paisley

Main Reception
First Aid room (B201)
Cleaning Supervisor
Storie St Residences

Lanarkshire

Main Reception
First Aid Room (1.012)
Cleaning Supervisor

Ayr

Main Reception
Cleaning Supervisor
First Aid Room (3.038)
Residences reception

Dumfries

Main Reception

London

Main Reception

Appendix 4

Incident Report

All Incidents must be reported using the online incident reporting system (Awaken), which can be found via the staff intranet.

Appendix 5

Useful Contacts and References

UWS Occupational Health Department 0141 848 3927
occupational.health@uws.ac.uk

UWS Employee Assistance Programme 0800 030 5182 or via link on all staff computers

Safe Management of Blood and Body Fluid Spillages Scottish Infection Prevention and Control Education Pathway
https://www.nes.scot.nhs.uk/media/3975951/sipcep_bbf_print_v02_may_2017.pdf

Best Practice: Appendix 9 – Management of blood and body fluid spillages
<http://www.nipcm.hps.scot.nhs.uk/media/1412/nipcm-appendix9-20180712.pdf>

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