Truvada is a combination Antiretroviral Agent, Reverse Transcriptase Inhibitor (Nucleoside) and Reverse Transcriptase Inhibitor (Nucleotide) used in the treatment of HIV-1 infections. Emtricitabine is a cytosine analogue while tenofovir disoproxil fumarate (TDF) is an analog of adenosine 5’-monophosphate. Each drug interferes with HIV viral RNA dependent DNA polymerase resulting in inhibition of viral replication.

**Pre-Authorization Criteria:**
Truvada is used to treat HIV-1 infection in combination with other antiretroviral agents in adults and pediatric patient greater than or equal to 12 years of age. It is recommended as a component of preferred regimens (in combination with atazanavir/ritonavir or darunavir/ritonavir or efavirenz or raltegravir) in antiretroviral-naive patients.

Truvada will also be approved for use in pre-exposure prophylaxis (PrEP) for prevention of HIV-1 infection in adults who are at high risk for acquiring HIV. High risk includes those with partners known to be HIV-1 infected or who engage in sexual activity within a high prevalence area or social network, and one or more of the following:
- Inconsistent or no condom use
- Diagnosis of sexually-transmitted infections
- Exchange of sex for commodities
- Use of illicit drugs or alcohol dependence
- Incarceration
- Partner of unknown HIV-1 status with any of the above risk factors

When prescribing PrEP healthcare providers MUST:
- Include PrEP as part of a comprehensive prevention strategy because PrEP alone is not always effective in preventing HIV-1 infection
- Counsel all uninfected patients to strictly adhere to the dosing schedule, because adherence was strongly correlated with effectiveness in clinical trials
- Confirm a negative HIV-1 test prior to starting PrEP; if a candidate has acute viral infection symptoms and unprotected exposure events <1 month prior, delay PrEP for at least 1 month and retest HIV-1 status or use a Food and Drug Administration (FDA) test approved for HIV-1 diagnosis, including acute or primary HIV-1 infection
- Retest for HIV-1 infection at least every 3 months while the patient receives PrEP

Truvada is not recommended as a component of a triple nucleoside regimen due to potential for early virological failure. Clinical trials in HIV-infected patients whose regimens contained only three nucleoside reverse transcriptase inhibitors (NRTI) show less efficacy, early virologic failure and high rates.
of resistance substitutions. Triple drug regimens with two NRTIs in combination with a non-nucleoside reverse transcriptase inhibitor or a HIV-1 protease inhibitor are usually more effective.

The following are unlabeled uses of Truvada and are therefore not covered:
- Treatment of hepatitis B in patients with antiviral-resistant HBV or coinfection with HIV
- Pre-exposure prophylaxis (PrEP) for prevention of HIV-1 infection in injecting drug users (IDU) who are at risk for parenteral acquisition of HIV but not at risk for sexual acquisition of HIV
- Postexposure prophylaxis (PEP) for occupational exposure to HIV

VCHCP requires that Truvada be prescribed by an Immunology Clinic physician with current American Academy of HIV Medicine (AAHIVM) certification or a physician boarded in Infectious Disease.

Medication Guide:
An FDA-approved patient medication guide, which is available with the product information and at http://www.fda.gov/downloads/Drugs/DrugSafety/UCM312307.pdf, must be dispensed with this medication.

Dosing: Adult:
Note: Avoid concurrent use with adefovir or lamivudine-containing products or other emtricitabine-and/or tenofovir-containing products.
HIV-1 infection: Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily. Note: Recommended as a component of preferred regimens (in combination with atazanavir/ritonavir or darunavir/ritonavir or efavirenz or raltegravir) in antiretroviral-naive patients (DHHS, 2013).
Preexposure prophylaxis (PrEP) for prevention of HIV infection in uninfected high-risk individuals: Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily
Hepatitis B treatment in patients with antiviral-resistant HBV or coinfection with HIV (unlabeled use): Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily (Lok, 2009)
Occupational HIV postexposure, prophylaxis (PEP) (unlabeled use): Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily for 4 weeks with concomitant raltegravir. Recommended as preferred therapy (Kuhar, 2013)
PrEP for prevention of HIV infection in injecting drug users (IDU) who are at risk for parenteral acquisition of HIV but not at risk for sexual acquisition of HIV (unlabeled use): Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily (CDC, 2013)

Dosing: Pediatric:
Note: Avoid concurrent use with adefovir or lamivudine-containing products or other emtricitabine-and/or tenofovir-containing products.
HIV-1 infection: Children ≥12 years (≥35 kg) and Adolescents (≥35 kg): Oral: One tablet (emtricitabine 200 mg and tenofovir 300 mg) once daily. Note: Recommended as a component of preferred regimens (in combination with atazanavir/ritonavir or darunavir/ritonavir or efavirenz or raltegravir) in antiretroviral-naive patients (DHHS, 2013).

Dosing: Geriatric:
Refer to adult dosing.

Dosing: Renal Impairment:
HIV-1 infection: Adults:
Clcr ≥50 mL/minute: No dosage adjustment necessary
Clcr 30-49 mL/minute: Increase interval to every 48 hours.
Clcr <30 mL/minute or hemodialysis: Not recommended.

PrEP: Adults:
Clcr ≥60 mL/minute: No dosage adjustment necessary
Clcr <60 mL/minute: Not recommended.

**Dosing: Hepatic Impairment:**
No dosing adjustment necessary for tenofovir in moderate-to-severe hepatic compromise; no specific data available on emtricitabine in hepatic impairment, but given limited hepatic metabolism, dose adjustments are unlikely.

**Dosage Forms: U.S.:**
Excipient information presented when available (limited, particularly for generics); consult specific product labeling.
Tablet:
Truvada: Emtricitabine 200 mg and tenofovir disoproxil fumarate 300 mg

Generic Equivalent Available: U.S.-No

**Exceptions:**
Truvada is not for use for preexposure prophylaxis (PrEP) in patients with unknown or HIV-1 positive status.
Truvada is not covered for the following unlabeled uses: Treatment of hepatitis B in patients with antiviral-resistant HBV or coinfection with HIV; pre-exposure prophylaxis (PrEP) for prevention of HIV-1 infection in injecting drug users (IDU) who are at risk for parenteral acquisition of HIV but not at risk for sexual acquisition of HIV; postexposure prophylaxis (PEP) for occupational exposure to HIV
Truvada is not for use in patients treated for HIV-1 infection with creatinine clearance <30 mL/minute or patients treated for pre-exposure prophylaxis with creatinine clearance <60 mL/minute as dosage adjustment is not possible with fixed-dose.

**Adverse Reactions:**
See individual agents.
Other Severe Less Common Reactions: lactic acidosis, hepatomegaly, hepatotoxicity, HBV exacerbation post-treatment, nephrotoxicity, rhabdomyolysis, myopathy, osteomalacia, fractures, pancreatitis, neutropenia, anemia, immune reconstitution syndrome, autoimmune disorders, fat redistribution, hypersensitivity reactions,

**U.S. BOXED WARNING:**
Lactic acidosis and severe hepatomegaly with steatosis, including fatal cases, associated with nucleoside analogue use alone or in combination; suspend treatment if clinical or laboratory findings suggest lactic acidosis or hepatotoxicity
Safety and efficacy not established in HIV/HBV co-infection; severe acute HBV exacerbations in HBV/HIV co-infected pts with discontinuation of emtricitabine or tenofovir; monitor hepatic function closely for at least several months in HBV/HIV co-infected pts who discontinue emtricitabine/tenofovir; initiate anti-HBV treatment if needed
Only prescribe for pre-exposure prophylaxis use in HIV-negative pts; confirm HIV status immediately before treatment, then every 3 months; drug-resistant HIV variants identified with use following undetected acute HIV infection; do not start in pts with acute HIV infection signs and symptoms unless HIV-negative status confirmed

References:

10. www.uptodate.com: Tenofovir and emtricitabine: Drug Information
11. www.epocrates.com: Truvada Drug Information

Revision History:

Date Reviewed/No Updates: 1/13/15 by C. Sanders, MD
Date Approved by P&T Committee: 1/27/15
Date Reviewed/No Updates: 1/26/16 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
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