



**BIKTARVY® DEMONSTRATES HIGH EFFICACY FOR A BROAD RANGE OF PEOPLE INITIATING TREATMENT FOR HIV, INCLUDING THOSE WITH HBV COINFECTION**

***–ALLIANCE Trial Highlights Potential of Biktarvy for Adults with HIV and HBV Coinfection –***

***–No Cases of Treatment Failure Due to Resistance to Biktarvy was Detected in Pooled Analysis of Five-Year Data from Two Phase 3 Studies –***

**FOSTER CITY, Calif.** --(BUSINESS WIRE)-- Gilead Sciences, Inc. (Nasdaq: GILD) today announced results reinforcing Biktarvy® (bictegravir 50 mg/emtricitabine 200 mg/tenofovir alafenamide 25 mg tablets, B/F/TAF) as a highly efficacious treatment option for a broad range of people with HIV, including individuals with HIV/hepatitis B (HBV) coinfection. Interim data, from the ALLIANCE trial evaluating Biktarvy in adults with HIV/HBV coinfection who were initiating therapy show potential suppression of HBV and HIV suppression compared with an alternative HIV regimen. Additionally, 5-year data from two Phase 3 trials further demonstrated Biktarvy's sustained efficacy, safety profile and high barrier to resistance in adults with HIV initiating therapy. The data were presented at the 24th International AIDS Conference (AIDS 2022).

Data from the ALLIANCE trial, which is an ongoing Phase 3 trial evaluating Biktarvy versus dolutegravir 50 mg (DTG) + emtricitabine 200 mg/tenofovir disoproxil fumarate 300 mg, F/TDF, DTG+F/TDF, demonstrated the efficacy of both antiretroviral regimens, in adults with HIV/HBV co-infection initiating treatment. The Week 48 results show Biktarvy demonstrated superior HBV DNA suppression. Importantly, participants who initiated treatment with Biktarvy versus DTG+F/TDF demonstrated superior HBV DNA suppression (<29 IU/mL) (63% vs. 43%, p=0.0023) and hepatitis B e-antigen (HBeAg) seroconversion (23% vs. 11%, p=0.031). The Week 48 results also showed that participants who initiated treatment with Biktarvy or DTG+F/TDF both had similarly high rates of HIV suppression (HIV-1 RNA <50 copies/ml). Participants who initiated treatment with Biktarvy or DTG+F/TDF both had high rates of HIV suppression at Week 48 (95% vs. 91%; 95% CI - 2.5% to 10.8%, p=0.21) with mean CD4 cell

count increases of 200 and 175 cells/ $\mu$ l from baseline, respectively. The ALLIANCE trial will continue in a blinded fashion through Week 96 to determine longer-term safety and efficacy.

HIV/HBV coinfection is a major global public health threat that increases the morbidity and mortality beyond either infection alone. HBV impacts approximately 8% of people with HIV globally, and HIV/HBV coinfection rates can reach 25% in areas where both viruses are endemic, such as Asia. In some parts of Asia, HBV is endemic with a projected 70% of the population showing serologic evidence of current or prior infection. Because each virus affects the other's natural history and response to therapy, HIV/HBV co-infection requires dedicated research.

“ALLIANCE is a landmark clinical trial, investigating the specific treatment responses of adults with HIV/HBV co-infection,” said Anchalee Avihingsanon, MD, PhD, Senior Researcher, HIV–NAT, Thai Red Cross AIDS Research Center, Thailand. “Emerging HIV epidemics in areas of high HBV rates such as Asia are expanding the number of people with HIV/HBV coinfection. This inclusive and representative study enrolled and treated participants from 11 different geographies with 88% of participants of Asian descent, driving the availability of data from within those communities most impacted.”

The multi-center ALLIANCE trial enrolled participants (n=243: Biktarvy n=121; DTG+F/TDF n=122) over four years from Asia (n=214, 88% Asian), Europe, and North and Latin America. Further results from the trial showed that participants who initiated treatment with Biktarvy had numerically higher hepatitis B surface antigen (HBsAg) loss (13% vs. 6%, p=0.059), HBeAg loss (26% vs. 14%, p=0.055), and alanine aminotransferase (ALT) normalization (73% vs 55%, p=0.066) (AASLD criteria). Safety findings were similar between the Biktarvy and DTG+F/TDF groups. Adverse events (AEs) included upper respiratory tract infection (17% vs. 11%), COVID-19 (13% vs. 11%), pyrexia (9% vs. 12%), ALT increase (7% vs. 11%), and nasopharyngitis (11% vs. 4%). ALT flares (elevations at  $\geq 2$  consecutive post-baseline visits) occurred in 11 participants (n=7: Biktarvy vs n=4: DTG+F/TDF). The use of Biktarvy in individuals with HIV/HBV co-infection is investigational and the safety and efficacy of this use have not been established.

Gilead presented additional Biktarvy data at AIDS 2022. Five-year cumulative data demonstrated Biktarvy's sustained efficacy and durable viral suppression as first-line therapy in

people with HIV. No cases of treatment failure due to emergent resistance were detected in an analysis of both studies, which further demonstrates the efficacy and tolerability profile of Biktarvy for the treatment of HIV in adults with no prior antiretroviral therapy history. Additionally, the results from the pooled analysis of Study 1489 and Study 1490 showed that 99% of participants who initiated treatment with Biktarvy and remained in the study for all 240 weeks achieved and maintained an undetectable viral load (HIV-1 RNA <50 copies/mL) through five years of follow-up (Week 240, 1489: n=208/213; 1490: n=218/219, missing equals excluded analysis). In addition to high rates of virologic suppression, participants achieved a median increase in CD4 count of 317 cells/ $\mu$ l from baseline at Week 240. The data support the long-term use of Biktarvy, with no significant changes to metabolic, bone, and renal markers.

“As we strive to optimize HIV treatment and advance scientific innovation, we’re committed to tailoring our research to address the individual needs of all people with HIV, including those with comorbidities,” said Jared Baeten, MD, PhD, Vice President, HIV Clinical Development, Gilead Sciences. “The HIV treatment research data presented at the 24th International AIDS Conference are an important step in deepening our understanding of how to support the long-term and overall health of a broad range of people with HIV worldwide.”

The long-term data from Study 1489 and 1490 further reinforce Biktarvy’s safety profile. Across both studies, 10 participants (n=10/634) experienced a study-drug related AE that led to drug discontinuation. The findings demonstrated minimal impact on bone mineral density (BMD) outcomes through five years. Mean percentage changes in hip and spine BMD through Week 240 in Biktarvy participants did not exceed -0.6%. Through five years, numerically small median changes in eGFR and stable TC:HDL ratios were observed in both studies. Among study participants, median change in weight from baseline through to Week 240 was +6.1kg. This finding is consistent with previously presented data. Initiation of therapy generally leads to weight gain in people with HIV who have no prior treatment history. Some of which is at least partially attributable to a return-to-health effect; however, weight gain is multifactorial in nature. Although it is often attributed to specific drugs, including TAF and integrase inhibitors, a growing body of evidence suggests that these drugs do not cause weight gain, but instead are “weight neutral”.

There is currently no cure for HIV or AIDS.

## **About ALLIANCE (NCT03547908)**

ALLIANCE is a Phase 3, randomized, double-blind study designed to evaluate the safety and efficacy of Biktarvy or DTG+F/TDF (with placebo) in adults initiating treatment for HIV/hepatitis B (HBV) co-infection. The primary endpoints evaluated the proportion of adults with HIV-1 RNA suppression (<50 copies/mL) and proportion of adults with plasma HBV DNA suppression (<29 IU/mL) at Week 48. Secondary endpoints will include efficacy of Biktarvy versus DTG+F/TDF by achievement of HIV-1 RNA suppression (<50 copies/mL), HBV DNA suppression (< 29 IU/mL), and the safety and tolerability of the two treatment groups at Week 96. At Week 48 and Week 96, ALT normalization, and hepatitis B surface antibody (HBsAg) loss are evaluated.

For further information, please see <https://clinicaltrials.gov/ct2/show/NCT03547908>

## **About Studies 1489 and 1490**

Study 1489 and Study 1490 are Phase 3, randomized, double-blind, active-controlled studies. For 144 weeks, treatment-naïve participants were blinded to receive either Biktarvy (n=634) or a dolutegravir-containing triple therapy (n=640). The primary endpoint was the proportion of adults with HIV-1 RNA <50 copies/mL at Week 48 using the FDA snapshot algorithm. Secondary endpoints included efficacy, safety, and tolerability assessed through Weeks 96 and 144. Beyond week 144, participants were able to receive Biktarvy in an active open-label extension phase for up to 96 weeks.

## **About Biktarvy**

Biktarvy is a complete HIV treatment that combines three powerful medicines to form the smallest 3-drug, integrase strand transfer inhibitor (INSTI)-based single-tablet regimen (STR) available, offering simple once-daily dosing with or without food, with a limited drug interaction potential and a high barrier to resistance. Biktarvy combines the novel, unboosted INSTI bicitgravir, with the Descovy® (emtricitabine 200 mg/tenofovir alafenamide 25 mg tablets, F/TAF) backbone. Biktarvy is a complete STR and should not be taken with other HIV medicines.