Bictegravir/Lenacapavir Daily Combo Pill Maintains HIV Suppression

The two-drug single-tablet regimen could simplify treatment for people currently on complex regimens.

December 15, 2025 By Liz Highleyman

[Update: On December 15, Gilead announced results from the Phase III ARTISTRY-2 trial, in which people with viral suppression switched from Biktarvy to the new bictegravir/lenacapvir combination pill. Here too, the new single-tablet regimen was found to be noninferior to staying on the existing regimen.]

This report was initially published on November 14, 2025.

A once-daily single-tablet regimen containing bictegravir and lenacapavir could enable simpler HIV treatment for people taking complex antiretroviral regimens, according to an announcement from Gilead Sciences. Top-line Phase III results from the ARTISTRY-1 trial showed that people who switched to the combination pill maintained viral suppression.

Standard antiretroviral therapy is highly effective for most people living with HIV, but some treatment-experienced individuals who have used multiple medications have developed extensive drug resistance, and others may be unable to tolerate the nucleoside/nucleotide reverse transcriptase inhibitors in most existing all-in-one pills. Thus, these people may need to use more complex drug combinations and can't benefit from the convenience of a single-tablet regimen, which could be a barrier to adherence.

"Developing new effective, convenient regimens for those left behind by advances in medical research is necessary to close the unmet HIV treatment gap," Chloe Orkin, MBBCh, of Queen Mary University of London, said in the news release. "These ARTISTRY-1 trial results demonstrate that a combination regimen of bictegravir and lenacapavir maintains viral suppression in people living with HIV who would otherwise have to take a complex multi-tablet regimen. The findings are significant for those people, many of whom have lived with HIV for decades and who have medical comorbidities of aging and thus take many other medications as well."

Bictegravir is a once-daily oral integrase inhibitor best known as a component of the widely used Biktarvy combination pill (bictegravir/tenofovir alafenamide/emtricitabine). Lenacapavir (Sunlenca), the first HIV capsid inhibitor, is currently approved for heavily treatment-experienced

people with multidrug-resistant HIV, to be used in combination with other antiretrovirals. The twice-yearly injectable was also recently approved as a stand-alone drug for HIV pre-exposure prophylaxis (PrEP) under the brand name Yeztugo. ARTISTRY-1 used an oral formulation of lenacapavir, which is also being tested with Merck's islatravir as a once-weekly regimen.

ARTISTRY-1 (NCT05502341) is a two-part open-label trial evaluating the safety and efficacy of bictegravir plus lenacapavir as a consolidation option for people who have achieved viral suppression on more complex regimens. The Phase II portion of the study evaluated bictegravir and lenacapavir as separate pills, while the Phase III portion tested a new single-tablet regimen containing the two drugs.

The Phase II portion included a diverse group of 128 people, with a median age of 60, who had been on HIV treatment for a median of 27 years and had tried a median of six prior antiretrovirals; 20% had a past history of AIDS. At baseline, they were on a variety of complex regimens that included up to nine pills a day. They were randomized to receive a once-daily regimen of oral bictegravir (75 milligrams) plus either 25 mg or 50 mg oral lenacapavir or to stay on their current regimen.

At the 2024 International AIDS Conference, researchers reported that 92% of people assigned to bictegravir plus 25 mg lenacapavir and 90% of those on the 50 mg lenacapavir dose had a viral load below 50 copies at 48 weeks, as did everyone who stayed on their baseline regimen. Changes in CD4 counts were comparable across the three groups. Bictegravir plus lenacapavir at both tested doses was safe and generally well tolerated. These results were recently published in Open Forum Infectious Diseases.

With these promising results in hand, the Phase III portion tested a single-tablet regimen containing bictegravir and the 50 mg dose of lenacapavir in more than 500 people on a complex regimen. Top-line results showed that switching to the combination pill was "statistically non-inferior" to continuing on a multi-tablet regimen, according to Gilead. Bictegravir/lenacapavir was "generally well tolerated, with no significant or new safety concerns identified."

The company's announcement did not include details about the study population, virological outcomes or tolerability. These data will be presented at a future scientific meeting—possibly the Conference on Retroviruses and Opportunistic Infections in February 2026—and submitted for peer-reviewed publication.

In a related study presented at the recent European AIDS Conference (EACS), Gilead researchers analyzed the risk of drug-drug interactions (DDIs) with the bictegravir/lenacapavir combination pill versus more complex regimens. People on complex regimens are often older and heavily treatment experienced, and a majority of study participants were using boosted protease inhibitors—drugs prone to interactions because the boosters (ritonavir or cobicistat) can alter levels of other medications. The researchers assessed the DDI liability of the top 10 most prescribed medications in the United States and eight medications commonly prescribed for elderly people (including statins, blood thinners and corticosteroids). They found that, while DDI

liability varied across regimens, the risk was lower for bictegravir/lenacapavir compared with boosted darunavir (Prezista or Prezcobix). Another analysis presented at EACS showed that the bictegravir/lenacapavir combination appears to have a high barrier to resistance and a high degree of “forgiveness” for occasional missed doses.

Gilead plans to submit the Phase III data for consideration by the Food and Drug Administration and other regulatory authorities.

Meanwhile, the Phase III ARTISTRY-2 trial (NCT06333808) is comparing the bictegravir/lenacapavir single-tablet regimen versus Biktarvy. Top-line results are expected by the end of the year, according to Gilead.

“People living with HIV who are on complex antiretroviral treatment regimens may experience pill burden, adherence challenges and difficulties with the long-term management of HIV,” said Jared Baeten, MD, PhD, Gilead’s senior vice president for clinical development. “Gilead developed the first single-tablet complete regimen for the treatment of HIV in 2006. Today, innovative single-tablet regimens are still needed to help suit people’s needs, modernizing treatment while helping to sustain viral suppression. By reducing the multi-tablet burden, we hope to improve health outcomes while expanding options.”

[Editor’s note: This report has need edited to add data presented at EACS.]

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