LONG TERM B/F/TAF SWITCH EFFICACY IN PATIENTS WITH ARCHIVED PREEXISTING RESISTANCE

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Background: Studies 1844 and 1878 demonstrated non-inferior efficacy of switching suppressed HIV-1-infected adults to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) versus continuing dolutegravir/abacavir/lamivudine (DTG/ABC/3TC) or boosted protease inhibitor (PI)-based regimens. At week 48, 93% of B/F/TAF participants versus 95% of DTG/ABC/3TC and 89% of PI participants had HIV-1 RNA <50 copies/mL by snapshot algorithm, after which B/F/TAF treatment continued open-label. Here, we present resistance analyses and virologic outcomes after 2 years of B/F/TAF treatment.

Methods: Archived preexisting HIV-1 drug resistance was assessed by historical genotypes (documented resistance to study drugs was exclusionary) and retrospective baseline proviral DNA genotyping (participants with resistance to study drugs detected post-randomization were allowed to remain on study). Virologic outcomes were based on last available on-treatment HIV-1 RNA.

Results: 572 participants switched to B/F/TAF and treated for a median of 108 weeks Pre-switch reverse transcriptase (RT) genotypic data were available for 78%(447/572) of B/F/TAF-treated participants and integrase data for 55%(314/572). Preexisting primary NRTI resistance (-R), NNRTI-R, and INSTI-R substitutions were observed in 16%(71/447), 21%(93/447), and 1.9%(6/314), respectively. High frequencies of NRTI-R substitutions M184V/I (9.8%, 44/447) and thymidine analog mutations (TAMs; 8.5%, 38/447) were detected by DNA genotyping. Substitutions associated with resistance to rilpivirine (RPV) were observed in 9.6%(43/447). On analysis, 99% (564/572) of B/F/TAF-treated participants remained suppressed including 95%(42/44) with archived M184V/I, 95%(36/38) with TAMs, 98%(42/43) with RPV-R, and 100%(6/6) with INSTI-R. No resistance developed in B/F/TAF-treated participants through week 48, and no participants met criteria for resistance testing after week 48.

Conclusions: Preexisting RT resistance was common among participants switching to B/F/TAF, notably RPV-R and previously unidentified M184V/I and TAMs. High rates of suppression were observed in the overall and drug resistant populations through 108 weeks of B/F/TAF treatment with no resistance development, indicating B/F/TAF as a durable switch option, including those with preexisting NNRTI and NRTI resistance.

Disclosure of Interest Statement: Nil