Introduction

- Weight gain has been reported when switching virologically suppressed PLWH to BIC or DTG and/or TDF to non-TDF regimens, but data is conflicting.
- Differences in weight gain among regimens may reflect drug-related weight suppression as opposed to gain, particularly after switch, dependent on the pre-switch components.
- CYP3A4 slow metabolizers of EFV experience more side effects and loss weight gain than intermediate or rapid metabolizers, and gain more weight when switching from EFV.
- Rapid metabolizers, who tolerate EFV better, gain as much weight as DTG-treated patients.
- There is growing evidence that weight differences between TDF/FDT and FITAF are due to TDF-associated weight suppression rather than TAF-induced weight gain.
- Weight increases are consistently lower in TDF-based treatment regimens compared to TAF-based and two-drug non-tenofovir containing regimens, and lower than placebo or cabotegravir in the setting of prevention.
- To date, no studies have evaluated the association between weight change and patient-reported outcomes (PROs) before and after switching from a stable ART regimen.

Methods

Virologically Suppressed Adults
- On a stable regimen of EFV/TDF/FTC for ≥ 6 months
- HIV-1 RNA < 50 c/mL for ≥ 6 months
- Normal liver & hematologic parameters
- No prohibited concomitant medications

Results

Participants completed the HIV Symptom Index (HIV-SI) and Pittsburgh Sleep Quality Index (PSQI) on Day 1, Week 4, Week 12 and Week 48.

- Weight was collected at every study visit (screening, Day 1, Weeks 4, 8, 12, 24, 36, and 48).
- Weight change was defined as: gain (> 5% increase), loss (> 5% decrease), neutral (< 3% change).

HIV-related symptoms were coded as: “Did not have this symptom” = 0; “Symptom did not bother me” = 1; “Symptom bothered me” = 2; “Symptom bothered me a lot” = 3.

Using mixed-effect generalized linear models we looked at the relationship between weight change and patient-reported outcomes (PROs) before and after switching from a stable ART regimen.

Further analysis will be conducted to determine if changes in individual symptoms influence weight change.

Conclusions

- No change in weight was observed after switching virologically suppressed PLWH from EFV to BIC and switching from TDF to TAF.
- Participants switched from EFV/FTC/TDF to BIC/FTC/TAF reported significant improvements in 17 out of 20 HIV-related symptoms on the HIV-SI and PSQI.
- There were no associations with weight change and overall changes in HIV-related symptoms or sleep quality, suggesting that overall symptomatic improvement or worsening did not contribute to either weight gain or loss.
- Further analysis will be conducted to determine if changes in individual symptoms influence weight change.

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References