

PRACTICAL GUIDE TO INFECTION CONTROL - SECTION 3

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POLICY FOR EXPOSURE TO BLOOD BORNE VIRUSES THROUGH INOCULATION INJURY OR BODY FLUID EXPOSURE

Inoculation injury accounts for 17 per cent of accidents to NHS staff and are the second most common cause of injury behind moving and handling at 18 per cent (National Audit Office, 2003.)

Risk of Transmission of Blood Borne Viruses:

Sharp instruments frequently cause injury to Healthcare workers (HCW)* and are a cause of transmission of blood-borne viruses. The risk of transmission to a HCW from an infected patient following an injury has been shown to be:

- 1:3 when a source patient is infected with Hepatitis B and is a carrier
- 1:30 when a source patient is infected with Hepatitis C
- 1:300 when a source patient is infected with HIV

Definition of Exposure

Significant Exposure:

- Percutaneous exposure - an inoculation or other blood/blood stained body fluid contaminated sharp object injury, a bite which causes bleeding or other visible skin puncture.
- Mucocutaneous exposure - to blood or body fluids with contamination of non-intact skin (e.g. cuts, abrasions, sores, chapped skin etc) conjunctivae or mucous membranes.

Non-significant Exposure:

- Exposure of intact skin
- Exposure to vomit, faeces or urine (unless visibly blood stained)
- Exposure to sterile or uncontaminated sharp objects

Prevention Measures:

Primary Prevention Measures Include:

- The use of Universal Precautions when collecting or handling material from patients.
- Adherence to the policy for using and safe disposal of sharps.

**POLICY FOR EXPOSURE TO BLOOD BORNE VIRUSES THROUGH
INOCULATION INJURY OR BODY FLUID EXPOSURE**

- Where safe and effective vaccination is available, HCW's should be vaccinated whenever possible. All HCW's should be offered vaccination against Hepatitis B and have their post-vaccination antibody status determined.
- **Safety-engineered Devices**

In recent years a number of devices with safety engineered features have become available to reduce the risk of inoculation injury. There is a large range of diverse products available, so it is essential to select the most appropriate product for a particular clinical procedure. Details of products available in the UK can be found at www.pasa.nhs.uk. It is important that devices are evaluated locally by relevant stakeholders.

**HCW (Healthcare worker) is an individual employed to work in the Trust, who may come into contact with blood or fluids taken from patients, or with sharp instruments that have been used on patients.*

POLICY FOR USING AND SAFE DISPOSAL OF SHARPS

Definition of Sharps:

Sharps include needles, scalpels, broken glass or other items that may cause skin laceration or puncture.

Disposal of sharps in inappropriate places may present a considerable risk to other employees and every Healthcare worker has a responsibility to ensure proper use and disposal of sharps.

PROCEDURE FOR DISPOSAL OF USED SHARPS

ACTION	RATIONALE
Never re-sheath used needles. Dispose of needle and syringe as a single unit directly into sharps' box.	Re-sheathing is particularly dangerous because if the needle misses the sheath it will puncture the hand holding it. Re-sheathing needles is also a common cause of inoculation injury.
Vacutainer System - dispose of barrel and needle as a single unit directly into sharps' box after single use.	Injury due to used needles often happens after use but before disposal.
All sharps should be disposed of carefully at the point of use. Sharps containers (conforming to British Standard BS 7320) should be portable enough to take to the site of a procedure, and designed specifically to allow needles and sharp instruments to be disposed of easily and safely.	Factors such as insufficient sharps containers being used, sharps on trolleys, beds, locker tops or discarding sharps into plastic waste bags are commonly responsible for causing needle stick injuries.

POLICY FOR USING AND SAFE DISPOSAL OF SHARPS

ACTION	RATIONALE
When transferring or using needles and syringes around the clinical area, ensure they are placed in a clean receiver. Do not pass sharps directly from hand to hand.	Carrying needles in the hand or placing them on surfaces increases risk of needle stick injury.
Do not store sharps boxes on the floor in the clinical area. They must be stored out of the reach of children, approximately waist height, and the temporary closure facility must be used when not in use.	They may be accessible to children or others at visiting times.
Before use, sharps boxes must be labelled and assembled correctly so that the lid is securely attached to the base. Sharps container must conform with BS 7320.	Carelessly assembled or improperly closed sharps' bins may subsequently break open during transport.
Label sharps boxes with the ward/dept name prior to disposal.	In case of subsequent needle stick injury to staff collecting/disposing of used containers.
Procedure for Disposal of IV Administration Sets Giving sets used for blood administration should be disposed of at the bedside directly into an appropriately sized sharps container.	To reduce the risk of blood spillage.
Giving sets used for other IV Fluids Drain residual fluid leaving giving set attached to infusion bag . Dispose of cannula into sharps' box and the empty infusion bag and giving set into yellow clinical waste bag (so that it is protected by infusion bag) .	To prevent the over-filling of sharps' boxes with unnecessary clinical waste.

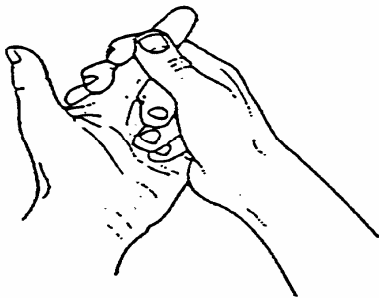
POLICY FOR USING AND SAFE DISPOSAL OF SHARPS

ACTION	RATIONALE
<p>All trays/sets used for minor/major surgical procedures must be thoroughly checked on completion of the procedure to ensure all sharps have been removed prior to their return to SSD.</p>	<p>To reduce the risk of exposure to injury of HCW's in SSD.</p>
<p>All healthcare workers must receive specific training in prevention of inoculation injuries at commencement of employment and annual updates thereafter.</p>	<p>To reduce the risk of inoculation injury. To ensure that safety becomes embedded into organizational culture and safe working practices become second nature.</p>

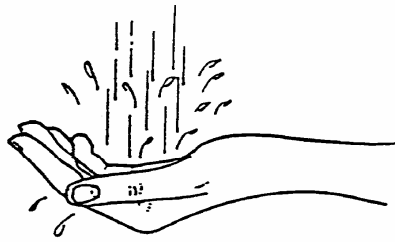
POLICY FOR ACTION FOLLOWING INOCULATION INJURY OR EXPOSURE TO BLOOD AND BODY FLUID

What to do if you sustain an inoculation injury

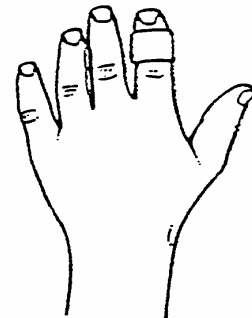
FIRST AID



- a) Encourage bleeding by squeezing.
(Do not press or suck)



- b) Wash thoroughly with soap and water.



- c) Cover with waterproof dressing

- Splashes to the eye, nose or mouth should be washed out with copious amounts of water (sterile water for the eye if available.)

REPORTING

- Report to the Occupational Health Department immediately Wythenshawe 2674 (8:00am - 4:30pm Monday - Friday.) If closed attend the A & E Department at Wythenshawe Hospital and report to the Occupational Health Department as soon as possible;
- Complete a HIRS report recording the source of contamination, i.e. name of source (if known), type of fluid, type of injury and how it occurred;
- Report the injury to your line manager, or supervisor as soon as possible.

POST EXPOSURE PROPHYLAXIS

Introduction

HIV and Significant Exposure

The risk of acquiring HIV infection following occupational exposure to HIV infected blood is **low**. Epidemiological studies have indicated that **the average risk for HIV transmission after percutaneous exposure to HIV infected blood in health care settings is about 3 per 1,000 injuries (0.3%)**.

Definition of Exposure

Significant Exposure:

- Percutaneous exposure - an inoculation injury or other blood/blood stained body fluid contaminated sharp object injury, a bite which causes bleeding or other visible skin puncture.
- Mucocutaneous exposure - to blood or body fluids with contamination of non-intact skin (e.g. cuts, abrasions, sores, chapped skin etc) conjunctivae or mucous membranes.

Non-significant Exposure:

- Exposure of intact skin
- Exposure to vomit, faeces or urine (unless visibly blood stained)
- Exposure to sterile or uncontaminated sharp objects

Healthcare workers who have a **significant** exposure to blood and/or blood stained body fluids from a source that is known or is at high risk of being HIV infected must be offered post exposure prophylaxis (PEP) therapy.

It is important that post exposure prophylaxis be commenced within 1 hour of exposure.

Source Patient

Post exposure prophylaxis should be sought following significant exposure to a patient in the following situations:-

- The source patient is known to be HIV positive
- The source patient is undergoing a test to determine their HIV status
- The source patient has an HIV related illness

POST EXPOSURE PROPHYLAXIS

Action to be taken in the event of significant exposure to a source known or at high risk of HIV infection:

First aid as page 7

- Report to the Occupational Health Department immediately Wythenshawe. Ext. 2674 (8:00am - 4:30pm Monday – Friday).
- If the Occupational Health Department is closed, contact the A & E Department or the on-call Virologist via the switchboard.
- If PEP is recommended, the on call Virologist will contact the on-call Pharmacist/Night Manager or A & E and arrange to have the required amount of therapy made available to you or delivered to you.
- On receiving the information package and drugs. **IT IS VERY IMPORTANT THAT YOU READ THE INFORMATION CAREFULLY BEFORE TAKING THE DRUGS.**
- Further information/counselling **at the time of injury** can be obtained by contacting the National AIDS help line (number available in the information packet).
- You will be supplied with a sufficient amount of drugs to last until the next working day of the Occupational Health Department.
- Report to Occupational Health Department at the earliest possible opportunity for further advice on continuing with PEP and counselling.

NB Remember to contact your manager at the time of the incident and complete the relevant incident report.

The Source Patient

Testing a patient for a serious communicable disease such as HIV, Hepatitis B, C, should not be undertaken without consultation of the clinician in charge of the patient's care.

POST EXPOSURE PROPHYLAXIS

Testing the source patient - Pre-test discussion

There are five main components of pre-test discussion. These are:

1. Ensuring the individual understands the nature of HIV infection; provision of information about HIV transmission and risk reduction.
2. A discussion of risk activities the individual may have been involved in with respect of HIV infection including the date of the last risk activity and perception of the need for a test.
3. Discussion of the benefits and difficulties to the individual, his or her family and associates of having a test and knowing the result whether positive or negative.
4. Providing details of the test and how the result will be provided.
5. Obtaining an informed decision about whether or not to proceed with the test.

Testing the Source Patient - Advice from the GMC

The patient's consent should be obtained prior to testing for a serious communicable disease (e.g. HIV, Hepatitis B and C). If the patient is unconscious when the injury occurs consent should be sought once the patient has regained full consciousness. If appropriate the injured person can take prophylactic treatment (for HIV), until consent has been obtained and the test result known.

POST EXPOSURE PROPHYLAXIS

Testing against the patient's wishes or without consent should not take place other than in exceptional circumstances, for example, where there is good reason to think that the patient may have a condition such as HIV, for which prophylactic treatment is available. In such cases an existing sample taken, for other purposes, may be tested. **This must be discussed with an experienced medical practitioner first. It is possible that a decision to test an existing blood sample without consent could be challenged in the courts or be the subject of a complaint to your employer or the GMC. You must therefore be prepared to justify your decision.**

Testing without Consent

The patient should be informed of testing at the earliest opportunity. To preserve patient confidentiality only the patient and the individual(s) exposed to infection may be told about the test and its results. In these exceptional circumstances neither the fact that the test has been undertaken, nor the results, should be entered in the patient's personal medical records without the patient's consent.

Exposure* of members of public to high risk blood and / or blood stained fluids

If a member of the public is exposed to blood and / or blood stained body fluids from a source that is known or is at risk of being HIV infected they must be advised to attend A & E immediately. A & E staff should be informed that the member of the public is attending, so that the agreed PEP policy can be followed as quickly as possible.

Exposure* of inpatients to high risk blood and / or blood stained fluids

If an inpatient is exposed to blood and / or blood stained body fluids from a source that is known or is at risk of being HIV infected, the clinician in charge of their care must undertake a risk assessment in consultation with the on call virologist. If PEP is recommended the clinician should arrange for this to be commenced within 1 hour of the exposure.

(*see "Definition of exposure" page 2 of section 3.)

POST EXPOSURE PROPHYLAXIS

References

Department of Health (2000) HIV Post-exposure Prophylaxis; Guidance from the UK Chief Medical Officers' Expert Advisory Group on AIDS.
General Medical Council (1997) Serious Communicable Diseases.

Department of Health (1996) Guidelines for pre-test discussion on HIV testing.

Department of Health (1998) Recommendations of the Expert Advisory Group on *AIDS* and the Advisory Group on Hepatitis. 'Guidance for Clinical Health Care Workers.' Protection against Infection with blood-borne viruses.

The National Audit Office (2003) 'A safer place to work – improving the management of health & safety risks to staff in NHS Trusts.' Department of Health

POLICY FOR ACTION FOLLOWING INOCULATION INJURY OR EXPOSURE TO BLOOD AND BODY FLUID

FOR PFI PARTNERS

Prevention methods:

- Where safe and effective vaccination is available, staff should be vaccinated against Hepatitis B. Post exposure prophylaxis is available for HIV (see Trust Infection Control Manual). No vaccine is available for Hepatitis C.
Remember that prevention is better than cure!
- If an inappropriately discarded sharp is found, **do not** attempt to pick it up/ dispose of it. This must be immediately reported to the person in charge of department the sharp is found. If this is inappropriate, the supervisor for the area must be informed. Where possible, to prevent injury to others, please seek assistance at the earliest opportunity so that the sharp is supervised until it is safely disposed of.
- Ensure that a supervisor is informed and a HIRS (Hospital Incident Reporting System) form is completed.

What to do if you sustain an inoculation injury:

First Aid

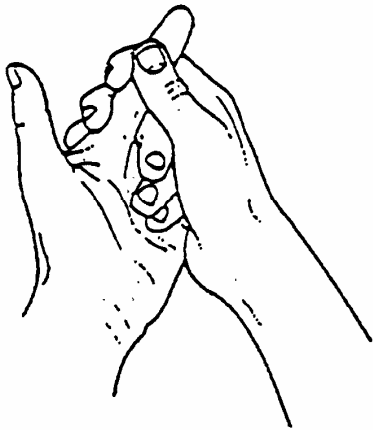
- Wash off splashes on skin with plenty of soap and water;
- If the skin has been punctured or broken, encourage bleeding but without pressing or sucking the wound. Wash the wound under running water and apply a waterproof dressing;
- Splashes to the eye, nose or mouth should be washed out with copious amounts of water (sterile saline for the eye if available);

Reporting

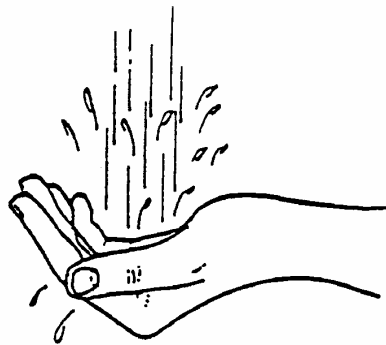
- Report the injury to the Manager/Nurse in charge of the department immediately.
- Report the injury to your line manager/supervisor.
- Report to the Occupational Health Department as soon as possible, Wythenshawe 2674 (8:00am - 4:30pm Monday - Friday.) If closed attend the A&E Department at Wythenshawe Hospital and report to the Occupational Health Department at the next available time.
- A HIRS form must be completed by Quality Monitoring Manager for Sodexo staff. For Atkins Health Asset Management staff the form should be completed by the Contract Manager or Maintenance Manager. The source of contamination, i.e. name of source (*if known*), type of fluid, type of injury and how it occurred should be recorded.

POLICY FOR ACTION FOLLOWING INOCULATION INJURY OR EXPOSURE TO BLOOD AND BODY FLUID**FOR PFI PARTNERS**

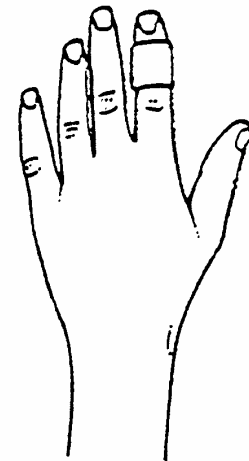
In the case of an injury with a used needle or other sharp, carry out the following procedure:-



b) Encourage bleeding by squeezing.
(Do not press or suck)



b) Wash thoroughly with soap and water.



c) Cover with waterproof dressing