WEIGHT CHANGE AFTER CAB-LA INITIATION AMONG PrEP-NAIVE USERS AND DAILY TDF/FTC SWITCHERS

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BACKGROUND

Weight gain has been reported with integrase inhibitors in HIV treatment, raising concerns for long-acting cabotegravir (CAB-LA) used in HIV prevention. While clinical trials demonstrated CAB-LA's superior efficacy for HIV prevention, post-hoc analyses revealed modest weight increases among CAB-LA recipients compared to TDF/FTC users, real-world data remain, however, limited.[1-2]

In HIV treatment settings, integrase inhibitor use has been associated with weight gains of 3-6 kg in clinical trials.[3] Additionally, discontinuation of TDF has been independently linked to weight increases.[4]
Together, these findings suggest that switching from daily oral PrEP with TDF/FTC to CAB-LA could alter weight trajectories.

This study aims to evaluate weight changes in real-world CAB-LA users, comparing PrEP-naive individuals to those switching from daily TDF/FTC.

METHODS

We analyzed a prospective cohort initiating CAB-LA for PrEP. Weight and BMI were measured at each injection visit. Participants were classified as PrEP-naive or Switchers (on TDF/FTC at CAB-LA initiation).

Absolute (kg), relative (%) and BMI changes were calculated from first to latest available dose, and standardized analyses were performed from dose 1 dose 4. Between-group differences were assessed with Welch's t-test and Mann–Whitney U.

Up to the 4th CAB-LA injection, weight remained stable, with no clinically meaningful gain observed in either PrEP-naive initiators or those switching from daily TDF/FTC

RESULTS

A total of 171 individuals were initiated on CAB-LA as PrEP, including 147 (86%) who were taking daily TDF/FTC at initiation (*Switchers*) and 24 (14%) who were PrEP-naive. Among CAB-LA users, 165 (96%) completed follow-up through the 4th injection (141 Switchers and 24 PrEP-naive).
From dose 1 to the latest available injection, mean Δweight was +0.32 kg (SD 2.8) in Switchers and –0.25 kg (SD 3.2) in PrEP-naive, corresponding to mean percentual Δweight of +0.5% and –0.3%, respectively (p=0.41).
Between dose 1 and dose 4, mean Δweight was +0.3 kg (range –9 to +12) among Switchers and –0.3 kg (range –10 to +5) among PrEP-naive, with a median Δweight of 0.0 kg in both groups (p=0.53).
Changes in BMI (ΔBMI) were minimal, and weight trajectories across doses 1–4 remained flat with overlapping standard errors, indicating no divergence between groups.

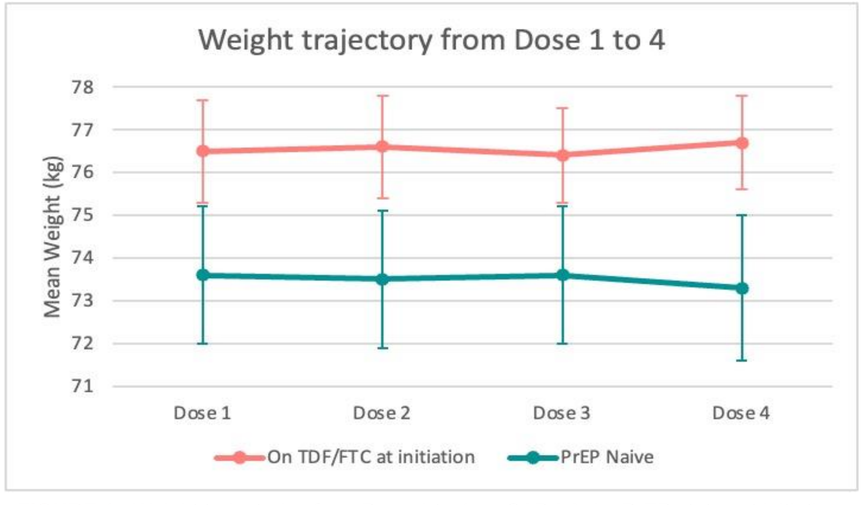


FIGURE 1. Weight trajectories from Dose 1 to 4 on CAB-LA, by PrEP status at initiation.

CONCLUSIONS

Up to the 4th CAB-LA injection, weight remained stable, with no clinically meaningful gain observed in either PrEP-naive initiators or those switching from daily TDF/FTC.

The absence of divergence between groups suggests that switching from oral PrEP does not modify weight outcomes under CAB-LA. Longer-term follow-up, particularly in PrEP-naive populations, is needed to confirm these findings.

PLAIN LANGUAGE SUMMARY

People using CAB-LA for HIV prevention experienced minimal weight changes over the first four doses, whether they were new to PrEP or switching from daily TDF/FTC pills.

Bibliography

1. Landovitz RJ, et al. *Cabotegravir for HIV Prevention in Cisgender Men and Transgender Women*. N Engl J Med. 2021;385(7):595-608.
2. Delany-Moretlwe S, et al. *Cabotegravir for the prevention of HIV-1 in women: results from HPTN 084, a phase 3, randomised clinical trial.* Lancet. 2022;399(10337):1779-1789.
3. Bourgi K, et al. *Weight gain among treatment-naïve persons with HIV starting integrase inhibitors compared to non-nucleoside reverse transcriptase inhibitors or protease inhibitors in a large observational cohort in the United States and Canada*. J Int AIDS Soc. 2020;23(4):e25484
4. Mallon PWG, et al. *Weight gain before and after switch from TDF to TAF in a U.S. cohort study*. J Int AIDS Soc.2021;24(4):e25702.

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