



SDRN: Scottish Diabetes Research Network

Management of Exposure to Needlestick Injuries & Body Fluids

Clinical S.O.P. No.:28

Version 1.1

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DOCUMENT HISTORY

Version number	Detail of purpose / change	Author / edited by	Date edited
1.0	New SOP	Louise Greig	
1.1	Change to SOP title	Louise Greig	June 2012

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1. Introduction

ICH GCP states that “systems with procedures that assure the quality of every aspect of the trial should be implemented.” This SOP details the action to be taken in the event of a needlestick injury or mucocutaneous exposure to blood or body fluids.

2. Objectives

The purpose of this policy is to ensure that all health care workers who experience a needlestick injury, or have a mucocutaneous exposure to blood or body fluids, are aware of the correct action to take to deal with the situation rapidly and appropriately.

3. Background

Percutaneous injury - this is when a needle or other sharp instrument accidentally penetrates the skin.

Mucocutaneous injury - this is when blood or other body fluid splashes into the eyes, nose or mouth or onto broken skin.

There are other potential routes of exposure to blood, or other body fluids, such as bites and scratches.

Needle stick injury is a common occupational hazard among health care workers. Most percutaneous or mucocutaneous injuries arise out of unsafe practices and are thus preventable.

The risk of transmission of infection is lower for mucocutaneous exposure than for percutaneous exposures. In practice only a few agents are known to have been transmitted by needlestick injuries, the most important among which are hepatitis B, human immunodeficiency virus (HIV) and hepatitis C. In theory any infectious agents which may be present in the blood may be transmitted through needlestick with hepatitis B the most easily parenterally-transmitted agent therefore all health personnel at risk of exposure to hepatitis B virus should be vaccinated.

4. Responsibility

It is the responsibility of the individual who sustains a needlestick injury, or mucocutaneous exposure to blood or body fluids, to ensure that they take the necessary action as described below to prevent exposure as a result of injury etc.

The principles of following standard precautions means never assuming that there is no risk and adopt a responsible attitude to preventing such incidents. Good practices should minimize the risk of needlestick injury or mucocutaneous exposure to blood or body fluids to staff.

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Measures to avoid exposure to blood-borne viruses should include -

- Immunisation against hepatitis B.
- The wearing of gloves and other protective clothing.
- Gloves - although a needle or sharp instrument can easily penetrate a glove, the risk of transmission of infection is significantly reduced.
- Eye protection - this is important wherever blood or other body fluids could splash into the eye.
- The safe handling and disposal of sharps.
- Never re-sheath a needle by hand.
- All needles, syringes and sharps must be disposed of into the sharps disposal bins.
- Sharps disposal bins must not be overfilled above the level indicated.
- Bins should be carefully sealed prior to disposal.

5. Procedure - Administering of First Aid

The administration of first aid action will depend on the nature of the exposure and the type of body fluid but as a rule the following action should be taken:

For a needlestick injury –

- If skin is punctured free bleeding should be gently encouraged.
- The wound should be washed under copious amounts of warm running water for at least 2 minutes. The wound should not be scrubbed.
- If necessary cover with a waterproof dressing.

For mucocutaneous exposure to mucous membrane, conjunctiva or non-intact skin -

- Wash the exposed site immediately for 10 minutes with copious amounts of warm water, or normal saline in the case of conjunctival contamination.
- Report the accident to the relevant person and to your occupational health department and complete an Incident Report.

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6. Assessment of Risk of Blood Borne Virus Transmission

In order to assess the level of risk after a needlestick injury or mucocutaneous exposure to blood or body fluids you should consider the following -

- The circumstances of exposure
 - Percutaneous/Mucocutaneous
 - High/low risk
- The source patient status –
 - HIV
 - HCV
 - HBV
- The exposed persons status –
 - HBV immune status
 - Contraindications to PEP for HIV
- The action to be taken in order to minimise the risk of any blood borne virus transmission –
 - Hep B booster/HBIG
 - Post exposure prophylaxis (PEP) for HIV

If a non-immunized member of staff sustains a needle-stick injury from an eAg positive HBV carrier, he/she should be offered Hepatitis B Immune Globulin (HBIG) and a course of vaccine.

If the source is not eAg positive, then a course of vaccine alone would be sufficient.

If there is any possibility of HIV exposure, urgent advice should be sought about the indications for anti-retroviral post-exposure prophylaxis and counselling offered.

7. Reporting of Needlestick Injuries & Mucocutaneous Exposure to Blood And Body Fluids

All exposure incidents should be reported promptly following local reporting arrangements using the correct report forms.

Report the incident to the appropriate person, such as your line manager, and to your employer's occupational health department.

Correct reporting and recording of such incidents ensures that the episode and the circumstances are documented correctly. This is essential for any subsequent investigation of occupational injury or infection.

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8. Follow-up of Potentially Exposed Staff

You should follow-up any blood tests to confirm that occupational blood-borne virus transmission has not occurred.

Anyone who has potentially been exposed should have the risks of acquiring a blood borne virus discussed with them and should be offered appropriate blood testing and follow up.

If a member of staff has been exposed to any blood/fluid borne virus then a blood sample from the exposed person should be sent to a virology or microbiology laboratory for serum to be saved and stored. The purpose of this sample is to be able to show that, in the unlikely event of subsequent seroconversion, the member of staff was not infected at the time of the exposure, and therefore the infection was occupationally acquired.

The exposed person should be given time to talk about their concerns following the incident and discuss the available information about risks from the exposure.

Confidentiality should be assured throughout.