

Post-exposure prophylaxis (PEP) treatment

Updated guidance for Inter Agency Reproductive Health Kit 3

Introduction

The post-exposure prophylaxis (PEP) antiretroviral (ARV) medicines in the Inter-Agency Emergency Reproductive Health Kit 3 were changed in 2016, based on WHO evidence-based recommendations.

This updated guidance* describes the new recommended PEP protocol for the prevention of transmission of the human immunodeficiency virus (HIV) in the management of survivors of rape. It is to be used by qualified health care providers (medical doctors, clinical officers, midwives, nurses and health counsellors) who are responsible for medical care of survivors of rape.

This guidance is complementary to national post-rape care protocols or to the *guidelines for clinical management of survivors of rape*¹. In addition to PEP, rape survivors must also be offered other appropriate confidential medical care, including emergency contraception, STI presumptive treatment, supportive counselling and referral for further crisis intervention.

Background information

In December 2014, WHO released updated guidelines on post-exposure prophylaxis for HIV, which includes a new set of recommendations for PEP². The new recommendations aim to simplify PEP prescribing and improve adherence and completion rates by recommending better tolerated drugs. Recommendations for PEP are also aligned with recommendations for antiretroviral treatment (ART) as a way to simplify procurement and improve access.

Prescribing PEP

- WHO recommends that although an HIV post-exposure prophylaxis regimen with *two* antiretroviral drugs is effective, the preferred preventive treatment consists of *three* ARV drugs, to be taken once a day (adults and adolescents) or twice a day (children) for 28 days.
- Data from animal studies suggest that the efficacy of PEP in preventing transmission is time dependent. Every effort should be made to offer and initiate post-exposure prophylaxis as soon as possible following exposure that has the potential for HIV transmission and ideally **within 72 hours**.
- Tenofovir (TDF) + lamivudine (3TC) are recommended as the preferred backbone regimen for PEP among *adults and adolescents*, and atazanavir/ritonavir (ATV/r) is the recommended third drug.

* This guidance is adapted from the 2007 UNHCR / UNFPA RH Kit 3B guidance, the WHO 2014 [Guidelines on post-exposure prophylaxis for HIV and the use of co-trimoxazole prophylaxis for HIV-related infections among adults, adolescents and children: recommendations for a public health approach](#), and MSF [Medical Protocol for Sexual Violence Care, 2nd edition, 2014](#)

¹ [“Clinical management of rape survivors, developing protocols for use with refugees and internally displaced persons”](#), World Health Organization, UNHCR, UNFPA, 2004

² [“Guidelines on post-exposure prophylaxis for HIV and the use of co-trimoxazole prophylaxis for HIV-related infections among adults, adolescents and children: recommendations for a public health approach”](#), World Health Organization, 2014

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- Zidovudine (ZDV or AZT) + lamivudine (3TC) are recommended as the preferred backbone regimen for *children 10 years and younger*, and lopinavir/ritonavir (LPV/r) is the recommended third drug.
- If the regimen indicated in these guidelines is not available, start with drugs that are immediately available. Ideally this should be 2 nucleotide reverse transcriptase inhibitors (NRTIs) + 1 protease inhibitor (PI). If a PI is not available, prescribe 2 NRTIs, as indicated in the table.
- **No baseline laboratory tests are needed to start PEP.** If available, the following tests can be helpful: *haemoglobin level* to detect anaemia, *ALAT* to assess a clinical suspicion of hepatitis, *creatinine clearance* in patients with diabetes, hypertension, renal dysfunction or receiving nephrotoxic drugs (including NSAIDs).
- **Prescribing PEP must never be made conditional on the survivor agreeing to have an HIV test.** All survivors should be offered voluntary counselling and HIV testing. HIV testing is not mandatory. Survivors who cannot or do not want to undergo HIV testing and who are not already known to be HIV -positive, PEP can be initiated and HIV-testing can be addressed again at a follow-up visit. A 28-day PEP treatment is not expected to do harm in someone of unknown HIV status who is actually HIV-positive.
- Survivors who are known or found to be HIV-positive should not be offered PEP. While it is not likely to do harm, there is no expected benefit. Such people should be counselled and referred to appropriate services for providing care for people living with HIV, such as antiretroviral treatment (ART), prevention of opportunistic infections and supplementary feeding.
- PEP is not contraindicated for pregnant women. Pregnant women must be referred for appropriate antenatal care because the pregnancy is at risk after a rape. PEP in breastfeeding women is not contraindicated, but the risks and benefits of continuing breastfeeding while the risk of HIV transmission is not known should be discussed with the mother
- A **full 28-day prescription** of ARVs should be provided following initial risk assessment.
- It is recognized that victims of sexual assaults have a higher rate of therapy defaulting than HIV patients receiving ART. Adherence to the prescribed regime is difficult: **Enhanced adherence counseling is of paramount importance.**

Survivors reporting after 72 hours:

- Survivors reporting after 72 hours of the incident should be counselled about the possible risk of transmission and should be encouraged to undergo HIV testing 3 months following exposure.

Adverse effects

- Nausea, vomiting, headache. While uncommon and not very serious, these effects may compromise treatment adherence. Inform the person that they may occur and stress the importance of continuing the treatment.
- Atazanavir may cause jaundice; this is not due to hepatitis and the drug can be continued.

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- Tenofovir (TDF) is contraindicated in a patient with pre-existing renal impairment (creatinine clearance <50 ml/min). However, short term administration (28 days) is unlikely to cause significant renal toxicity. If creatinine testing is not available, avoid use in case of diabetes, hypertension and in patients receiving nephrotoxic drugs.
- Avoid zidovudine (AZT)/lamivudine (3TC) if there are clinical signs of anaemia and/or if haemoglobin is < 8 g/dl.

Special considerations for children

- If a child vomits within 30 minutes of intake of the medication, give the same dose.
- AZT/3TC tablets for children are dispersible in water and can be split. They can be dispersed into a small volume of water or crushed and mixed with food.
- Lopinavir/ritonavir (LPV/r) tablets must be swallowed and *cannot be crushed or split* and can be difficult to swallow.
- Lopinavir/ritonavir (LPV/r) is available as syrup for children < 10 kg. This liquid requires refrigeration at 2-8 °C until the point of dispensing and is therefore not included in post rape treatment kits supplied in the context of emergencies. LPV/r will soon be available as pellets. Pellets will be the preferred formulation as they are easier to give and have a less bitter taste.
- In children less than 2 years who are unable to swallow LPV/r tablets, use nevirapine oral liquid 10mg/ml or nevirapine 50mg dispersible tablets (see table for dosage instructions)
- Clinicians must be aware of issues of consent for children and children's specific problems of adherence and should therefore take time for thorough counselling to children and their parents/caregivers.

Counselling survivors on PEP

Cover the following points when counselling the survivor on PEP:

- The level of risk of HIV transmission during rape is not exactly known, but the risk exists, particularly in settings where HIV prevalence is high.
- There is evidence from research to indicate that PEP is very likely to be effective in reducing the risk of transmission of HIV after rape.
- It is preferable to know the survivor's HIV status prior to starting antiretrovirals, so the best possible recommendation can be made.
- The survivor is free to choose whether or not to have immediate HIV-testing. If she prefers, the decision can be delayed until the one-week follow-up visit.
- Explain the common side-effects of the drugs, such as feelings of tiredness, nausea and flu-like symptoms. Reassure the survivor that these side-effects are temporary and do not cause long-term harm. Most side-effects can be relieved with ordinary analgesics, such as paracetamol.
- Provide the survivor with a patient information leaflet, adapted and translated in the local language.

PEP for adults and children > 35 kg

Weight	Drugs	Dose per tablet	Dosage	Duration
> 35 kg	Tenofovir + Lamivudine (TDF*+ 3TC) + atazanavir/ritonavir (ATV/r)**	300 mg+300 mg	1 tablet x 1/day	28 days
		300 mg/100 mg	1 tablet x 1/day	
* If TDF not available: Zidovudine + Lamivudine (AZT+3TC)		300 mg+150 mg	1 tablet x 2/day	28 days
**If atazanavir/ritonavir not available: Lopinavir/ritonavir (LPV/r)		200mg/50 mg	2 tablets x 2/day	

Source MSF

PEP for children < 35 kg³

Weight (kg)	Age	Zidovudine + Lamivudine (AZT+3TC) fixed dose combination tablets				Lopinavir/ritonavir (LPV/r) [§]			
		DT 60mg+30 mg		Tablet, scored, 300mg+150 mg		Tablet 100/25 mg		Tablet 200/50 mg	
		am ☀	pm ☾	am ☀	pm ☾	am ☀	pm ☾	am ☀	pm ☾
3 - 5.9 kg	0-6 months* [#]	1	1	NR	NR	NR	NR	NR	NR
6- 9.9 kg	6 mnths-1 yr* [#]	1.5	1.5	NR	NR	NR	NR	NR	NR
10- 13.9 kg	1 - 3 yrs	2	2	NR	NR	2	1	NR	NR
14 - 19.9 kg	3 - 6 yrs	2.5	2.5	NR	NR	2	2	1	1
20 - 24.9 kg	6 - 9 yrs	3	3	NR	NR	2	2	1	1
25 - 34.9 kg	9 - 14 years	4	4	0.5	1	3	3	2	1

*LPV/r oral liquid 80/20 mg/ml is preferred for children up to 1 year. This liquid requires refrigeration at 2-8 °C until the point of dispensing and it is therefore not suitable for supply to areas where the cold chain cannot be maintained or for inclusion in post rape treatment kits that are supplied in the context of emergencies.

§ LPV/r tablets must be swallowed and *should not be crushed or dissolved* in liquid. Children who are unable to swallow LPV/r tablets should use LPV/r liquid or NVP (if less than 2 years).

In children less than 2 years who live in settings where LPVr syrup is not available, or cold storage facilities are not available, use Nevirapine as follows: **Nevirapine oral liquid 10mg/ml or Nevirapine 50mg dispersible tablets**

0 - 6 months: 5ml or 1 tablet every 12 hours (twice daily)

6 months -1 year: 8 ml or 1.5 tablets every twelve hours (twice daily)

DT = Dispersible Tablet

NR = Not Recommended

³ Adapted from : [Revision of the malaria and PEP modules, addendum to the malaria and post-exposure prophylaxis \(PEP\) sections of the Interagency Emergency Health Kit 2011.](#)