GILEAD | Medical Information

Descovy for PrEP® (FTC/TAF) Non-Daily Dosing

This document is a summary of available data regarding non-daily dosing of Descovy for PrEP® (emtricitabine/tenofovir alafenamide [FTC/TAF] for HIV-1 pre-exposure prophylaxis) and includes content from or references to clinical practice guidelines. The inclusion of information from the guidelines should not be interpreted as a treatment recommendation or an endorsement of the guidelines by Gilead Sciences.

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

Summary

Product Labeling[1]

The dosage of FTC/TAF for HIV-1 PrEP is one tablet (containing 200 mg of FTC and 25 mg of TAF) once daily taken orally with or without food in adults and adolescents without HIV-1 weighing ≥35 kg and with a CrCl ≥30 mL/min, excluding individuals at risk from receptive vaginal sex.

Clinical Practice Guidelines on Non-Daily Dosing of FTC/TAF[2]

Non-daily dosing should not be prescribed with FTC/TAF because its use for pericoital dosing has not been approved by the FDA. The “2-1-1” regimen (also called event-driven, intermittent, or “on-demand”) is a non-daily PrEP regimen that times oral FTC/TDF doses in relation to sexual intercourse events.

Clinical Data on Non-Daily Dosing of FTC/TAF

The CHAPS study evaluated the efficacy of several on-demand drug and dosing regimens for PrEP (including FTC/TAF) as well as the PK and PD parameters in males who were eligible for VMMC. PK and PD data from participants enrolled from South Africa and Uganda are available.[3,4]

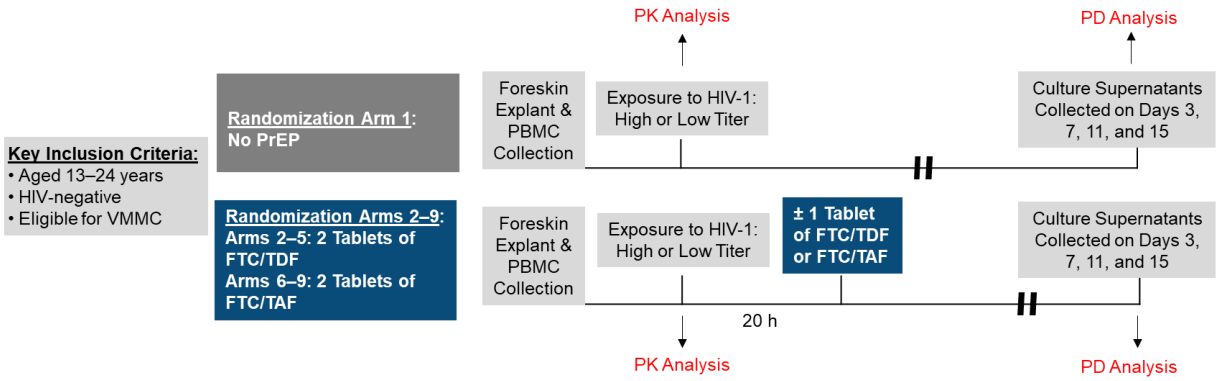
- For all dose regimens evaluated, PrEP with FTC/TAF resulted in higher TFV-DP levels in foreskin explants and PBMCs than did PrEP with FTC/TDF.[3]
- 2 + 1 PrEP dosing tended to result in higher TFV-DP levels in foreskin explants than a single dose of 2 tablets.[3]
- A double dose of either FTC/TDF or FTC/TAF given once either 5 or 21 hours before *ex vivo* HIV-challenge provided protection of foreskin tissue.[3]

Clinical Data - CHAPS Study

Study Design

A phase 2, open-label, randomized controlled study evaluated the efficacy of several on-demand PrEP drug and dosing regimens for HIV-negative males between 13 and 24 years of age who were eligible for VMMC (Figure 1). The study was conducted in Uganda and South Africa. Efficacy was assessed using p24 antigen concentrations. PK and PD assessments, including TFV-DP and FTC-TP concentrations and a parallel evaluation in isolated PBMCs, were also performed.[3] PK and PD data from enrolled participants have been summarized by Herrera et al.[3,4]

Figure 1. Study Design[3]



Note: Sixteen participants were recruited for each randomization arm.

Table 1. Randomization Arms[4]

Arm	Drug	n	Dose 1	Dose 2 (24 h Later, ± 1 h)	Interval Between Last PrEP Dose and VMMC, h ± 1 h
1	Control	16	–	–	–
2	FTC/TDF	16	2 tablets	–	5
3	FTC/TDF	16	2 tablets	–	21
4	FTC/TDF	16	2 tablets	1 tablet	5
5	FTC/TDF	16	2 tablets	1 tablet	21
6	FTC/TAF	16	2 tablets	–	5
7	FTC/TAF	16	2 tablets	–	21
8	FTC/TAF	16	2 tablets	1 tablet	5
9	FTC/TAF	16	2 tablets	1 tablet	21

Results[3,4]

There was no clear superiority of TAF to TDF in protecting foreskin against HIV acquisition. However, PrEP with FTC/TAF resulted in higher TFV-DP levels in foreskin explants and PBMCs than did PrEP with FTC/TDF, which suggests that protection may be of longer duration, or that the dosing requirements for on-demand FTC/TAF are somewhat lower than for FTC/TDF. Participants receiving a 2+ 1 regimen also had higher TFV-DP levels in foreskin than a single dose of 2 tablets. p24 concentrations in foreskin explants and PBMCs at Day 15 were similar in participants regardless of whether they had additional *ex vivo* exposure to their initial PrEP agent 20 hours later. The study authors concluded that *ex vivo*

2 + 1 tablet dosing confers similar protection of foreskin tissue against acquisition of HIV-1 as a single double dose PrEP and that the protection is sustained to at least 21 hours after ingestion of the last PrEP dose.

References

1. Enclosed. Gilead Sciences Inc, DESCOVY® (emtricitabine and tenofovir alafenamide) tablets, for oral use. U. S. Prescribing Information. Foster City, CA.
2. Centers for Disease Control and Prevention (CDC). *US Public Health Service: Preexposure Prophylaxis for the Prevention of HIV Infection in the United States—2021 Update: Clinical Providers' Supplement*. 2021. December.
3. Herrera C, Serwanga J, Else L, et al. Dose finding study for on-demand HIV pre-exposure prophylaxis for insertive sex in sub-Saharan Africa: results from the CHAPS open label randomised controlled trial. *EBioMedicine*. 2023;93:104648.
4. Herrera C, Serwanga J, Else L, et al. Dose finding study for on-demand HIV pre-exposure prophylaxis for insertive sex in sub-Saharan Africa: results from the CHAPS open label randomised controlled trial [Supplement]. *EBioMedicine*. 2023;93:104648.

Abbreviations

FTC=emtricitabine
FTC-TP= emtricitabine-triphosphate
PBMC=peripheral blood mononuclear cells
PD=pharmacodynamic(s)
PK=pharmacokinetic(s)
PrEP=pre-exposure prophylaxis
TAF=tenofovir alafenamide fumarate
TDF=tenofovir disoproxil fumarate
TFV-DP=tenofovir diphosphate
VMMC=voluntary medical male circumcision

Product Label

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

Follow-Up

For any additional questions, please contact Gilead Medical Information at:
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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 8 www.accessdata.fda.gov/scripts/medwatch

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