

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.

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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:-

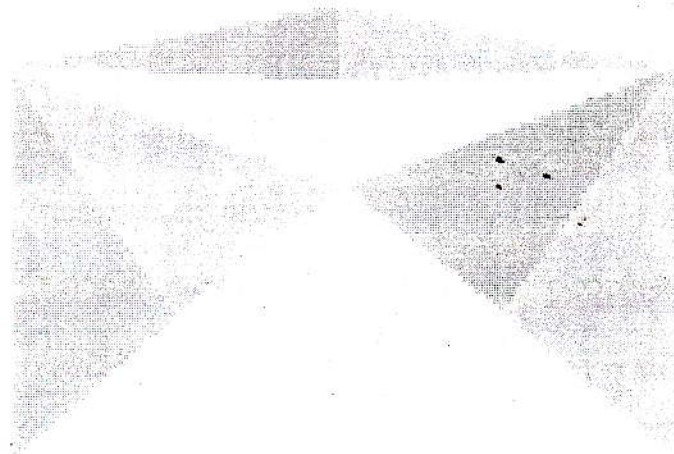
- Remove the offending needle immediately
- Encourage the wound to bleed as much as possible as this will "wash out" a certain number of micro organisms. Squeezing the effected area can help this.
- Wash the part with soap and water immediately
- Apply spirit and bandage.

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



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## 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:-

## HIC - Hospital Infection Control & Biomedical Waste Management

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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

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## INFECTION CONTROL MEASURES

**AIM:** To maintain standards in infection control measures and minimize hospital acquired infections

**RATIONALE:** labelling and segregation of individual patient items will prevent accidental exchange of patient care items, labelling of invasive lines help the staff to know when the articles have to be changed, maintaining equipment in a neat and clean way minimises spread of infection and helps in ward organization.

### General instructions to nurses:

- 1) Airways of patients are to be kept separately in a plastic bag. (STRICTLY DO NOT keep airways in injection tray or any other place)
- 2) Airway plastic bag has to be labelled with patients name
- 3) Bedside injection tray of patient has to be cleaned (inside and outside) with spirit swab. Injections have arranged neatly and any loaded syringe should be labelled.
- 4) For every round of suctioning (oral as well as tracheostomy) NEW,STERILE cannulas must be used.
- 5) suctioning bottles should be labeled "ORAL" or "TRACHEOSTOMY" and should never NEVER interchange the bottles.
- 6) Wear masks in OT,ICU and RICU. All nurses should have masks with them at all time.

- 7) ALL invasive cannulas, tubings must be labeled with date of insertion.
- 8) Foleys catheter should be changed after 7 days and silicon one put after that.
- 9) IV line/ vasofix should be changed after 48hrs. Must be labeled with patients name and date.
- 10) NG tube must also be dated. It should be kept clean and clear at all times. NG /RT tube has to be flushed after every feed/aspiration.
- 11) Plastic basins should be disinfected with savlon/dettol after giving sponge bath to patient.
- 12) All solution bottles, e.g.: spirit, betadine etc should be labeled.
- 13) Chittal forceps should be sent for autoclaving sterilisation every week, and savlon should be changed and labeled with date.
- 14) Collect all needles in needle box (do not throw glucostrips, cotton in needle box)
- 15) Damp bacillocid dusting of equipment must be done every morning.