EFFICACY OF BICTEGRAVIR/EMTRICITABINE/TENOFOVIR ALAFENAMIDE (B/F/TAF) VERSUS DOLUTEGRAVIR (DTG)-BASED 3-DRUG REGIMENS IN ADULTS WITH HIV WHO HAVE SUBOPTIMAL ANTIRETROVIRAL ADHERENCE

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Background:
Adherence to daily antiretroviral therapy is important for sustaining HIV suppression. B/F/TAF Studies 1489,1490,4458,1844 and 4030 demonstrated noninferior efficacy of B/F/TAF versus DTG + 2 nucleoside reverse transcriptase inhibitors (NRTIs). We retrospectively assessed drug adherence and effect on virologic outcomes.

Methods:
All studies were double-blind, placebo-controlled, and enrolled treatment-naïve (1489,1490,4458) or virologically suppressed (1844,4030) adults. Participants were randomized 1:1 to receive B/F/TAF or DTG + 2 NRTIs plus placebo. Participants with ≥1 returned pill bottle and ≥1 on-treatment HIV-1 RNA measurement were included in the analysis. Adherence was calculated by pill count; virologic outcome was assessed by last on-treatment HIV-1 RNA.

Results:
Altogether, 2,622 participants were included . The proportions of participants with high (≥95%), intermediate (≥85%–<95%) or low (<85%) adherence were similar between the 2 groups; few had low adherence (B/F/TAF: 46 [3.5%]; DTG + 2 NRTIs: 69 [5.2%] through Week [W]48). Overall, 98.5% (n=1,287) in the B/F/TAF group and 98.2% (n=1,292) in the DTG + 2 NRTI group had virologic suppression at last on-treatment visit. In the B/F/TAF group, virologic suppression was similar in those with high and intermediate adherence versus low adherence; however, in the DTG + 2 NRTI group, virologic suppression was significantly higher in those with high and intermediate adherence compared with low adherence ($P \leq 0.002$). Similar results were observed at W144 in 2 studies (1489,1490) with additional follow-up data. Nine participants with low adherence had HIV-1 RNA ≥50 copies/mL at their last visit through W48: 3 subsequently resuppressed (B/F/TAF: 1; DTG + 2 NRTIs: 2), 5 discontinued (all DTG + 2 NRTIs) and 1 was lost to follow-up (B/F/TAF).

Conclusions:

Overall, most participants receiving either B/F/TAF or DTG + 2 NRTIs demonstrated ≥85% adherence. In those with suboptimal adherence, B/F/TAF treatment maintained high levels of virologic suppression, while those with suboptimal DTG + 2 NRTI adherence had reduced virologic suppression.

Disclosure of Interest Statement:
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