Post-Exposure Prophylaxis (PEP) to Prevent HIV Infection

November 2021

Table 2: Preferred Post-Exposure Prophylaxis Regimens for Patients Who Weigh ≥40 kg [a,c]

Preferred Regimen	Notes
• Tenofovir disoproxil fumarate 300 mg/ emtricitabine 200 mg (TDF/FTC; Truvada) once per day ***or*** • TDF 300 mg/lamivudine (TDF/3TC; Cimduo) 300 mg once per day ***plus*** • Raltegravir (RAL; Isentress) 400 mg twice per day ***or*** • RAL HD 1200 mg once per day [b] ***or*** • Dolutegravir (DTG; Tivicay) 50 mg once per day	• **DTG:** If prescribed, discuss with individuals of childbearing capacity the small risk of teratogenicity in the first trimester, and counsel about the need for birth control while completing the 28-day PEP regimen; there is no elevated risk beyond the first trimester (see *Box 2: Use of Dolutegravir in Individuals of Childbearing Capacity*). – Metformin dosing should be limited to 1 g by mouth per day when an individual is taking DTG concurrently. • **DTG:** Magnesium- or aluminum-containing antacids may be taken 2 hours before or 6 hours after DTG; calcium- containing antacids or iron supplements may be taken simultaneously if taken with food. • **RAL:** Magnesium- or aluminum-containing antacids are contraindicated; coadministration of calcium-containing antacids is not recommended with RAL HD. • **TDF:** Requires dose adjustment for creatinine clearance (CrCl) <50 mL/min. Alternatively, another agent can be considered, in which case consultation with an experienced HIV care provider is advised. • **TDF/FTC and TDF/3TC:** Dosing should be adjusted in patients with baseline CrCl <50 mL/min.

a. All medications are taken by mouth for 28 days.
b. RAL HD: May be prescribed for patients who weigh >40 kg; RAL HD should not be prescribed for pregnant individuals.
c. Available alternative formulations and methods of administration:
   - 3TC: Acceptable to crush or split. Available as an oral solution (10 mg/mL).
   - DTG: Acceptable to crush.
   - FTC: Acceptable to open and dissolve in water. Available as an oral solution (10 mg/mL).
   - RAL: Available as a chewable tablet (25 mg, 100 mg) and oral powder for suspension (100 mg/packet); neither is bioequivalent to the 400 mg adult dose.
   - TDF: Acceptable to dissolve in water. Available as an oral powder only (40 mg/1 g) that can be mixed with soft food.
   - TDF/FTC: Acceptable to crush and dissolve.

Table 3: Alternative Post-Exposure Prophylaxis Regimens for Patients Who Weigh ≥40 kg [a,b]	
Alternative Regimens	**Notes**
Elvitegravir 150 mg/cobicistat 150 mg/emtricitabine 200 mg/tenofovir disoproxil fumarate 300 mg (EVG/COBI/FTC/TDF) as a fixed-dose single tablet once per day (Stribild) [c]	**For individuals with creatinine clearance (CrCl) <70 mL/min:** Fixed-dose single tablet EVG/COBI/TDF/FTC is *contraindicated*.
• TDF 300 mg/FTC 200 mg (Truvada) *plus* ritonavir (RTV; Norvir) 100 mg *plus* darunavir (DRV; Prezista) 800 mg once per day [d] • **Substitutions:** – **For FTC**: Lamivudine (3TC; Epivir) 300 mg once per day. – **For DRV:** Atazanavir (ATV; Reyataz) 300 mg once per day ***or*** fosamprenavir (FPV; Lexiva) 1400 mg once per day *plus* RTV 100 mg once per day.	**For individuals with baseline CrCl <50 mL/min:** Adjust dosing of 3TC/FTC plus TDF.

a. All medications are taken by mouth for 28 days.
b. Available alternative formulations and methods of administration:
   – 3TC: Acceptable to crush or split. Available as an oral solution (10 mg/mL).
   – ATV: Acceptable to open capsule and sprinkle contents. Oral dispersible powder (50 mg/packet).
   – DRV: Probably acceptable to crush. Available as an oral suspension (100 mg/mL).
   – DTG: Acceptable to crush.
   – FTC: Acceptable to open and dissolve in water. Available as an oral solution (10 mg/mL).
   – RAL: Available as a chewable tablet (25 mg, 100 mg) and oral powder for suspension (100 mg/packet); neither is bioequivalent to the 400 mg adult dose.
   – RTV: Available as an oral solution (80 mg/mL).
   – TDF: Can be dissolved in water. Available as an oral powder (40 mg/1 g) that can be mixed with soft food only.
   – TDF/FTC: Acceptable to crush and dissolve.
c. Cobicistat-containing regimens should not be used during pregnancy.
d. If DRV or ATV are prescribed during pregnancy, dose adjustments are required. See the guideline section *PEP During Pregnancy or Breastfeeding* or *Clinicalinfo.HIV.gov > Table 10. Antiretroviral Drug Use in Pregnant Women with HIV: Pharmacokinetic and Toxicity Data in Human Pregnancy and Recommendations for Use in Pregnancy*.

Table 4: Post-Exposure Prophylaxis Regimens for Patients 2 to 12 Years Old Who Weigh <40 kg

See *DHHS for dosing, administration and additional information about each medication*. Each medication name below is linked to a page about that medication.

- **Preferred:** Tenofovir disoproxil fumarate (TDF; Viread) *plus* emtricitabine (FTC; Emtriva) *plus* raltegravir (RAL; Isentress). TDF/FTC is available as the fixed-dose combination (Truvada).
  - **Substitutions:**
    - Lamivudine (3TC; Epivir) may be substituted for FTC.
    - Dolutegravir (DTG; Tivicay) may be substituted for RAL.
- **Alternatives:**
  - **Age ≥2 years to 12 years:** Zidovudine (ZDV; Retrovir) *plus* 3TC (Epivir) *plus* RAL (Isentress) or lopinavir/ritonavir (LPV/RTV; Kaletra).
  - **Age ≥3 years to <12 years:** TDF (Viread) plus FTC (Emtriva) *plus* darunavir (DRV/Prezista) *plus* ritonavir (RTV; Norvir).
    - **Substitution:** 3TC (Epivir) may be substituted for FTC.

Table 5: Antiretroviral Medications to Avoid for Post-Exposure Prophylaxis				
Antiretroviral Class	**Agent**	**<40 kg**	**≥40 kg**	**Comments**
First-generation protease inhibitors	• Indinavir (IDV; Crixivan) • Nelfinavir (NFV; Viracept)	Avoid	Avoid	Poorly tolerated.
First-generation non-nucleoside reverse transcriptase inhibitors	• Efavirenz (EFV; Sustiva) • Nevirapine (NVP; Viramune)	Avoid	Avoid	• **EFV:** Potential for neuropsychiatric adverse effects. • **NVP:** Associated with fulminant hepatic failure and risk of Stevens-Johnson syndrome [CDC 2001].
Nucleoside reverse transcriptase inhibitors	• Abacavir (ABC; Ziagen) • Didanosine (ddI; Videx) • Stavudine (d4T; Zerit) • Tenofovir alafenamide (TAF) • Zidovudine (ZDV, AZT; Retrovir)	Avoid d4T, ddI, ABC, TAF	Avoid all	• **ABC:** Potential for serious, sometimes fatal hypersensitivity reaction. • **d4T, ddI, ZDV:** Significant mitochondrial toxicities. • **TAF:** Decreased vaginal, cervical, and rectal tissue concentrations of the active moiety of (tenofovir diphosphate) in healthy volunteers [Garrett, et al. 2016; Cottrell, et al. 2017].
CCR5 antagonist	Maraviroc (MVC; Selzentry)	Avoid	Avoid	Only shows activity against R5-tropic virus.

References

CDC. Serious adverse events attributed to nevirapine regimens for postexposure prophylaxis after HIV exposures--worldwide, 1997-2000. *MMWR Morb Mortal Wkly Rep* 2001;49(51-52):1153-1156. [PMID: 11198946] https://www.ncbi.nlm.nih.gov/pubmed/11198946

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