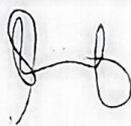


MAYO HOSPITAL, LAHORE		
Policy for the Prevention and Management of Needlestick Injuries and Blood Borne Virus Exposures	Document Reference No.	MHL/IPC/002
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Approvals	Title	Signature
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Policy for the Prevention and Management of Needlestick Injuries and Blood Borne Virus Exposures

1. Introduction

All healthcare workers potentially are at risk from exposure to blood and body fluids. Although it is accepted that not all blood or body fluids are potentially infective, it is recommended that safer sharps device/needle free device and Infection Prevention & Control Standard Precautions be adopted whenever there is the potential for exposure to blood-borne viruses.

Exposure to blood or other potentially infectious body fluids may result in the transmission of blood-borne viruses (BBVs) including HIV, hepatitis B virus (HBV) and hepatitis C virus (HCV).

2. Policy Scope

This policy applies to all staff including nurses, doctors and paramedics employed in the Hospital. It is primarily concerned with occupational risks for health care staff and students after needle stick injury or blood borne virus exposure.

3. Aim of Policy

This policy is intended to ensure that where ever possible prevention of sharps injuries is paramount (necessary). Use of all sharps/needles are risk assessed and where reasonably practicable replaced by a safer sharps device/ needle free device in order to reduce the risk of exposure to blood borne viruses and transmission of these infections following needle stick or other exposures.

4. Duties (Roles and Responsibilities)

All employees have a responsibility to follow policies and procedures and ensure they are educated and trained in the use of all safer sharps devices/needle-free device, and use them safely to reduce the risk of injury to themselves, their patients, colleagues or members of the public.



All Matrons, Sisters/Charge Nurses/Clinical Lead/Laboratory In-Charge must ensure that risk assessments are undertaken and safe systems of work are in place, and that staff have received education and training in the use of any sharps, and safer sharps devices/needle free device. In case of any exposure, following role & responsibilities will be implemented;

Recipient (Healthcare Worker)

1. Inform Nurse In-Charge of clinical area or Lab Supervisor

Nurse In-Charge / Lab Supervisor

1. Ensure protocol is followed and incident form/risk assessment form completed.
2. Relieve staff member from work for immediate follow up.
3. Report injury to Infection Control Department.

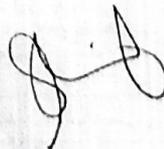
Registrar/Consultant based in clinical area

1. Perform risk assessment of patient.
2. Consent donor for HIV/HBV and HCV antibody tests, contact Infectious Diseases Consultant on-call.
3. Take blood from donor or needlestick injury, send to Hospital Laboratory **urgently, marked needlestick injury donor** and indicate on form that consent was obtained.
4. Contact Hospital Laboratory to advice of lab request.

5. Definitions:

“Medical Sharp” means object or instrument which is used for carrying out activities in healthcare and which is capable of causing injury by cutting or piercing the skin; (Injury includes infection)

“Safer Sharp” means a medical sharp that is designed and constructed to incorporate a feature or mechanism which prevents or minimizes the risk of accidental injury from cutting or piercing the skin



Procedures/Protocols

6. Prevention and Management of Needle stick Injuries and Blood Borne Virus Exposures

6.1. Important Principles of the Risk Assessment Process

I- **Elimination** - working practices should be regularly reviewed to wherever possible eliminate the use of unnecessary sharps.

II- **Engineering controls** – wherever possible medical devices incorporating safety protection mechanisms should be supplied for use e.g. using a Safety-Lock blood collection set in place of a needle and syringe.

III- **Safe Systems of Work** – managers will ensure safe systems of work are in place and staff adheres to the Hospital Waste Management Policy and Procedures

IV- **Personal Protective Equipment** – staff should use appropriate personal protective equipment such as gloves, mask, gown/apron, goggles/glasses for procedures where there is a risk of blood or body fluid exposure.

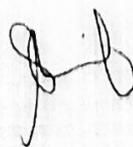
V- **Vaccination** – all staff should be vaccinated (in particular hepatitis B vaccination) where there is a risk of exposure to blood or body fluids.

6.2. Prevention of Blood and Body fluid Exposures

All Matrons/Chief Nursing Superintendent, Sisters/Charge Nurses/Clinical Lead / Lab Incharge will ensure there has been an assessment of risk performed in all ward/department areas, laboratories, and will seek to eliminate risk as far as reasonably practicable (Appendix-A).

6.3. Prevention of Needle stick/Sharp Injuries

All staff who perform work which requires them to use sharps must follow the Guidance for the Prevention of Sharps Injuries and Eye/Skin Splashes (Appendix B).



6.4. **Reporting and Management of Needle stick Injuries**

6.4.1. Potential exposure incidents should be reported on the Hospital Incident Report Proforma/ Risk Assessment Form (Appendix-A).

6.4.2. A risk assessment of all incidents (type of injury and donor risk factors) should be carried out by the most senior clinician available at the time (in relevant clinical area) and sent to the Infection Control Department.

6.4.3. For source patients of unknown serological status, serological testing for blood borne virus infection with informed consent should be done (which will be facilitated by the Hospital/Institute Administration & Hospital Laboratory as well.

6.5. **Post-Exposure Procedures**

6.5.1. Following any exposure:

- Injured Skin & wound should be washed with soap and water without scrubbing it.
- Free bleeding of puncture wounds should be encouraged gently but wounds should not be sucked.
- Exposed mucus membranes, including conjunctivae, should be irrigated copiously with water, before and after removing any contact lenses.
- Record the source of the exposure (patient's name, unit number, etc.) on the Risk Assessment Form (Appendix A).

6.5.2. In office hours, staff must report the injury to the Nurse In-Charge or their supervisor/manager, and then attend the Liver Clinic & HIV Clinic as soon as possible for Consultant advice.

6.5.3. Outside normal working hours, staff must report the injury to the nurse In-Charge of the relevant clinical area and then consult the on-call physician of Medicine Wards or A & E Department for advice on risk assessment & counseling.



6.5.4. In all cases, the Hospital accident/incident record must be completed within 24 hours by the Infection Control Nurse/Floor Supervisor.

6.6. Testing and Counseling

6.6.1. In the hospital setting, testing of the source patient for blood borne viruses should be performed. The patient must be consented for testing. Consent should be recorded within the patient's notes and on the laboratory request form. To arrange for testing of the source specimen contact Hospital laboratory. Forms should indicate that a needle stick incident is involved and that consent has been obtained. Blood samples should be sent to Hospital Microbiology Laboratories for diagnosis of HBV, HCV and HIV infection. Test results should be available ideally within 8 hours and not more than 24 hours after blood is taken.

6.6.2 For patients with known HIV infection, details of past and current antiretroviral therapy should be obtained and on call registrar/physician should be contacted for discussion regarding post exposure prophylaxis.

6.7. Post Exposure Prophylaxis (PEP)

A). HIV infection

1. The exposed healthcare worker will be referred to HIV Clinic regarding Consultant advice about post exposure prophylaxis.
2. Where the HIV status of the source patient is unknown, assessment of possible infectivity will be necessary. This may depend on information from the history, the examination and the results of previous investigations of the patient. Testing the source patient for HIV antibody should be the norm/rule. If the source patient is strongly suspected to be infected with HIV, the health care worker should take PEP until consent has been obtained and the test result is known.



3. If the patient is unable to give consent but is strongly suspected to be infected with HIV, the health care worker should take PEP, if appropriate, until consent has been obtained and the test result is known.
4. PEP is most likely to be effective when initiated as soon as possible (within hours and certainly within 48-72 hours of exposure) and continued for 28 days. PEP is generally not recommended beyond 72 hours post exposure and should only be initiated on the recommendation of an Infectious Disease Consultant.

B). Hepatitis B Infection

1. Following significant exposures/needlestick injury, the source patient should be tested urgently, with consent, for hepatitis B surface antigen.
2. If the source patient is unidentifiable or unavailable for testing, manage as an unknown source exposure.
3. The exposed healthcare worker will be referred to **Liver clinic** for expert advice regarding proper treatment where hepatitis B (HB) vaccination status of HCW and anti-HBs status/results, should be established from existing records or through urgent testing, and hepatitis B prophylaxis given according to HBsAg/Ab status of the source patient and the recipient.
4. Following unknown source exposures, recipients with no history of hepatitis B (HB) vaccination and those who have previously received only one dose of the vaccine, should be referred for an accelerated course of HB vaccine.

C). Hepatitis C

1. Following significant exposures/needlestick injury, the source patient should be tested for Hepatitis C (HCV) antibody.



Appendix-A
Risk Assessment form

Donor Patient: _____

Questions	Yes	No
1) Is this individual/patient HIV positive?		
2) Is this individual/patient a carrier of Hepatitis B?		
3) Is this individual/patient a carrier of Hepatitis C?		
4) Is there a history of recreational drug injection?		
5) Has this individual received plasma products?		
6) Has this individual been resident or worked in an area where Blood borne Viruses are endemic?		
7) Does this individual have multiple tattoos?		
8) Does this individual have multiple piercings?		
9) Does this individual have a disorder which requires transfusions of blood or blood products?		

NOTE: All donors of needlestick injuries must be consented and tested for HIV, HBV and HCV serology. Test results must be available within 8 hours.

1. If YES to Q 1-6: High risk for blood borne virus infection, contact on-call clinical virologist from medical unit /Liver clinic for advice about post exposure prophylaxis (PEP).
2. If YES to Q 7-9: Medium risk, consider PEP but may wait for serology results- contact on-call clinical virologist from medical unit if in doubt.
3. If NO/don't know to all questions: Await serology results of donor patient.

FOR OFFICE USE ONLY

Recipient of Injury _____

Contact Telephone number _____

[Handwritten signature]

[Handwritten mark]

Needle-stick injury

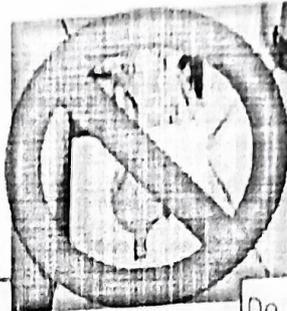
PREVENTION

Do not resheath needles



Plan for safe handling and disposal of needles before giving the injection

Avoid using injections where oral medication can be used



Never leave needles unattended



Do not overfill safety boxes

Avoid passing unsheathed needles between staff

Always dispose of needles appropriately in a safety box

Infection Control Committee KEMU/Mayo Hospital, Lahore

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A handwritten mark or symbol in black ink.