GILEAD | Medical Information

Biktarvy® (BIC/FTC/TAF) Use for HIV-1 Post-Exposure Prophylaxis

This document is in response to your request for information regarding Biktarvy® (bictegravir/emtricitabine/tenofovir alafenamide [BIC/FTC/TAF]) and its use for HIV-1 post-exposure prophylaxis (PEP).

Some data may be outside of the US FDA-approved prescribing information. In providing this data, Gilead Sciences, Inc. is not making any representation as to its clinical relevance or to the use of any Gilead product(s). For information about the approved conditions of use of any Gilead drug product, please consult the FDA-approved prescribing information.

The full indication, important safety information, and boxed warnings are available at: www.gilead.com/-/media/files/pdfs/medicines/hiv/biktarvy/biktarvy_pi.

Summary

Product Labeling[1]

BIC/FTC/TAF is a three-drug combination of BIC, an HIV-1 integrase strand transfer inhibitor (INSTI), and FTC and TAF, both HIV-1 nucleos(t)ide analog reverse transcriptase inhibitors (NRTIs), and is indicated as a complete regimen for the treatment of HIV-1 infection in adults and pediatric patients weighing at least 14 kg:

- who have no ARV treatment history or
- to replace the current ARV regimen in those who are virologically suppressed (HIV-1 RNA <50 copies per mL) on a stable ARV regimen with no known or suspected substitutions associated with resistance to BIC or tenofovir.

BIC/FTC/TAF is not indicated for use for HIV-1 PEP.

Clinical Data on BIC/FTC/TAF Use for PEP

- In a randomized, controlled trial that evaluated the tolerability and adherence to 28 days of BIC/FTC/TAF as HIV PEP with text message support vs standard of care (N=119), 90/102 participants (88%) with available data completed ≥28 days of PEP. No HIV seroconversions occurred among the 66 participants tested at Week 12. AEs associated with BIC/FTC/TAF were mostly mild, and the most common AEs included fatigue (20%), nausea (12%), diarrhea (8%), and headache (8%).
- In a single-arm, open-label trial that evaluated the safety, tolerability, and adherence to BIC/FTC/TAF for prophylaxis following potential HIV-1 exposure (N=112), 96.4% of participants completed the 28-day PEP regimen, with 98.9% adherence. There were no HIV seroconversions through 24 weeks. AEs attributed to BIC/FTC/TAF were mild and included headache (n=2), diarrhea (n=2), and nausea (n=1).
- In a non-randomized, open-label trial that evaluated the safety, tolerability, and acceptability of BIC/FTC/TAF for prophylaxis following potential exposure to HIV-1 (N=52), 90.4% of participants completed the 28-day course of BIC/FTC/TAF with no HIV seroconversions when tested at Week 4 or at the 3-month interview. Most AEs were Grade 1 and included vomiting (15.4%), fatigue (9.6%), and diarrhea (7.7%).

Clinical Data on BIC/FTC/TAF Use for PEP

Tolerability and Adherence to BIC/FTC/TAF as HIV PEP[2]

Study design and baseline demographics

A randomized, controlled trial evaluated the tolerability and adherence to BIC/FTC/TAF as HIV PEP with text message support vs standard of care. Key inclusion criteria were HIV-negative individuals aged ≥18 years who had initiated PEP within the past 6 days for sexual exposure and were able/willing to receive texts via mobile phone. The study was a switch study at randomization, with a median of 2 days on PEP before switching to BIC/FTC/TAF to complete 28 days of PEP. HIV status was assessed at baseline, Week 6, and Week 12. Additional outcomes included adherence, assessed via telephone call at Week 4, and AEs, assessed at Week 4 and Week 13 follow-up visits. A total of 120 participants enrolled in the trial; 1 participant was HIV seropositive at baseline and was not included in the analysis. Baseline demographics are listed in Table 1.

Table 1. Select Baseline Demographics (Tan et al)[2]

Key Demographics and Characteristics		BIC/FTC/TAF (N=119)
Age, median (Q1, Q3), years		29.3 (25.8–34.4)
Sexual orientation and gender, n (%)	MSM	97 (81)
	Heterosexual men	16 (13)
	Heterosexual women	7 (6)
Type of condomless exposure,[a] n (%)	Anal insertive	40 (34)
	Anal receptive with ejaculation	36 (30)
	Anal receptive without ejaculation	21 (18)
	Vaginal insertive	15 (13)
	Vaginal receptive with ejaculation	4 (3)
	Vaginal receptive without ejaculation	3 (3)
Previously used PEP, n (%)	0	91 (77)
	1	24 (20)
	2	4 (3)
Initially prescribed PEP regimen, %	DTG + TDF/FTC	106 (89)
	RAL + TDF/FTC	2 (2)
	BIC/FTC/TAF	11 (9)
Time from exposure to PEP initiation, median (Q1, Q3), hours		23 (13, 39)

Abbreviations: DTG=dolutegravir; MSM=men who have sex with men; Q=quartile; RAL=raltegravir; TDF=tenofovir disoproxil fumarate.
[a]Report includes the highest-risk type of sexual exposure.

Results

A total of 90 of the 102 participants (88%) with available data reported completing ≥28 days of PEP. No HIV seroconversions occurred among the 66 participants (55%) who were tested at Week 12. By the final visit, 28 participants (23%) had initiated PrEP. AEs associated with the study drug were mostly mild, and the most common AEs included fatigue (20%), nausea (12%), diarrhea (8%), and headache (8%). Only 10% of participants experienced AEs of Grade ≥2 severity, which included diarrhea (3%) and fatigue (2%).

Prospective Study of BIC/FTC/TAF as HIV-1 PEP[3]

Study design and baseline demographics

A prospective, single-arm, open-label, single-site trial evaluated the safety, tolerability, and adherence to co-formulated BIC/FTC/TAF for prophylaxis following potential exposure to HIV-1. Key inclusion criteria were HIV-negative individuals aged ≥18 years who presented to the clinic within 72 hours after potential sexual exposure to HIV-1. Participants received a fixed-dose formulation of BIC/FTC/TAF and were instructed to take 1 tablet once a day for 28 days. Participants were assessed with laboratory tests at baseline and 2, 4, 12 and 24 weeks; tests included serologies, biochemistry, liver function tests, glucose, and lipids. HIV RNA was tested to exclude participants with acute-stage HIV. Analyzed endpoints included HIV diagnosis, completion of PEP, as well as PEP adherence via self-reports and pill counts. A total of 112 participants enrolled in the trial. Baseline demographics are listed in Table 2.

Table 2. Select Baseline Demographics (Liu et al)[3]

Key Demographics and Characteristics		BIC/FTC/TAF (N=112)
Age, mean years ± SD		30±8
Male, n (%)		109 (97.3)
Type of exposure, n (%)	Anal sex	58 (51.8)
	Vaginal intercourse	43 (38.4)
	Oral sex	29 (25.9)
Time from exposure, mean h ± SD		27.5±18.8
≤24 h, n (%)		54 (48.2)
25−48 h, n (%)		45 (40.2)
49−72 h, n (%)		13 (11.6)

Results

Through 24 weeks, there were no HIV seroconversions. Most participants (96.4%) had completed the 28-day PEP regimen, with a rate of adherence to all expected doses of 98.9% by self-report and 98.5% by pill count. Two participants did not complete the PEP regimen because the source partner was found to be HIV negative; 1 participant was excluded due to HBV; and 1 participant discontinued due to their own decision.
AEs attributed to study drug were mild and included headache (n=2), diarrhea (n=2), and nausea (n=1), all of which resolved on their own without discontinuation of BIC/FTC/TAF. Laboratory abnormalities included Grade 1 elevation of serum creatinine in 4 participants.

Single-Arm Trial of BIC/FTC/TAF as nPEP[4]

Study design and baseline demographics

A non-randomized, single-site, open-label, single-arm trial evaluated the safety, tolerability, and acceptability of a fixed-dose formulation of BIC/FTC/TAF for prophylaxis following potential non-occupational exposure to HIV-1. The study enrolled 52 HIV-negative participants with possible high-risk sexual exposure to HIV-1 recent enough to permit them to receive the first dose of study medication within 72 hours from the end of the exposure. Participants received a fixed-dose formulation of BIC/FTC/TAF and were instructed to take

1 tablet once a day for 28 days. Participants were assessed at 2 and 4 weeks and at 3 months. The primary endpoints were nPEP failure, as measured by HIV seroconversion during study participation, and safety and tolerability of BIC/FTC/TAF.

The median age of participants was 37.2 years. Reasons for initiating nPEP included condomless receptive anal intercourse (51.9%), insertive anal intercourse (42.3%), insertive or receptive vaginal intercourse (5.8% for each), and oral intercourse (57.7%). Over half of participants (55.8%) reported more than one potential exposure, and 15.4% reported having unprotected intercourse with a known HIV-positive partner.

Results

Most of the participants (90.4%) completed the 28-day BIC/FTC/TAF course with no HIV seroconversions detected when tested at Week 4 or at the 3-month interview. Five participants were lost to follow-up.

The most commonly reported AEs included nausea with or without vomiting (15.4%), fatigue (9.6%), and diarrhea (7.7%). All AEs were Grade 1, except for a single report of Grade 2 fatigue, which was associated with discontinuation of BIC/FTC/TAF. Laboratory abnormalities were observed in 9 participants: 2 had Grade 1 increased transaminases, and 7 had decreased CrCl, including 4 with Grade 2 decreased CrCl. All laboratory abnormalities returned to normal upon completion of the BIC/FTC/TAF course.

References

1. Enclosed, Gilead Sciences Inc. BIKTARVY® (bictegravir, emtricitabine, and tenofovir alafenamide) tablets, for oral use. US Prescribing Information. Foster City, CA.
2. Tan DHS, Persaud R, Qamar A, et al. BIC/FTC/TAF as HIV PEP Was Well-Tolerated With High Adherence and No Seroconversions. [Poster 1134]. Paper presented at: Conference on Retroviruses and Opportunistic Infections (CROI); March 3-6, 2024; Denver, Colorado.
3. Liu A, Xin R, Zhang H, et al. An open-label evaluation of safety and tolerability of coformulated bictegravir/emtricitabine/tenofovir alafenamide for post-exposure prophylaxis following potential exposure to human immunodeficiency virus-1. *Chinese Medical Journal.* 2022;135(22):2725-2729. https://www.ncbi.nlm.nih.gov/pubmed/36719359
4. Mayer K. H, Gelman M, Holmes J, Kraft J, Melbourne K, Mimiaga M. J. Safety and Tolerability of Once Daily Coformulated Bictegravir, Emtricitabine, and Tenofovir Alafenamide for Postexposure Prophylaxis After Sexual Exposure. *J Acquir Immune Defic Syndr.* 2022;90(1):27-32.

Abbreviations

AE=adverse event
ARV=antiretroviral
BIC=bictegravir
FTC=emtricitabine
nPEP=non-occupational PEP
PEP=post-exposure prophylaxis
PrEP=pre-exposure prophylaxis
TAF=tenofovir alafenamide

Product Label

For the full indication, important safety information, and boxed warning(s), please refer to the Biktarvy US Prescribing Information available at: www.gilead.com/-/media/files/pdfs/medicines/hiv/biktarvy/biktarvy_pi.

Follow-Up

For any additional questions, please contact Gilead Medical Information at:

☎1-866-MEDI-GSI (1-866-633-4474) or 🖱 www.askgileadmedical.com

Adverse Event Reporting

Please report all adverse events to:

Gilead Global Patient Safety ☎ 1-800-445-3235, option 3 or
🖱 www.gilead.com/utility/contact/report-an-adverse-event

FDA MedWatch Program by ☎ 1-800-FDA-1088 or ✉MedWatch, FDA, 5600 Fishers Ln, Rockville, MD 20852 or 🖱 www.accessdata.fda.gov/scripts/medwatch

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