2015 Guidelines for Occupational HIV Post Exposure Prophylaxis (PEP)

PEP should be initiated immediately. Don't wait for laboratory results before initiating

Step 1: IMMEDIATE MANAGEMENT OF HEALTH CARE WORKER (HCW)

- Wash injury area thoroughly
- Notify appropriate staff health officer
- Administer first dose of chosen PEP regimen, if indicated (see Table 1 and 2)

Step 2: MANAGEMENT OF HCW

- HCW Tests - Refer to Table 4
- HCW must receive thorough, confidential, pre-test counselling before HIV testing
- Baseline HIV test – Rapid test(s), and then confirm with HIV antibody laboratory test (4th generation ELISA)
- PEP is not indicated if HCW tests HIV positive at baseline
- Post-test counselling and results should be handled in a strictly confidential manner
- If HIV testing is refused, PEP can still be offered, provided that the HCW has been informed about the risk of developing resistance to ARVs and possible loss of the right to compensation

Step 3: TESTING SOURCE PATIENT

- If status unknown, source patient should be tested for Hepatitis B and C, syphilis, and HIV with rapid test(s), and then confirm with HIV antibody laboratory test that includes the P24 antigen (known as the 4th generation ELISA)
- Source patient should not be tested for HIV without pre-test counselling and informed consent
- If consent is refused there are 2 options:
    - HIV test can be offered anonymously;
    - If there is an existing blood specimen, the HIV test can be done anonymously, after informing the source patient. Anonymous testing means that the blood sample will not be labelled with the source patient's details, thus the result can't be connected to the source patient
- Stop PEP if the source patient's HIV test is confirmed to be negative

Step 4: PEP

- PEP should be initiated as soon as possible, if indicated (see Table 1). Don't wait for test results of the HCW or source patient. If source patient is found to be negative after laboratory test, then PEP can be discontinued
- The benefit of administering PEP more than 72 hours after exposure is not clear. If HCW presents late, seek expert advice
- Continue PEP for 28 days

Step 5: FOLLOW UP AND MONITORING

- Ongoing psychosocial support is required
- HIV tests should be repeated at 6 weeks and 4 months post exposure using a laboratory antibody test (Refer to Table 4)
- HCW should be counselled to practice safe sex (use condoms) until a negative result on the HIV test at 4 months, is confirmed
- Side effects should be actively sought and managed

Does the Health Care Worker need PEP?

- Careful risk-benefit assessment needs to be done before initiating PEP, as the antiretroviral drugs can cause serious side-effects
- Infectious body fluids pose a risk of HIV and include blood, semen, vaginal secretions and amniotic, synovial, pleural, pericardial, peritoneal and cerebrospinal fluid
- Saliva, tears, vomitus, sweat and urine pose no risk of HIV, unless blood-stained

Table 1: Does the HCW need PEP?

Exposure	HIV Status of Source patient	
	Negative	Unknown or Positive
Intact skin	no PEP	no PEP
Mucosal splash/Non-intact skin	no PEP	3-drug regimen
Percutaneous injury	no PEP	3-drug regimen

Which PEP regimen?

Table 2: PEP regimens

Choose one NRTI dual regimen and one PI-combination/Integrase inhibitor

NRTI dual regimen		PI-combination/Integrase inhibitor
Tenofovir 300mg + emtricitabine 200mg 1 tab daily **OR** Tenofovir 300mg 1 tab daily PLUS lamivudine 300mg 1 tab daily **OR** Lamivudine 150mg + zidovudine 300mg 1 tab 12 hourly	+	Atazanavir 300mg + ritonavir 100mg daily **OR** Aluvia® (lopinavir/ritonavir 200/50 mg) 2 tabs 12 hourly **OR** Raltegravir 400mg 12 hourly

Special prescriber's points:

- Tenofovir is better tolerated than zidovudine
- Fixed-dose combinations preferred
- Atazanavir + ritonavir is given once daily and is better tolerated than Aluvia®
- Raltegravir preferred if PI not tolerated, or if drug interactions are problematic, or if PI resistance suspected
- Limited data on safety of raltegravir in pregnancy and lactation

Note: Nevirapine and abacavir should be avoided in PEP. If source patients are on a third line regimen or salvage therapy or are failing second line, other ARVs may need to be considered and consultation with an Infectious Disease Specialist or the Hotline is needed.

Need help?
Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline at 0800 212 506 / 021 406 6782
Alternatively send an SMS or "Please Call Me" to 071 840 1572

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Table 3: Possible side-effects of antiretroviral treatment

Atazanavir/ritonavir	Generally well tolerated. Jaundice with unconjugated hyperbilirubinemia occurs commonly, but is benign; hepatitis
Emtricitabine/Lamivudine	Generally well tolerated
Lopinavir/ritonavir	Diarrhoea, nausea, vomiting, hepatitis
Tenofovir (TDF)	Generally well tolerated. Nausea, diarrhoea, vomiting, nephrotoxicity
Raltegravir (RAL)	Generally well tolerated. Nausea, fatigue, Stevens-Johnson syndrome
Zidovudine (AZT)	Nausea, vomiting, headache, fatigue, anaemia, neutropenia

Note: Side-effects should be managed actively, and the regimen changed, if needed

Table 4: Tests to perform

Test	Source patient	Exposed health care worker			
	Baseline	Baseline	2 weeks	6 weeks	4 months
HIV	Rapid test(s) PLUS 4th generation ELISA	Rapid test(s) PLUS 4th generation ELISA		4th generation ELISA	4th generation ELISA
Hepatitis B	Surface antigen	Surface antibody*			
Hepatitis C	HCV antibody	HCV antibody*		HCV PCR*	
Syphilis	RPR/TP antibody	RPR/TP antibody*			RPR/TP antibody*
Serum creatinine		If TDF part of PEP	If TDF part of PEP		
FBC		If AZT part of PEP	If AZT part of PEP		

*Only if source patient was positive

Special Considerations:

Pregnancy

- PEP is not contraindicated in pregnancy

Breastfeeding

- The decision to continue to breastfeed while on PEP should be discussed with the HCW
- PEP is believed to be safe during breastfeeding, although some drugs taken during PEP are transmitted through the breast milk
- If the HCW is infected with HIV, the risk of transmitting HIV during this early stage of infection is high. Alternatives to breast milk can be considered if it is acceptable, feasible, affordable and sustainable

Window period

- PEP is not indicated if the source patient is HIV negative
- The window period is the period between initial HIV infection and development of HIV antibodies. When using the 4th generation ELISA, the window period is decreased to ± 18 days
- No case has been reported in the United States, of a HCW being infected while the source patient was in the window period
- Only if clinical features of the acute retroviral syndrome are present (fever, lymphadenopathy, sore thoat, rash, oral and/or genital ulcerations), consider PEP

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