Emtricitabine/Tenofovir (Truvada) for HIV Prophylaxis

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Emtricitabine/tenofovir (Truvada) is a fixed-dose combination of emtricitabine (200 mg) and tenofovir (300 mg) that was initially approved to treat human immunodeficiency virus, type 1 (HIV-1) infection. It is now labeled for use as preexposure prophylaxis to prevent HIV-1 infection in high-risk patients.1

### TOLERABILITY
Emtricitabine/tenofovir is generally well tolerated. When it is used for preexposure prophylaxis in persons without HIV infection, headache, nausea, vomiting, abdominal pain, and weight loss may occur infrequently.2-4 Nausea and vomiting affect about one in six patients at the start of treatment, but these effects often subside within the first month.3

### EFFECTIVENESS
Based on studies conducted primarily outside the United States,2-5 emtricitabine/tenofovir has been shown to reduce the risk of acquiring HIV infection in several subgroups of patients when used daily in combination with a comprehensive HIV prevention strategy, including safer sex practices.2-4 Among high-risk men who have sex with men, emtricitabine/tenofovir reduced the absolute risk of acquiring HIV infection from 5.3% to 2.9% (number needed to treat [NNT] = 43 over a median 12 months of treatment; 95% confidence interval [CI], 25 to 134).3 Among heterosexual men and women in high-prevalence regions of Botswana, it reduced...
the absolute risk of infection from 4.3% to 1.6% (NNT = 38; 95% CI, 21 to 135; median follow-up = 1.1 years). Among heterosexual couples in Kenya in which one partner was HIV positive and the other was HIV negative, the risk decreased from 3.3% to 1.1% (NNT = 44; 95% CI, 29 to 85; median follow-up = 1.9 years). Effectiveness depends on adherence to daily administration.\(^1,3\)

Emtricitabine/tenofovir will not prevent other sexually transmitted diseases.

**PRICE**

A one-month supply of emtricitabine/tenofovir for preexposure prophylaxis costs approximately $1,258.\(^7\) Only some insurance plans currently provide coverage for use of emtricitabine/tenofovir as preexposure prophylaxis.

**SIMPPLICITY**

Although emtricitabine/tenofovir requires only a single daily dose, strict adherence is essential. It may be taken without regard to mealtimes. Because of the risk of developing drug resistance, all patients must be confirmed HIV negative before initiation of treatment. In persons with signs or symptoms of acute HIV-1 infection or those reporting potential exposure to HIV within the previous month, HIV infection should be ruled out by repeat testing before starting prophylaxis. Once a patient begins taking the medication, repeat screening for HIV infection, risk-behavior assessment, and counseling must occur every two to three months, and adherence must be assessed at every visit with a physician. Screening for sexually transmitted infections should be performed at least every six months. Renal function must be checked three months after initiation of therapy, and at least annually thereafter.\(^1\)

**Bottom Line**

When used with a comprehensive HIV prevention strategy, emtricitabine/tenofovir effectively prevents HIV-1 infection in high-risk patients. Adherence to daily dosing is important to maintain protection. The cost of therapy may limit access, and not all insurance companies currently cover its use for HIV prophylaxis.

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**REFERENCES**