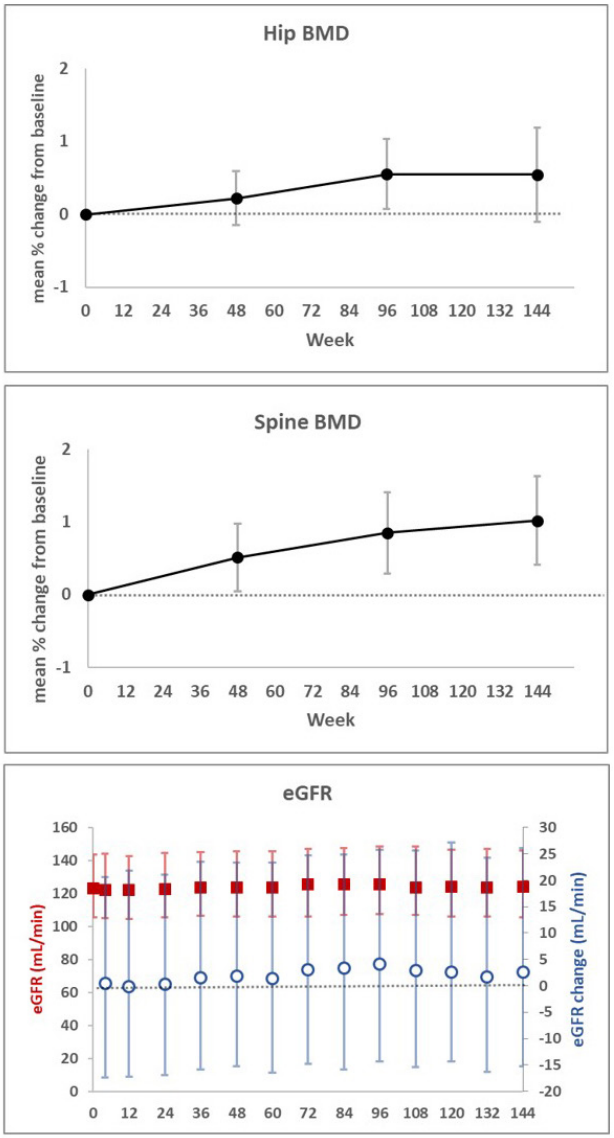
144. Participants in the F/TAF arm gained a median 2.3 kg (IQR -0.9-5.8) over 3 years of follow up.

Figure 1. Changes in hip and spine bone mineral density and in eGFR through Week 144



BMD: Bone Mineral Density, eGFR: estimated Glomerular Filtration Rate

Conclusion. The OLE of DISCOVER allowed for a long-term assessment (144 wks.) of F/TAF for PrEP. HIV incidence remained low with BMD and renal function parameters remaining stable through 144 weeks of follow-up. These findings demonstrate that F/TAF is a safe and effective option for long-term use in people who would benefit from PrEP.

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855. Persistence on F/TAF versus F/TDF for HIV Pre-Exposure Prophylaxis: A Real-World Evidence Analysis in the United States

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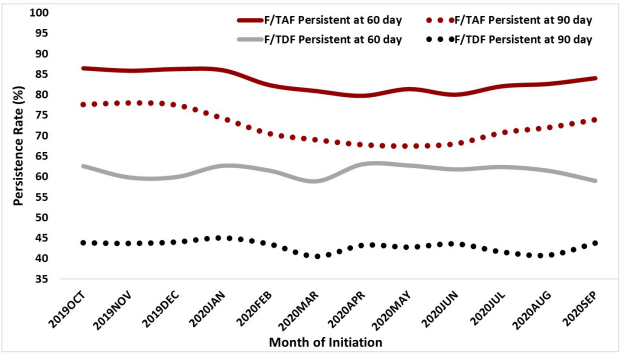
Session: P-49. HIV: Prevention

Background. Persistence to preexposure prophylaxis (PrEP) is an important determinant of its efficacy, but evidence on real-world persistence is lacking. This study assesses adherence to F/TDF and F/TAF for PrEP both in terms of discontinuation and re-initiation patterns.

Methods. We identified HIV-negative individuals in the United States who initiated F/TDF or F/TAF for PrEP between October 2019 and December 2020 from a de-identified prescription claims database; users taking generic F/TDF were excluded. Non-persistence was defined as a prescription fill gap of >30 days; discontinuation included switch from F/TDF to F/TAF or F/TAF to F/TDF. We used survival analyses to estimate persistence, Cox regressions to compare the hazard ratios (HR) of discontinuation, and logistic regression to compare the odds ratios of re-initiation after discontinuation.

Results. Among F/TAF users (N=82,402) median age at PrEP initiation was 35 years (interquartile range [IQR] 28–47) and median PrEP persistence was 4 months (IQR 1.8-8.9), compared to 31 years (IQR 25–40) and 2 months (IQR 1.0-3.8) for F/TDF users (N=48,501). PrEP persistence at 60 and 90 days was higher among F/TAF users than F/TDF users (Figure). F/TDF users were 2.5 times more likely to discontinue than F/TAF users, with more marked differences in older users than that in younger users (p for interaction between discontinuation and age group < 0.01, Table). We also observed a higher rate of discontinuation of F/TDF versus F/TAF if PrEP was prescribed by internal medicine or infectious disease physicians than by family medicine physicians (data not shown). After discontinuation, F/TAF users were 1.7 times more likely than F/TDF users to re-initiate PrEP; the association was not different by age.

Persistence rates of F/TAF and F/TDF for PrEP by time of PrEP initiation



Hazard ratios (HR) and corresponding 95% confidence intervals (CI) of non-persistence and odds ratios (OR) of re-initiation after discontinuation for users of F/TAF and F/TDF for PrEP in the US, Oct 2019 – Dec 2020

	F/TAF		F/TDF		HR of Discontinuation F/TDF vs F/TAF (95% CI)	OR of Re-initiation F/TAF vs F/TDF (95% CI)
	N (%)	Median Persistence in Month (IQR)	N (%)	Median Persistence in Month (IQR)		
All	82402	4.0 (1.8-8.9)	48501	2.0 (1.0-3.8)	**2.48 (2.44-2.52)**	**1.70 (1.65-1.75)**
Age at PrEP initiation						
12-29	24296 (30%)	3.0 (1.0-6.2)	22242 (46%)	1.9 (1.0-3.3)	2.07 (2.02-2.13)	1.71 (1.63-1.80)
30-39	26032 (32%)	4.2 (1.9-8.9)	13898 (29%)	2.1 (1.0-4.0)	2.42 (2.35-2.49)	1.78 (1.68-1.88)
40+	32074 (39%)	5.3 (2.1-10.2)	12361 (26%)	2.2 (1.0-4.2)	2.75 (2.68-2.83)	1.69 (1.59-1.80)

Conclusion. In this real-world analysis, the F/TAF for PrEP regimen was associated with higher persistence and re-initiation than F/TDF for PrEP. These findings underscore the dynamic nature of PrEP utilization in the real-world and the importance of interventions aimed at improving PrEP persistence and re-initiation in people who would benefit from PrEP.

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