

# Group-5: Needle Stick Injury

Dr. Raja S

Dr. Chenthilnathan

Dr. Maheswari

Mr. Arul

Mr. Parameswaran

Mr. Karthigeyan

Mrs. Beulah bai

Mrs. Jeyaseeli

Reviewed By :

Dr. Lallu Joseph

Dr. Joseph Fidelis

Dr. Babu Narayan

# Occupational exposure

- Percutaneous injury (e.g., **needle stick or cut with a sharp instrument**);
- Contact with the **mucous membrane of the eye or mouth**;
- Contact with **non-intact skin** (particularly when the exposed skin is chapped, abraded, or afflicted with dermatitis);
- Contact with the **intact skin when the contact duration is prolonged** (e.g., several minutes or more) with blood or other potentially infectious body fluids.

# **Infectious specimen for needle stick, sharp and splash injury:**

- *Potentially infectious body fluids* include blood, semen, vaginal secretions, CSF, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid or other body fluids contaminated with visible blood.
- *The following are not considered potentially infectious*, unless visibly contaminated with blood: Faeces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus.

# **Hazards of Needle stick Injuries**

HBV (5-30%), HCV(3-10%) and HIV(0.3%) viral infections can spread by  
Needle stick Injuries

# When do these injuries occur?

While Doing Procedure / Iv Line/Drawing Blood

Disposing Sharps

Suturing

Pre-operative

Giving Injection

Prick By Others

Recapping The Used Needle

Needle Poke From Garbage

Needle Not Disposed After Procedure

Lumbar Puncture / Bone Marrow

While Removing The Blade From Scalpel

Sterile Needle/Splash

# Who gets injured?

- Nurses
- Doctors
- Operating room personnel
- Emergency room personnel
- Technicians
- Laundry handlers
- Housekeeping attendants

# Which devices are involved?

- Hypodermic needles
- Blood collection needles
- Suture needles
- Needles used in IV delivery systems
- Scalpels



## Precautions while handling sharp objects (like needles, lancets, scalpels, etc.):

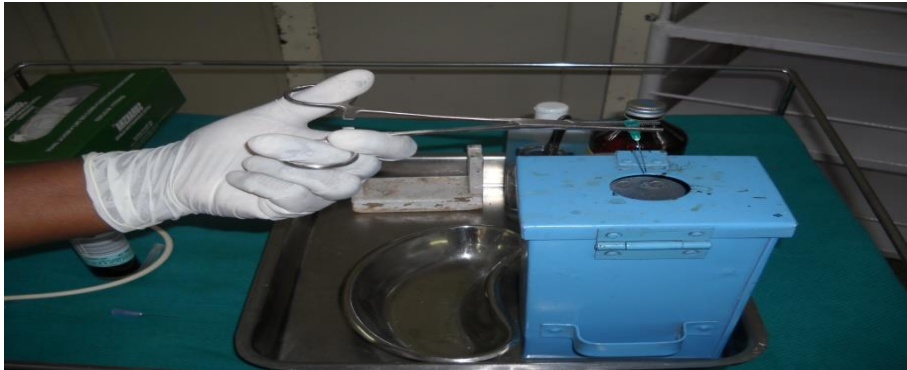
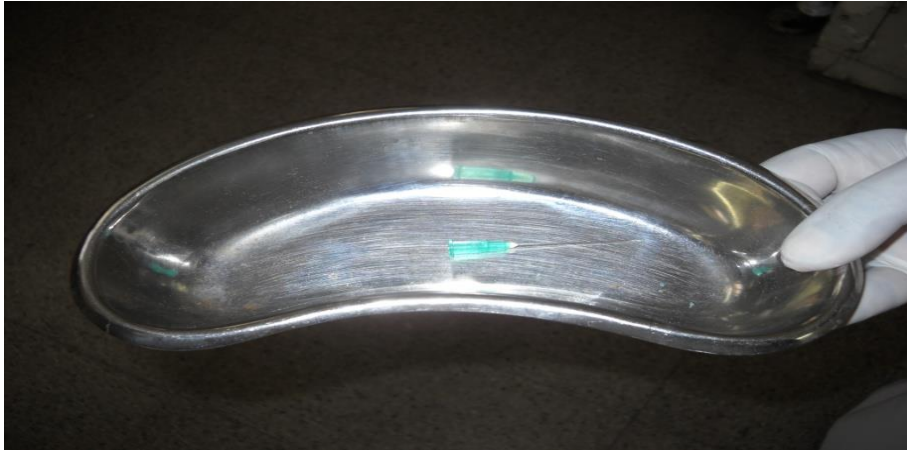
- Avoid unnecessary use of sharps and needles. Use of alternative instruments, cutting diathermy, and laser.
- Disposable needles should be used.
- Handle hollow bore needles with care as it may lead to deep injuries
- Never recap needles- If unavoidable, use single hand-scoop technique
- Never break/bend needles by hand
- Needles/sharps should not be left on trolleys and bed side tables and must be disposed of immediately
- Never pass used sharps from one person to another directly
- Dispose sharps in a puncture resistant container containing 10% sodium hypochlorite solution



# DONT' s



# DO's



# Principles

- **Avoid recapping** needles.
- Before beginning any procedure using needles, **plan for safe handling and proper disposal**.
- Help your employer select and evaluate devices with safety features.
- **Use devices with safety features**.
- **Report all needle stick** and other sharps-related injuries

# Dos and Don'ts for the Exposed Individual

Don'ts	Do's
<ul style="list-style-type: none"><li>• <b>Do not panic</b></li><li>• <b>Do not place the pricked finger into the mouth reflexively</b></li><li>• <b>Do not squeeze blood from wound</b></li><li>• <b>Do not use bleach, alcohol, iodine, antiseptic, detergent, etc.</b></li></ul>	<ul style="list-style-type: none"><li>• Stay calm</li><li>• Remove gloves, if appropriate</li><li>• Wash exposed site thoroughly with running water and soap. Irrigate thoroughly with water, if splashes have gone into the eyes or mouth</li><li>• Consult the designated physician/personnel immediately as per institutional guidelines, for management of the occupational exposure.</li></ul>

### For skin:

- **Immediately wash the wound and surrounding skin with water and soap, and rinse.**
- **Do not scrub.**
- **Do not use antiseptics or skin washes**

### For the eye:

- Immediately irrigate the exposed eye thoroughly with running tap water or normal saline at least for 5 min for blood splash (15 min for chemical splash).
- If wearing contact lenses, leave them in place while irrigating.
- Once the eye is cleaned, remove the contact lens and clean them in a normal manner.
- Do not use soap or disinfectant on the eye.

### For mouth:

- Spit fluid out immediately.
- Rinse the mouth thoroughly using water or saline and spit again. Repeat the process several times.
- Do not use soap or disinfectant in the mouth.

# To do

- **First aid**
- Check online report of source status if available
- If source of person is HIV +ve , take the first dose of PEP
- **Report to designated centre for NSI management**
- Testing for HIV, HBV and HCV for source and HCW
- Risk assessment (based on type of injury and source status)
- Decision on prophylactic treatment for HIV and HBV
- Monitoring and follow up of HIV, HBV, and HCV status
- Documentation and recording of exposure





**THANK YOU**