HOSPITAL INFECTION CONTROL-KASTURBA MEDICAL COLLEGE HOSPITAL,

ATTAVAR MANGALORE

POST EXPOSURE PROPHYLAXIS GUIDELINES FOR OCCUPATIONAL EXPOSURE

Definition of occupational exposure:

An occupational exposure that may place a worker at risk of HIV/HBV/HCV infection is a percutaneous injury, contact of mucous membrane or contact of skin (especially when the skin is chapped, abraded or afflicted with dermatitis or the contact is prolonged or involving an extensive area) with blood, tissue or other body fluids

Steps to be taken after occupational exposure:

Immediate measures following an exposure:

- Needle sticks and cuts should be washed with soap and water.
- Splashes to the nose, mouth or skin should be flushed with clean water.
- Eyes should be irrigated with clean water or saline.
- Pricked finger should not be put into the mouth.
- Do not use antiseptics or squeeze the wound.
- Report the exposure immediately to duty medical officer (DMO) in casualty.
- PEP should be started as soon as possible. There is no role for PEP beyond 72hrs after exposure.

PEP for HIV exposure

- CMO should fill up the PEP form provided in the casualty placed in Attavar Hospital.
- CMO should note down the details of exposure and send all investigations as mentioned in the PEP form.
- PEP should be combination of at least 3 anti-retroviral drugs.
- DMO is authorized to start PEP but can give prescription for only 3 days.
- PEP drugs will be provided free of cost in hospital pharmacy for all the hospital employees.
- HCW should be warned about potential side effects of PEP drugs and should report immediately to infection control officer.
- Only Infection control officer has to authorize full course of PEP.
- Total duration of PEP is for 28 days
- HIV ELISA for exposed
- HCW should be repeated at 6 weeks and 12 weeks after exposure.
- During the course of PEP HCW should use barrier method of contraception.
- Casualty in-charge nurse should hand over PEP forms to infection control nurse.
- Infection control nurse should periodically document and audit all exposures.

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Decision to start PEP following an exposure to potential HIV positive patient should be based on below table.

EXPOSURE RISK	SOURCE	RECOMMENDATION
1. Skin and mucosal contact		
Intact skin	HIV positive or unknown	No prophylaxis
Intact mucosa Abraded skin/mucosa with brief/small exposure	HIV positive or unknown*	PEP
Abraded skin/mucosa with prolonged / large exposure	HIV positive or unknown*	PEP
2.Needle stick injury		
Solid needle/ superficial injury	HIV positive or unknown*	PEP
Hollow needle /deep injury	HIV positive or unknown*	PEP

*Decision to start PEP should be done in consolation with infection control officer.

PEP regimen

- Tenofovir disoproxil fumarate(TDF) 300 mg + Emtricitabine 200mg 1-0-0

Or

- Tenofovirdisoproxil fumarate(TDF) + Lamivudine 150mg 1-0-1

+

- Atazanavir +ritonavir(ATV/r) (300+100) 0-0-1(with food)

Or

- Raltigravir 400mg 1-0-1**

**** Raltigravir can be started if HCW has contraindication for ARV/r**

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Post exposure prophylaxis (PEP) and Vaccination against Hepatitis B exposure

- All HCW should be vaccinated against Hepatitis B virus
- Schedule - 0, 1, 6 months.
- Dose- Adults - 1 ml , Children (<19 years) - 0.5 ml
- Site and route- IM Deltoid (should not be administered in the gluteal region). Children less than 1-year-old on anterio lateral thigh.
- Anti HBsAG titer should be tested 1-2 months after 3rd dose of vaccine.
- HCW with anti HBsAg titre >10 mIU/ml is considered a responder. Responders need not be further vaccinated or tested for Anti HBsAg titer.
- Anti HBs titre is <10million mIU/mL after 3 doses of vaccine, repeat vaccine series should be initiated. Anti HBs titres are still <10mIU/ml even after second series of vaccination, HCW is considered non responder.
- Non responder should he reoffered to Infection control and management Department for further management.
- **PEP for hepatitis C exposure**

Recommendation for post exposure prophylaxis (PEP) for exposure to Hepatitis B

Source	Unvaccinated	Vaccination and immune status		
		Anti HBs Ag titer > 10mIU/ml	Anti HBs Ag titer < 10mIU/ml	Unknown
HBsAg positive	Initiate vaccination and HBIG	No treatment	Vaccinate and administer HBIG	Vaccinate and administer HBIG
HBsAg negative	Initiate Vaccination	No treatment	No treatment	No treatment
Unknown	Initiate Vaccination	No treatment	If high risk source – vaccinate and administer Hepatitis B immunoglobulin(HBIG)**	Test anti HBsAG titer • >10 m IU- No treatment • <10 m IU- Vaccinate

*HBIG - Hepatitis B Immunoglobulin, Dose - 0.06 ml/kg ,IM

** Contact infection control officer if ready vaccinated.

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Post exposure prophylaxis (PEP) and Vaccination against Hepatitis C exposure

- HCV viral load should be done 4-6 weeks after exposure.
- If positive, HCW should be referred to Gastroenterology department or Medicine department for further management.