

### **Prior Authorization DRUG Guidelines**

# ATRIPLA

## (efavirenz, tenofovir and emtricitabine)

Date Developed: 1/28/14 by Catherine Sanders, MD Effective Date: 1/28/14 Last Approval Date: 1/26/16, 1/24/17, 1/23/18, 1/22/19, 2/18/20, 8/3/21, 2/1/22, 1/31/23, 2/13/24, 2/18/25

Atripla is a combination Antiretroviral consisting of efavirenz, tenofer and emtricitabine. **Efavirenz** has activity against HIV-1 by binding to reverse transcriptase. It consequently blocks the RNA-dependent and DNA-dependent DNA polymerase activities including HIV-1 replication. It does not require intracellular phosphorylation for antiviral activity. **Tenofovir** disoproxil fumarate (TDF), is an analog of adenosine 5'-monophosphate; it interferes with the HIV viral RNA dependent DNA polymerase resulting in inhibition of viral replication. TDF is first converted intracellularly by hydrolysis to tenofovir and subsequently phosphorylated to the active tenofovir diphosphate. **Emtricitabine** is a cytosine analogue which is phosphorylated intracellularly to emtricitabine 5'-triphosphate which interferes with HIV viral RNA dependent DNA polymerase resulting in inhibition of viral replication intracellularly to emtricitabine 5'-triphosphate which interferes with HIV viral RNA dependent DNA polymerase resulting in inhibition of viral replication.

Authorization Criteria: Treatment of HIV-1 infection in adult and pediatric patients weighing  $\geq$ 40 kg (may be used alone or in combination with other antiretroviral agents).

**Dosing: Adult HIV infection:** Oral: One tablet once daily. (600mg/200mg/300mg tablets)

Dosing: Pediatric

**HIV infection:** Children  $\geq$ 12 years and  $\geq$ 40 kg and Adolescents: Oral: Refer to adult dosing. Consider premedication with antihistamine

**Dosing: Geriatric** Refer to adult dosing.

**Dosing: Renal Impairment** Moderate-to-severe renal impairment (Cl<sub>cr</sub> <50 mL/minute): Use not recommended.

### **Dosing: Hepatic Impairment**

Mild hepatic impairment (Child-Pugh class A): Use with caution. Moderate or severe hepatic impairment (Child-Pugh class B, C): Not recommended.

**NOTE**: Significant and extensive drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

### Dosage Forms: U.S.

Tablet: Atripla<sup>®</sup>: Efavirenz 600 mg, emtricitabine 200 mg, and tenofovir disoproxil fumarate 300 mg



NOTE: Generic equivalent is available

#### Administration:

Should be taken on an empty stomach, normally at bedtime to increase gastrointestinal tolerance and decrease central nervous system manifestations.

### **Contraindications:**

History of clinically significant hypersensitivity (e.g., Stevens-Johnson syndrome, erythema multiforme, or toxic skin reactions) to efavirenz; concurrent use of bepridil, cisapride, midazolam, triazolam, voriconazole, ergot alkaloids (includes dihydroergotamine, ergotamine, ergonovine, methylergonovine), St. John's wort, pimozide.

### **Adverse Reactions:**

>10%: abnormal dreams; hypercholesteremia1-10%: depression, fatigue, rash, diarrhea, nausea,

#### Precautions:

Monitor for adverse CNS effects (including depression), decreased bone density, hepatic involvement (including lactic acidosis and severe hepatomegaly with steatosis), immune reconstitution syndrome, renal toxicity, Q-T prolongation, hyperpigmentation (pediatrics), excessive bone loss (pediatrics),

### **U.S. BOXED WARNING:**

Lactic acidosis and severe hepatomegaly with steatosis have been reported with nucleoside analogues, including fatal cases. Suspend treatment if clinical or laboratory findings suggest lactic acidosis or hepatotoxicity.

Safety and efficacy during co-infection of HIV and HBV have not been established; acute, severe exacerbations of HBV have been reported following discontinuation of antiretroviral therapy Monitor hepatic function closely for at least several months in HBV/HIV co-infected patients who discontinue efavirenz/emtricitabine/tenofovir; initiate anti-HBV treatment if needed.

#### **References:**

- DHHS Panel on Antiretroviral Guidelines for Adults and Adolescents, "Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents, Department of Health and Human Services," February 12, 2013; 1-267. Available at <u>https://clinicalinfo.hiv.gov/en</u>
- 2. Gallant JE, DeJesus E, Arribas JR, et al, "Tenofovir DF, Emtricitabine, and Efavirenz vs Zidovudine, Lamivudine, and Efavirenz for HIV," *N Engl J Med*, 2006, 354(3):251-60. [PubMed 16421366]
- 3. Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children, "Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection," August 16, 2010. Available at http://www.aidsinfo.nih.gov
- 4. UpToDate.com: Efavirenz, tenofovir, and emtricitabine: Drug information
- 5. Atripla (efavirenz/emtricitabine/tenofovir) [prescribing information]. Foster City, CA: Gilead Sciences Inc; December 2021.
- 6. Shubber Z, Calmy A, Andrieux-Meyer I, et al. Adverse events associated with nevirapine and efavirenz-based first-line antiretroviral therapy: a systematic review and meta-analysis. AIDS. 2013;27(9):1403-1412.



7. Rawala MS, Wright J, King J, Howell D, Martin S. Membranous nephropathy in a patient with human immunodeficiency virus shortly after initiation of HAART with atripla. Cureus. 2019;11(1):e3932.

#### **Revvision History:**

Date Approved by P&T Committee: 1/28/14 Date Reviewed/No Updates: 1/13/15 by C. Sanders, MD Date Approved by P&T Committee: 1/27/15 Date Reviewed/Updated: 1/13/15 by C. Sanders, MD; R. Sterling, MD Date Approved by P&T Committee: 1/26/16 Date Reviewed/No Updates: 1/24/17 by C. Sanders, MD; R. Sterling, MD Date Approved by P&T Committee: 1/24/17 Date Reviewed/No Updates: 1/23/18 by C. Sanders, MD; R. Sterling, MD Date Approved by P&T Committee: 1/23/18 Date Reviewed/No Updates: 1/22/19 by C. Sanders, MD; R. Sterling, MD Date Approved by P&T Committee: 1/22/19 Date Reviewed/No Updates: 2/18/20 by H. Taekman, MD; R. Sterling, MD Date Approved by P&T Committee: 2/18/20 Date Reviewed/ Updated: 8/3/21 by H. Taekman, MD; R. Sterling, MD Date Approved by P&T Committee: 8/3/21 Date Reviewed/No Updates: 2/1/22 by H. Taekman, MD; R. Sterling, MD Date Approved by P&T Committee: 2/1/22 Date Reviewed/No Updates: 1/31/23 by H. Taekman, MD; R. Sterling, MD Date Approved by P&T Committee: 1/31/23 Date Reviewed/No Updates: 2/13/24 by H. Taekman, MD; R. Sterling, MD

Date Approved by P&T Committee: 2/13/24

Date Reviewed/Updated: 2/18/25 by H. Taekman, MD; R. Sterling, MD

Date Approved by P&T Committee: 2/18/25

Revision	Content		
Date	Revised	Contributors	<b>Review/Revision Notes</b>
Date	(Yes/No)		
1/24/17	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/23/18	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/22/19	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
2/18/20	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
8/3/21	Yes	Howard Taekman, MD; Robert Sterling, MD	Updated the authorization
			criteria, dosing, adverse
			reactions, and precautions
2/1/22	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
1/31/23	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/13/24	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/18/25	Yes	Howard Taekman, MD; Robert Sterling, MD	Removed "Tenofovir inhibits
			replication of HBV by
			inhibiting HBV polymerase.
			Updated Dosage forms section.