

Exposure to a Blood Borne Virus

1. PURPOSE

- 1.1 The University aims to prevent exposure to blood and bodily fluids. If an exposure does occur this procedure outlines the steps that must be followed.

2. SCOPE

- 2.1 The procedure applies to all staff and students on all University campuses and to students on clinical placement elsewhere with effect from 1 August 2014.

3. DEFINITIONS

Sharps	Includes needles, sharp-edged or pointed surgical instruments, broken glassware or any other sharp item that may have been contaminated in use by blood or bodily fluids, which may cause laceration or puncture wounds. Sharp tissue such as bone or teeth may also pose a risk of injury.
Sharps Injury	Is any incident where the skin is punctured by an instrument or objects that are contaminated with human blood, body fluid or tissue.
Contamination Incident	Is when blood or blood-stained body fluid comes in contact with mucous membranes (e.g. mouth or eyes) or non-intact skin.
For the purpose of this procedure we will refer to both Sharps Injury and Contamination incident as a sharps injury	

4. RESPONSIBILITIES

Vice-Chancellor

- 4.1 On behalf of the Council the Vice-Chancellor has executive responsibility to ensure, that the requirements of the health and safety legislation and the University health and safety policy are complied with. The Vice-Chancellor will ensure that responsibility for health and safety is properly assigned and accepted at all levels within the University.

Deans, Directors, Heads of Schools and Departments and Research Institute Directors, Managers

- 4.2 Are responsible for the implementation of this procedure. They will ensure that staff and students in their departments are aware of this procedure and their duties.

All employees

- 4.3 Staff are responsible for their own behaviour, their own health and safety and that of others that may be affected by their actions. They have a responsibility to report incidents to their manager and inform Occupational Health immediately.

All Students

- 4.4 Students are responsible for their own health and safety and of others that may be affected by their actions. Students on clinical placement outside the University should report the incident to their local Trust Occupational Health Department and inform their placement tutor / academic supervisor. All other students within the University should complete a Sharps Injury Risk Assessment; report the incident to their placement tutor / academic supervisor, and the University Occupational Health Department or Accident & Emergency Department as appropriate (A&E). In the event of a high risk incident, Genito-urinary Medicine Consultants are available on call through the Royal Victoria Hospital, (Tel: Direct line 02890632662 or switchboard 02890240503).

Occupational Health

- 4.5 Occupational Health has responsibility during normal hours for providing advice, completing documentation and follow up for staff and students on clinical placement at the University that have sustained a sharps injury at work.
- 4.6 Outside of normal working hours staff/students on campus should attend the nearest A&E Department for treatment with a completed Sharps Injury Risk Assessment form. The student/staff member is responsible for advising the relevant Occupational Health department on the next working day.

Student Support

- 4.7 Student Support has responsibility for ensuring that appropriate follow-up action is provided to students on clinical placement outside of the University and for students not on placement within the University. The student is responsible for advising Student Support on the next working day. A flow chart outlining the different treatment and support routes is included at appendix 1.

5. PREVENTION OF SHARPS INJURIES

5.1 The most effective protection against workplace infections from Blood Borne Virus's (BBV) is good work practice through education and training. Always remember to carry out a risk assessment prior to any task being carried out.

- Ensure that the appropriate sharps disposal container is in the area for the safe disposal of blades, needles, glass ampoules and syringes etc.
- Keep these containers in a safe area away from the reach of children or vulnerable individuals.
- Decide on the degree of personal protective equipment to be used after a risk assessment has been carried out.
- Goggles/visors should be worn to avoid splashes or other contaminants.
- Cover any cuts, broken skin with waterproof dressing and gloves. Gloves should be worn in any procedure that could bring you into contact with body fluids or blood.
- Always wash hands after wearing gloves
- Never pass sharps directly from hand to hand.
- Do not rush procedures that include the use of sharps
- Never re-sheath a needle
- Do not move to another task if still holding a contaminated sharp.
- Never leave sharps lying about.
- Never dispose of a sharp in any bag, use approved containers
- Sharps bib should be sealed when $\frac{3}{4}$ full by the last user.

6. MANAGEMENT OF SHARPS INJURIES

Immediate Action

- 6.1 Wash area with soap and water, puncture wounds should be encouraged to bleed freely by gentle squeezing, exposed mucous membranes including mouth and eyes should be irrigated with water. Eyes should be rinsed both before and after removing contact lenses. (Department of Health 2008)

Follow-up of recipient (Injured party)

- 6.2 The student / staff member should initially contact Occupational Health and /or attend the nearest Accident & Emergency Department to have blood taken for storage only and to assess the need to have Hepatitis B vaccination. If they have not had a previous Hepatitis B vaccination then a course should be offered. In the case of the student /staff member attending the A& E department the first vaccine should be given at the A&E department and subsequent vaccines will be followed up by Occupational Health. A Sharps Injury Risk Assessment Form must also be completed (Appendix 2).

Consent

- 6.3 Consent from the client for risk assessment and blood testing should be sought as per DOH guidelines. If the source patient is known, the clinician/GP is required to carry out a post exposure risk assessment ideally within 30 minutes of the incident. The source client should be asked for their consent to blood testing for BBV infections including HIV, Hepatitis B and Hepatitis C. (Appendix 3). If the client is approached in a sensitive manner it is understood that consent to testing is rarely withheld (DOH 2008).

Transport arrangements for blood samples

- 6.4 Samples need to be sent immediately to the designated virology laboratory marked 'source patient' with the relevant tests indicated. If a sample is not being sent immediately then it should be stored in the fridge but sent at the earliest opportunity.

High Risk Injuries

- 6.5 In the case of a high-risk source A&E need to be informed immediately as Post Exposure Prophylaxis if recommended ideally should be commenced within one hour of the injury (Appendix 4).

Unknown Source

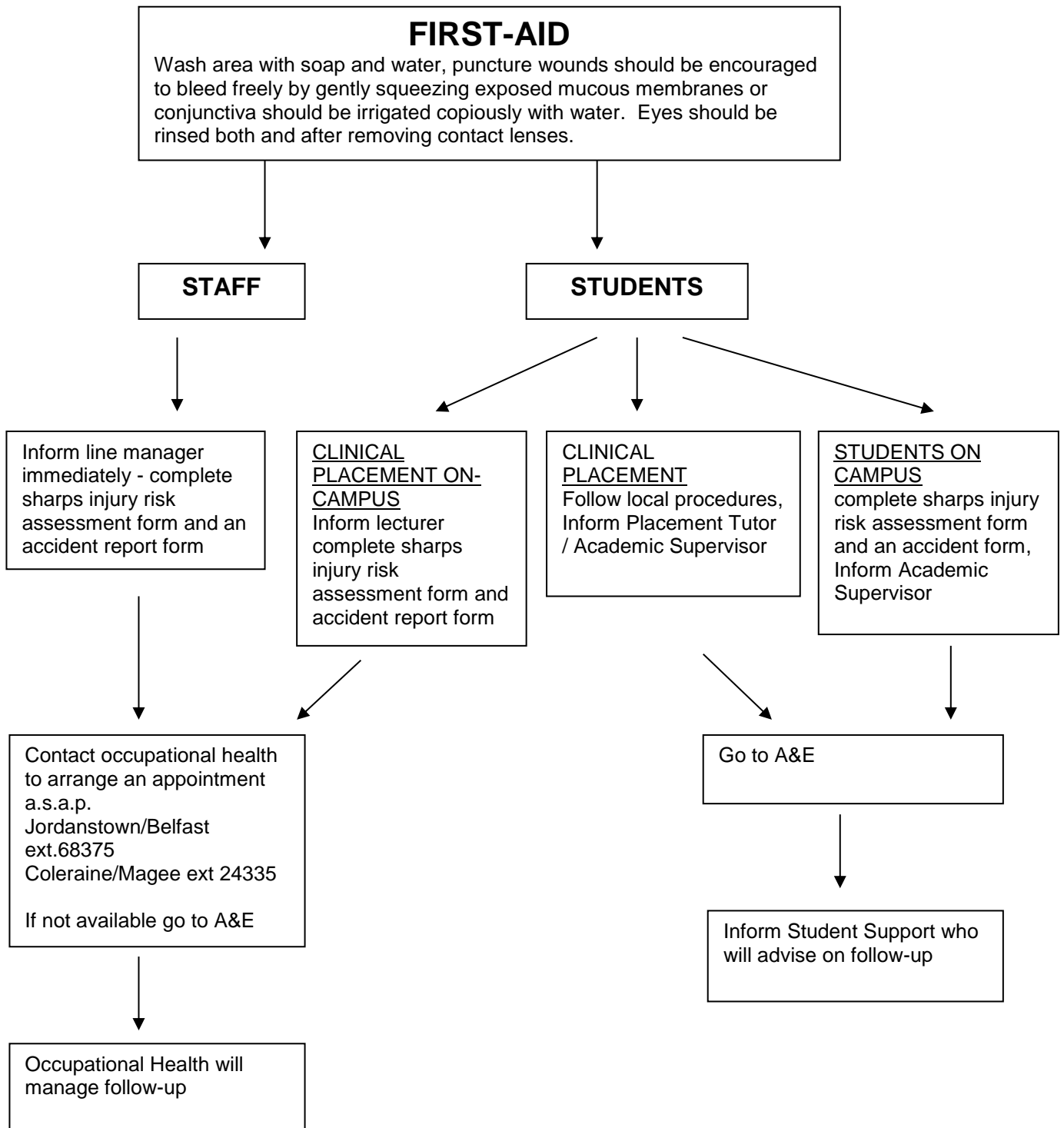
- 6.6 If the source is unknown and there has been a significant exposure a risk assessment should be on an individual basis. This will be decided by a consideration of the circumstances of the exposure and the epidemiological likelihood of BBV in the source.

REFERENCE DOCUMENTS

- The Health and Safety at Work (Northern Ireland) Order (1978)
- Control of Substances Hazardous to Health (COSHH) HSE 2005
- HIV Post Exposure Prophylaxis: Department of Health 2008
- Reporting of Injuries Diseases & Dangerous Occurrences Regulations (RIDDOR) 1997

APPENDIX 1

Flowchart of Treatment and Support routes for staff and students



APPENDIX 2 - SHARPS INJURY RISK ASSESSMENT

FORM

Recipient Details (Person who has had injury)

Full Name	
DOB	
Place of Work	
Occupation	
Home Address	
Contact Number	

Source Details (Person on whom the sharp was used, if known)

Full Name	
DOB	
Home Address	
Contact Number	

Incident Details

Place of incident	
Date and Time of incident	
How did the incident occur?	
Action taken and by whom?	signed.....date.....

Assessment of risks

Sharp involved					
Needle- hollow bore	Needle-solid	Scalpel	Bite	Splash	Other (State)
Visible Blood on needle/sharp?			Yes	No	
Type of body fluid involved					
Blood	Saliva	Urine	Other Please state		
Depth of the injury					
Superficial	Moderate	Deep	Other		

Sharps Injury Risk Assessment Form

Assessment of source patient by clinician		
Source patient already known to be HIV positive	Yes	No
Source patient at increased risk for HIV infection	Yes	No
Source patient known or suspected to be injecting drug user	Yes	No
Source patient known to be a man who has sex with men	Yes	No
Source patient is Hepatitis B or C positive	Yes	No
Source patient has lived or travelled in HIV endemic areas e.g. Sub-Saharan Africa, South Africa	Yes	No
Source patient is sexual partner of any of the above	Yes	No

Assess overall risk

You now have a picture of the relative overall risk. Unfortunately there are no hard and fast guidelines but some situations e.g. percutaneous needle-stick with a cannula, which has been placed in a HIV positive patient's vein, are higher risk than to others. You should now categorise the risk and decide treatment. Please indicate outcome by marking one box.

High Risk	Known HIV patient Post Exposure Prophylaxis (PEP) if recommended, ideally should be commenced within 1 hour of the injury. Contact the Genito-urinary Medicine Consultants available on call through the Royal Victoria Hospital, (Tel: Direct line 02890632662 or switchboard 02890240503).		
Moderate risk	Some risk factors may have been identified – Contact the Genito-urinary Medicine Consultants available on call through the Royal Victoria Hospital, (Tel: Direct line 02890632662 or switchboard 02890240503).		
Low risk	No risk factors identified – routine management		
Name of assessor	Designation	Date	Time

APPENDIX 3

SOURCE PATIENT INFORMATION/CONSENT FORM

When a Student or member of staff has an injury/incident involving Blood/Body fluids clients are approached to obtain a risk assessment and blood sample.

- The chance of any viruses being present in your blood is extremely small. However, in the event of a positive result you will be informed by your doctor and all necessary follow up arranged.
- A HIV test obtained because a clinician has been exposed to your blood should have no adverse effect on an application for life insurance The Association of British insurers indicate that insurance companies should only ask if someone has had a positive HIV test, or is receiving treatment for HIV/AIDS.
- The Clinician obtaining your consent for Hepatitis B, C and HIV testing should be able to answer any questions or concerns you may have.
- We would emphasise that this is normal routine practice and that you are not at risk of “catching” anything from this incident.

We would greatly appreciate your co-operation in this manner, which will enable us to treat and reassure the member of staff involved.

Consent	
I understand that an injury has occurred to a health care worker and I consent to having a risk assessment undertaken that will involve some questions and a blood test to look for the following viruses.	
Hepatitis B	<input type="checkbox"/>
Hepatitis C	<input type="checkbox"/>
HIV	<input type="checkbox"/>
Signed	Dated
.....
Witnessed	

APPENDIX 4

Hepatitis B Prophylaxis for reported exposure incidents

HBV status of person exposed	Significant Exposure			Non-significant Exposure	
	HBsAg positive source	Unknown source	HBsAg negative source	Continued risk	No further risk
≤ 1 dose HB vaccine pre-exposure	Accelerated course of HB vaccine* HBIG x 1	Accelerated course of HB vaccine *	Initiate course of HB vaccine	Initiate course of HB vaccine	No HBV prophylaxis Reassure
≥ 2 doses HB vaccine pre-exposure (anti-HBs not known)	One dose of HB vaccine followed by second dose one month later	One dose of HB vaccine	Finish course of HB vaccine	Finish course of HB vaccine	No HBV prophylaxis Reassure
Known responder to HB vaccine (anti-HBs > 10 miU/ml)	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	No HBV prophylaxis Reassure
Known non-responder to HB vaccine (anti-HBs < 10 miU/ml 2-4 months post-immunisation)	HBIG x 1 Consider booster dose of HB vaccine	HBIG x 1 Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No prophylaxis. Reassure

* An accelerated course of vaccine consists of doses spaced at 0, 1 and 2 months.

A booster dose may be given at 12 months to those at continuing risk of exposure to HBV.

Specific hepatitis B immunoglobulin (HBIG) is available for passive protection if indicated. Immunoglobulin should be administered as soon as possible after exposure. It should preferably be given within 48 hours and certainly no later than a week after exposure.

(Department of Health 2008)

Additional Comments and Follow up

Date	Comments and Outcomes

SHARPS INJURY ADVICE SHEET

TO BE GIVEN TO MEMBER OF STAFF OR STUDENT AFTER A SHARPS INJURY

The purpose of this information leaflet is to inform you of the potential risks and treatments on offer following a sharps injury. Please read carefully and at any time you may contact the Occupational Health Department if you have any queries or need further advice / support.

Jordanstown/Belfast 02890 368375

Coleraine/Magee 028701 24335

Possible Health Risks

A risk inherent in any sharps injury is that of the possibility of infection, in particular, hepatitis B, hepatitis-C and HIV. Hepatitis is defined, as an inflammation of the liver and can occur from many other causes, not only viral infections. HIV is an infection, which affects the body's immune system. The overall risks of getting these particular infections, i.e. hepatitis-B, hepatitis-C and HIV from sharps injuries are as follow: -

- Hepatitis-B - between 5% and 20% if the needle is contaminated with a source patient with hepatitis-B.
- Hepatitis-C - 10% if it is contaminated with blood from a source patient with hepatitis-C.
- HIV - less than approx. 0.1% if needle contaminated with blood from a source patient with HIV.

The prevalence of all of these conditions is lower in N. Ireland than in most other countries (e.g., hepatitis-B is carried by 1 in 1,600 of the population in N.Ireland and HIV by 1 in 7000). Also the risks depend on the nature of the injury, (being higher where a significant volume of fresh blood is inoculated into a deep wound / tissue).

Where the source is known, blood is taken from him / her (with his / her consent) for hepatitis B/C and HIV testing. Based on the results of risk assessment and source's bloods, appropriate immunisation and follow up is arranged for the injured staff/student member. This will generally involve up to three or four doses of hepatitis-B vaccine if the staff member has not previously been vaccinated.

There are no vaccines as yet against Hepatitis C or HIV but other treatments can be considered if the source is known to suffer from one of these conditions.

Immediately following a sharps injury it is recommended that a blood sample is taken for storage from the injured staff member so that if they later become unwell this sample can be tested to confirm their state of health at the time of their injury.

Appropriate follow up for vaccination or other necessary treatment will be arranged according to the risks. You will be routinely called for review on a number of occasions after your injury and we hope you will attend. It is your responsibility to attend for follow up.

If however at any time you have any queries and /or wish to talk about specific areas of concern please do not hesitate to contact the Occupational Health Department.

I hereby certify that I have been given advice by _____ about my sharps injury. I understand the advice of which I have been given a copy. I also understand that I may contact the Occupational Health at any time to discuss any concerns I may have about this incident.

Occupational Health Signature _____

Date _____

Injured Person's signature _____

Date _____