Long term use, HIV testing and effectiveness in individuals on CAB LA PrEP in the Trio Health Cohort

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Richard Elion[1], Gayathri Sridhar[2], Isobel McEwen[1], Leigh Ragone[2], Annemiek de Ruiter[3], Michael Aboud[3], Jean van Wyk[3], Kenneth Mayer[4], Karam Mounzer[5], Moti Ramgopal[6], Vani Vannappagari[2]
[1]Trio Health, Louisville CO; [2]ViiV Healthcare, Durham, NC; [3]ViiV Healthcare, London, England, UK; [4]Fenway Health, Boston, MA; [5]PhilaFight, Philadelphia PA; [6]Midway Specialty Care, Fort Pierce FL

BACKGROUND

- Apretude, or long-acting cabotegravir for pre-exposure prophylaxis (CAB LA PrEP; the first injectable for HIV PrEP FDA approved in December 2021) is indicated in at-risk adults and adolescents to reduce the risk of sexually-acquired HIV-1 infection and injected every 2 months after two initiation injections given 1-month apart.

- CDC guidelines require a negative antigen/antibody (AgAb) test and an undetectable HIV-RNA test prior to initiating CAB LA PrEP (with or without an oral cabotegravir lead-in), plus subsequent HIV status confirmations prior to subsequent injections (negative results with an antigen/antibody-specific test should be confirmed with an RNA test as per label) [1]. With drug resistance as a concern, confirmation of HIV status and good adherence are crucial.

- In this study, we assessed CAB LA PrEP use, HIV testing patterns, persistence, adherence, and HIV acquisition, using electronic medical record (EMR) data from the Trio Health database

METHODS

Study Population:
Adults without HIV who initiated CAB LA for PrEP between December 2021-February 2025 (retrospective EMR data from the Trio Health HIV Network in the U.S. population).

Definitions and Outcomes:
HIV Testing: Either HIV Ag/Ab or RNA assessed for both initial injection (-30 days) and follow-up injections (±7 days).

Adherence:
Continuation injections are based on timing after the prior injection: on-time (53–67 days), delayed (68–112 days), missed (113–127 days), and discontinuation (no injection after >127 days).

Effectiveness:
Incident HIV: detectable HIV RNA and/or positive Ag/Ab test while on CAB LA PrEP.

References: [1]Centers for Disease Control and Prevention. (2025, Feb 10). *Clinical Guidance for PrEP*

Real-world evidence demonstrates the high effectiveness of CAB LA PrEP's in preventing HIV acquisition with high adherence (83% on-time initiation, 62% on-time continuation), though opportunities exist to improve HIV testing practices around subsequent injections.

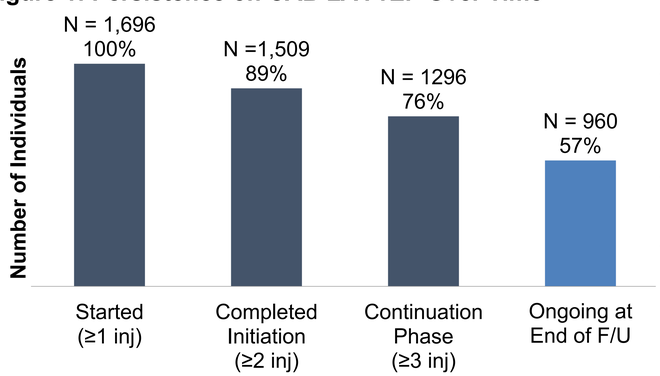
RESULTS

Population

- 1,696 individuals received at least one injection of CAB LA for PrEP between December 2021 and February 2025. These individuals were followed for a median of 12.1 months (IQR: 5.9-19.8).
- The population had a median age of 34 years (IQR: 28-43), 83% male gender, 14% female, 3% transgender; 52% White, 28% Black or African American, 23% Hispanic or Latino; 70% had prior oral PrEP history.

Persistence

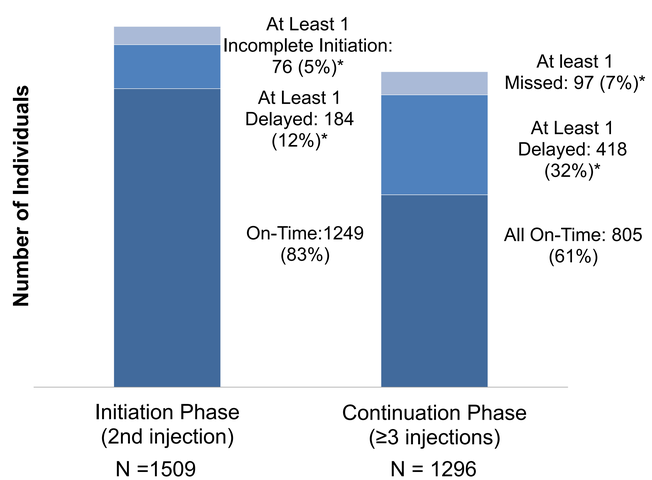
Figure 1: Persistence on CAB LA PrEP Over Time



- 89% completed initiation; 64% of completed initiators were ongoing at end of follow-up
- Median 6 injections (IQR: 4-10) over 13 months
- 36% discontinued; 14% re-initiated within 6 months

Adherence

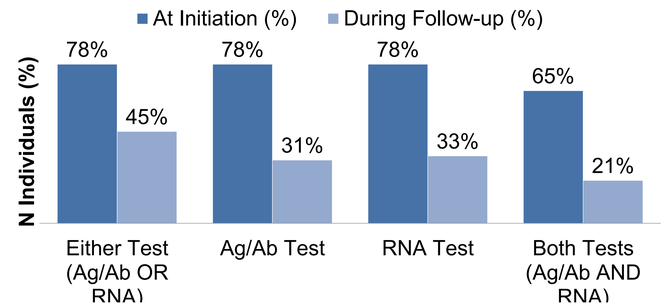
Figure 2: Adherence to CAB LA PrEP by Injection Phase



- Initiation: 83% had an on time second injection, and 12% delayed
- Continuation: 61% had all continuation injections on-time, 32% with at least one delayed, and 7% with at least one missed
- Median delay of 7 days in the continuation phase

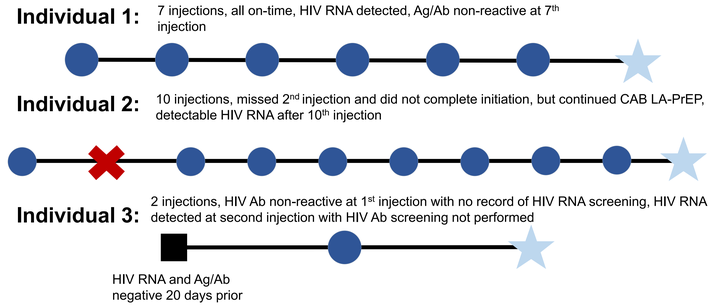
Testing

Figure 3: HIV Testing while on CAB LA PrEP



- Testing compliance decreased from initiation to follow-up
- 65% had both tests at initiation, but only 21% had both tests at all injections
- 45% had at least one test at all follow-up injections

Effectiveness



- 3 HIV diagnosis among 1,696 individuals (0.2%)
- 2 incident cases, 1 potential prevalent case
- All treated with DRV/c/FTC/TAF; two achieved viral suppression, one not yet in 2 months of follow-up
- No resistance mutations detected in individuals one and two, individual 3 was not tested

CONCLUSIONS

- Real-world data on CAB LA PrEP use in the U.S. showed that while a high proportion of individuals had HIV testing prior to initiating CAB LA for PrEP, many had at least one test at subsequent injections.
- Adherence to the dosing schedule was good, with brief delays; however, variations in perceived HIV acquisition risk likely contributed to patterns of discontinuation and reinitiation, while gaps in oral bridging documentation may have inflated delays and discontinuation rates.