

- Induction Manual IM/VER1
- Infection control Questionnaire
- Training feedback form
- Evaluation form

NEEDLE PRICK INJURY PROTOCOL

Introduction: Any injury sustained as a result of the skin being pierced by sharps used for patients has a potential to cause infection. More than 20 types of infection can occur through this route and HIV, HBV, HCV are considered most important, and needle sharps are major culprits.

AIM: The policy will provide the staff with guidance regarding protocol in case of needle prick injury

RATIONALE:

To protect the staff from infection

To prevent infection

To maintain a record of the incidence of needle stick injuries

PERSONNEL RESPONSIBLE IN THE DEPARTMENTS

Doctors

Nurses

OT In-charge

Infection control nurse

Patient assistants (Wardboys and Ayyas)

Lab technicians

Housekeeping staff

Needle stick injuries are the result of the following:

1. Unsafe injection practices
2. During mutilation
3. During recapping of needles
4. During suturing
5. Movement of Patient
6. Collection of garbage through accidental prick from needles fallen on floor

Risk of infection is greater for pricks from hollow hypodermic needles compared to suturing needles.

| INFECTION | RISK OF INFECTION |
|-----------|-------------------|
| HIV | 0.3% |
| HBV | 30% |
| HCV | 3-10 % |

PREVENTION OF OCCUPATIONAL EXPOSURE:

- * Standard precautions (universal work precautions) and safe practices
- * Wash hands after patient contact
- * Wash hands immediately if hands are contaminated with body fluids
- * Wear gloves when contaminated of hands with body substances is anticipated
- * Protective eyewear and masks should be worn when splashing of body fluids are anticipated
- * Needles should not be bent, or broken by hand
- * Clean and disinfect blood / body substances spills with appropriate disinfectants (e.g.: 1% hypochlorite solution)

BODY FLUIDS TO WHICH UNIVERSAL PRECAUTIONS APPLY:

Blood

Other fluids containing visible blood

Semen

Vaginal secretions

Cerebrospinal fluid (CSF)

Synovial fluid

Pleural fluid

Peritoneal fluid

Pericardial fluid

Amniotic fluid

BODY FLUIDS TO WHICH UNIVERSAL PRECAUTIONS DO NOT APPLY:

The risk of HIV transmission is extremely low or negligible in the following:-

Nasal secretions

Sputum

Sweat

Tears

Urine

Vomitus

Saliva

* Unless these contain visible blood.

SELECTION OF PROTECTIVE BARRIERS:

| TYPE OF EXPOSURE | EXAMPLES | PROTECTIVE BARRIERS |
|--|--|--|
| LOW RISK Contact with skin with no visible blood. | injections | Gloves helpful but not essential |
| MEDIUM RISK probable contact with blood, splash unlikely | vaginal examination insertion or removal of IV cannula, Large open wound dressing Venepuncture, blood spills | Gloves, Aprons Gowns may be necessary |
| HIGH RISK probable contact with blood, splash unlikely uncontrolled bleeding | major surgical procedures Particularly in orthopedic and oral surgery, vaginal delivery | Gloves Water proof gown, apron, Eyewear, Mask |

Steps to be followed after the prick:-

- Remove the offending needle immediately
- Encourage the wound to bleed as much as possible as this will "wash out" a certain number of micro organisms. Squeezing the effected area can help this.
- Wash the part with soap and water immediately
- Apply spirit and bandage.

The above 4 steps are to be followed for all the cases. Further, if the needle was used for a patient, inform immediately to ward in-charge and during emergency hours directly to ICN/Supervisor.

Responsibilities of Infection Control Nurse in relation with Needle Stick Injury

- Takes the full history of injury or exposure
- Note down the department's name, date and time of injury. Time is very important, since PEP, if required, should start within 8 hrs of the prick.
- Check out the history of source of person (HIV, HBV and HCV status) In case the status not known, blood sample is sent urgently to pathology lab and HIV status to be checked urgently to decide about PEP. HBV status of source person is also checked, when the source person is HBsAg positive, the anti-HBsAg titre for the HCV needs to be checked at the earliest.
- If the source is known to have HIV infection then the information on stage of infection and current as well as previous anti-retroviral therapy should be gathered and used in deciding the most appropriate regimen of post exposure prophylaxis (PEP) The status code and exposure is also considered for the PEP decision.
- Counselling of the injured should be done immediately to reduce the anxiety, a small number will require more intensive support. This may involve informal discussions, formal counselling and to make the arrangements for follow-up flexible and to allow ready access to help.

Records: PEP register

POST EXPOSURE PROPHYLAXIS

Introduction:

Health care workers are normally at a very low risk of acquiring HIV infection during management of the infected patient. However, inspite of a low statistical risk of acquisition of HIV, absence of a vaccine or effective - curative treatment, makes the health care worker apprehensive. So, it is necessary to have a comprehensive programme to deal with anticipated accidental exposure.

The risk of infection varies with type of exposure and other factors such as:

- The amount of blood involved in the exposure
- The amount of virus in patient's blood at the time of exposure
- Whether post exposure prophylaxis was taken within the recommended time

Prevention is mainstay of the strategy to avoid occupational exposure to blood/body fluids. All the bio safety precautions emphasized must be practiced at all times when handling patient's blood and body fluids.

AIM: The policy will provide the staff with guidance regarding protocol in case of needle prick injury.

RATIONALE:

- To protect the staff from infection
- To prevent infection
- To maintain a record of the incidence of needle stick injuries

PERSONNEL RESPONSIBLE IN THE DEPARTMENTS

- Doctors
- Nurses
- OT Incharge
- Infection control nurse
- Patient assistants (wardboys and Ayyas)
- Lab technicians
- Housekeeping staff

Category of treatment:-

BASIC REGIMEN

Indication: - Occupational HIV exposure for which there is a recognized risk.

Drug Regimen:-

ZIDOVUDINE (AZT) 600mg in divided doses (300mg/twice a day or 200mg/thrice a day) for 4 weeks.

LAMIVUDINE (3TC) 150mg twice a day.

Time duration: 4 weeks.

EXPANDED REGIMEN

Indication:-

Occupational HIV exposure that poses an increased risk of transmission(eg:larger vol.of blood or higher virus titre in blood.)

Drug Regimen:-

BASIC REGIMEN + either INDINAVIR 800mg /thrice a day or any other protease inhibitor.

Time Duration: 4 weeks

Follow - up:-

Workers with possible exposure to HIV, HBV and HCV Infection should undergo HIV antibody, HCV antibody, HBsAg testing for atleast one year.

- First follow up:- At The Time Of Exposure
- Second follow up:- 6 Weeks after Incidence
- Third follow up:- 12 Weeks after Incidence
- Fourth of Last follow up:- 1 year after the first exposure

Records: PEP register