

## PROJECT PRAKASH

### KEY LEARNING POINTS

**Training:** Hepatitis Induction Program

**Topic:** Needle Stick Injury & Post Exposure Prophylaxis

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**Period:** 2021 - 2022

**Attendees:** In-Service Nurses

Needle-stick and sharp Injuries (NSIs) are accidental skin penetrating wounds caused by sharp instruments in a medical setting. NSI is one of the most common causes of occupational injury.

#### ✚ Safe handling of needles

- Use safety syringes with a sharps injury protection (SIP) feature as recommended by WHO.
- DO NOT Recap needles

#### ✚ Safe Injection Practices

- Needles and syringes are **single use devices**.
- Do not administer medications **from a single-dose vial or IV bag to multiple patients**.
- Limit the use of multi-dose vials and dedicate them to a **single** patient whenever possible.
- Always use **aseptic technique** when preparing and administering injections.

#### ✚ Safe disposal of needles and sharps

- Place them uncapped into a sharp's container immediately
- Dispose sharps in approved puncture proof containers.
- Never open a safety box.
- Never fill a safety box more than three-quarters full.

✚ WHO recommends that all HCWs should be **vaccinated** against hepatitis B.

#### ✚ Adult Hepatitis B Vaccine Schedule:

- 3 dose vaccine series: at 1, 2 and 6 months.
- A post-vaccination anti-HBs titre of **≥10 mIU/mL** is considered as "positive" or "reactive".

#### ✚ Post Exposure Prophylaxis

- First aid management
- Inform your supervisor and follow the NSI reporting mechanism of your health facility
- Identify the source patient, who should be tested for HIV, hepatitis B & C infections
- Tests should be carried out after patient consent.
- Get tested for HIV, hepatitis B, and hepatitis C infections.

### Post exposure testing for HCP after occupational percutaneous or mucosal exposure to blood or body fluid

Exposed Person	Postexposure testing	
	Source patient (HBsAg)	HCP testing (anti-HBs)
Documented responder after complete series	Not indicated	Not indicated
Documented non-responder after two complete series	Yes	Not indicated
Response unknown after complete series	Yes	Yes
Unvaccinated/incompletely vaccinated or vaccine refusers	Yes	Not indicated

### Do's & Don'ts in case of a NSI encounter

DO's	DON'T's
<ul style="list-style-type: none"> <li>Remove gloves, if appropriate.</li> <li>Wash wound site thoroughly with running water and soap.</li> <li>Irrigate thoroughly with running water or distilled water if splashes have gone into the eye or mouth.</li> <li>Spit out any fluid - rinse the mouth with water and spit it out again.</li> </ul>	<ul style="list-style-type: none"> <li>Do not panic!</li> <li>Do not reflexively place pricked finger into mouth.</li> <li>Do not squeeze blood from wound, this cause trauma and inflammation, increasing risk of infection transmission</li> <li>Do not apply alcohol, betadine or any other chemical on the wound surface as this may further increase trauma.</li> </ul>

### Post Exposure Prophylaxis for HIV & HCV

HIV	HCV
<ul style="list-style-type: none"> <li>A 28-day course of a combination of three antiretroviral drugs determined on a case-by-case basis.</li> <li>Act as quickly as possible, preferably within hours to initiate prophylaxis.</li> </ul>	<ul style="list-style-type: none"> <li>In case source is HCV positive test of HCW is recommended for anti HCV antibodies and baseline serum ALT test.</li> <li>Follow up recommended at 1, 6 months and one year by anti HCV antibody test.</li> <li>Refer to a hepatologist.</li> </ul>

### Post Exposure Prophylaxis for HBV

Exposed Person	HBsAg- positive/unknown	HBsAg-negative
<b>Documented responder after complete series</b>	No treatment	No treatment
<b>Documented non-responder after two complete series</b>	HBIG x 2 one month apart	No treatment
<b>Response unknown after complete series</b>	Test for anti-HBs 1. If inadequate, HBIG X 1 plus initiate revaccination 2. If adequate, no treatment	Test for anti-HBs 1. If inadequate, initiate revaccination 2. If adequate, no treatment
<b>Unvaccinated/incompletely vaccinated or vaccine refusers</b>	HBIG X 1* & complete Hepatitis B vaccination	Complete Hepatitis B vaccination

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