Truvada Should Remain First Choice for PrEP, Experts Argue

Both Truvada and Descovy are highly effective and safe for most people taking PrEP, but the newer option has more cost barriers.

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Claims about the superiority of Descovy, the new pre-exposure prophylaxis (PrEP) option, are "overstated," and Truvada remains a highly effective and safe choice for the vast majority of PrEP users, according to a commentary in the Annals of Internal Medicine.

Truvada, approved for HIV treatment in 2004 and for PrEP in 2012, contains tenofovir disoproxil fumarate (TDF), one of the most widely used antiretroviral medications. Descovy, initially approved in 2016, contains tenofovir alafenamide (TAF), which leads to less drug exposure for the kidneys, bones and other organs. The combination pills, both manufactured by Gilead Sciences, also contain emtricitabine (FTC), a drug with minimal side effects.

"These drugs are equally effective when used for PrEP in gay and bisexual men and transgender women, and the potential safety benefits of TAF/FTC over TDF/FTC have not yet been shown to be clinically significant," lead author Douglas Krakower, MD, of Beth Israel Deaconess Medical Center, Harvard Medical School, Harvard Pilgrim Health Care Institute and The Fenway Institute said in a press release. "Given the available clinical evidence and public health context, TDF/FTC should remain the first choice for the vast majority of PrEP users."

In October 2019, the Food and Drug Administration (FDA) approved Descovy as a second daily PrEP option to reduce the risk of contracting HIV via sex, with the exception of receptive vaginal or frontal sex. Approval was based on findings from the Phase III DISCOVER trial, which enrolled more than 5,300 men who have sex with men and a small number of transgender women. The study did not include cisgender women or transgender men, and the FDA therefore declined to approve Descovy PrEP for these groups until more data become available. Truvada has no such restrictions. In addition, Truvada, but not Descovy, has also been shown to prevent HIV in people who inject drugs and heterosexuals with HIV-positive partners.

"In the future, no HIV prevention drug should be allowed to undergo Food and Drug Administration review without data addressing all key populations at risk for HIV," the commentary authors wrote. "It would be a clinical leap of faith to use TAF/FTC instead of TDF/FTC in other populations."

Numerous studies have shown that both Truvada and Descovy are very effective for HIV prevention in the studied populations, nearly eliminating the risk of acquiring the virus if taken consistently.

Both combination pills are generally safe and well tolerated. The TDF in Truvada can cause kidney problems and a small amount of bone loss in susceptible individuals, and it is not recommended for people with pre-existing kidney impairment. These problems are seen more often in HIV-positive people taking the medication for treatment—especially in combination with the booster drugs ritonavir or cobicistat—and are rare in HIV-negative individuals taking it for prevention.

Many studies have shown that the TAF in Descovy is less likely to cause unfavorable changes in kidney and bone biomarkers, but serious kidney problems and bone loss are uncommon with either drug. Conversely, the TDF in Truvada has a more favorable effect on blood fat levels and leads to less weight gain, which could have implications for cardiovascular risk. While Descovy may be a better option for those at risk for kidney or bone problems, both are safe choices for most people.

Since the approval of TAF, Gilead has encouraged patients and providers to switch to Descovy for PrEP and its other TAF-containing coformulations for HIV treatment, claiming that they are safer and potentially more effective. Advocates argue that this is a profit-driven move, as generic versions of TDF are available and Truvada will go off patent this year. Gilead holds patents on Descovy until 2022 and has requested an extension to 2025. (Some claim that the federal government holds patents on the use of both Truvada and Descovy for HIV prevention.)

Krakower and his coauthors—Demetre Daskalakis, MD, of the New York City Department of Health and Mental Hygiene, Judith Feinberg, MD, of West Virginia University, and Julia Marcus, PhD, of Harvard Medical School, Harvard Pilgrim Health Care Institute and The Fenway Institute—largely base their argument on the cost of Descovy. Both PrEP options are priced about the same now, at around $2,000 per month, but this will likely change when generic Truvada becomes available.

Gilead offers patient assistance programs for people unable to afford its medications as well as a card to help cover co-payments for those with insurance. But price is still a barrier for some individuals and for public health programs that aim to make the prevention pill more widely available.

“With the exorbitant cost of these drugs, there are huge public health and economic implications if most PrEP users begin to use the newer TAF/FTC pill rather than TDF/FTC for PrEP,” Marcus said in the Harvard Pilgrim press release. “Gilead is asking us to ’update’ our PrEP to TAF/FTC, but that’s not a clinically necessary or cost-effective choice for the vast majority of PrEP users.”

Marcus told POZ that a number of studies have found that cost—whether perceived or actual—was a reason for not initiating or not continuing on PrEP.

“The wholesale cost of PrEP creates downstream barriers at all levels of the health care system, including the patient experience,” she said. “Because PrEP is so expensive for payers, we’ve seen

insurance companies requiring prior authorization for PrEP, which creates a barrier for patients even when their co-pay is minimal or nonexistent."

"As for out-of-pocket costs, there are multiple ways of getting the cost of PrEP covered for an individual patient, depending on the state and the patient's insurance coverage and income, but even when a patient ends up paying nothing out of pocket, we need PrEP navigators to help them access these patient assistance programs," she continued. "If PrEP were as affordable as other preventive medications, like generic statins (or like generic TDF combinations in other countries), most people could afford to pay out of pocket, mitigating both perceived and actual cost barriers."

Benjamin Ryan assisted with reporting for this article.

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