POST-EXPOSURE PROPHYLAXIS (PEP) AFTER POSSIBLE HIV EXPOSURE (Occupational)

Healthcare workers may be exposed to blood and other potentially infectious substances during their professional activities, placing them at risk of infection with blood-borne pathogens (HIV, Hep B, Hep C).

First aid/Immediate management: wash/clean wound or affected skin/mucous membranes, and seek urgent medical evaluation (CVIS clinic on weekdays during working hours; ED if evening or weekend)

Risk assessment: Assess risk of transmission of blood-borne pathogen to exposed HCW based on:

- **Type of exposure**:
  - At risk exposure**:** contact with ***non-intact* skin** (laceration, open wound, mucous membranes) **or *needlestick injury***. Exposure of only *intact* skin (without a breach), even to potentially infectious material, is not a risk factor for transmission.
  - Potentially infectious substances: **blood, tissue, CSF, semen, vaginal secretions**. Urine, sweat, stool, saliva (including human bites), nasal secretions, tears and sputum have very low or negligible risks of transmission, unless visibly bloody.
- **Source of exposure:** Risk categories for HIV transmission are as follows:

Risk	Examples (for source patient)
Substantial	• HIV positive and viremic (VL > 40 copies/mL) • HIV status unknown but from a population with high HIV prevalence compared with general population (MSM, drug-injection)
Low but non-negligible	• HIV positive but believed to have VL < 40
Negligible or none	• Confirmed HIV negative • HIV status unknown but part of the general population

Recommended investigations for exposed HCW:

Test	Baseline*	Week 2	Week 12
CBC	x	x	
Creat	x	x	
ALT	x	x	
Pregnancy test *(if applicable)*	x		
HIV serology	x		x
Hep B screen (sAg, sAb, cAb)	x		
Hep C Ab	x		x
Hep A total Ab	x		

* As soon as possible after exposure

POST-EXPOSURE PROPHYLAXIS (PEP)

To be started **as soon as possible after exposure;** should **NOT be delayed** pending serological or virological testing results. If presents >72h after exposure: PEP not recommended but evaluation still warranted.

Category	**RECOMMENDATION:**
Substantial risk of HIV transmission ***OR*** **Low but non-negligible risk of HIV transmission (after discussion with HCW)**	**Biktarvy** (Bictegravir 50 mg/Emtricitabine 200 mg/Tenofovir alafenamide 25 mg): 1 tab PO die x 28 days ***OR*** **Truvada** (Tenofovir disoproxil 300 mg/Emtricitabine 200 mg) 1 tablet PO die **WITH** **Dolutegravir** 50mg po die x 28 days If pregnant or planning a pregnancy in the next 28d: Truvada (Tenofovir disoproxil 300 mg/Emtricitabine 200 mg) 1 tablet PO die **WITH Dolutegravir 50mg po die** x 28 days
If exposed HCW not vaccinated for Hep B **Source: HepBsAg positive or unknown** **Source: HepBsAg negative**	 HBIG 0.06mL/kg IM AND initiate Hep B* vaccination Initiate Hep B* vaccination (HepA/B vaccine if non-immune to Hep A)
If exposed HCW vaccinated for Hep B **Hep B sAb <10 units/mL** **Hep B sAb > 10 units/mL**	 HBIG 0.06mL/kg IM *AND* one dose Hep B* vaccine No therapy necessary
If source Hep C Ab positive	Referral to CVIS

Additional Notes:

*If non-immune to Hep A, can give Hep A/B vaccination instead of Hep B only

If eGFR < 30 mL/min, significant hepatic impairment or significant drug interactions, consult Chronic Viral Illness Service.

For accidental needle exposure protocol : Click here

REFERENCES: https://www.cmaj.ca/content/cmaj/189/47/E1448.full.pdf

Drafted by B.Lemire CVIS pharmacist
Review by F.Bourdeau pharmacist, Dr M.Semret (ID), Dr Nadine Kronfli (ID-CVIS), Dr Marina Klein (ID-CVIS)

Approved by the ASP MUHC committee on 2023-06-21
Approved by the MUHC P&T committee on 2023-08-23