Characterization of Physician-Reported Outcomes of People With HIV Switching Treatment: Findings From a Real-World Survey in the United States

Poster C071

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Conclusions

- Switch of anti-retroviral (ARV) therapy (ART) in treatment-experienced people with HIV (PWH) was primarily due to physician decision
- Switches to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) were associated with less weight gain as a side effect from the physician's perspective as well as less laboratory monitoring compared to switching to non-B/F/TAF regimens
- More research is needed to investigate physician switch decisions

Plain Language Summary

- PWH often switch from one drug combination to another, and we wanted to investigate how this drug switching affects people
- We surveyed 60 doctors and 236 PWH who had received more than one treatment in the United States between July 2021 and March 2022. The people with HIV had already received one or more treatments and had switched to a different treatment type by the time they were surveyed. We compared people who had switched to B/F/TAF with those who had switched to another treatment
- Most of the time, people switched treatment due to the doctor's decision. From the doctors' point of view, people who switched to treatments other than B/F/TAF gained more weight as a side effect and had to undergo more tests
- More research is needed to understand the reasons doctors switch their patients to another treatment type

Introduction

- The ultimate aim of ART is to have complete viral suppression
- Suppression of viral load prevents the development of drug-resistance mutations, and improves CD4 T lymphocyte cell count, both key clinical outcomes
- PWH can change ART for many reasons, including poor viral suppression, side effects and poor adherence
- Understanding the drivers and outcomes of ART switching can benefit PWH through improved management of ART

Objectives

- This study investigated real-world physician-reported treatment outcomes in terms of side effects, adherence and healthcare resource utilization experienced by PWH who switched to B/F/TAF or other ARV regimens in the US

Methods

- Data were drawn from the Adelphi HIV II Disease Specific Programme™, a real-world, cross-sectional survey from physicians and PWH in the US from July 2021 to March 2022
- Physicians (Infectious Disease specialists or primary care physicians), who managed >10 PWH each month, provided data for treatment experienced PWH, including demographics, clinical characteristics, previous ARVs, reasons for discontinuing previous ART, and adherence
- Statistical comparisons were made using Fisher's exact (for categorical analysis) and t-tests (for numeric analysis); additional comparisons were descriptive in nature. Statistical analysis was performed in Stata 17.0

Results

- Physicians (n=60) provided data on 236 treatment experienced PWH
- Of these 236 treatment experienced PWH, 89 PWH were currently receiving B/F/TAF and 147 PWH were currently receiving other ART, detailed in **Table 1**

Table 1. Current ART For PWH Who Switched to ART Other Than B/F/TAF

Current ART, n (%)	Switchers to other ART (n=147)
Dolutegravir/lamivudine	27 (18.4)
Elvitegravir/cobicistat/tenofovir alafenamide/emtricitabine	17 (11.6)
Cabotegravir/rilpivirine	16 (10.9)
Rilpivirine/tenofovir alafenamide/emtricitabine	16 (10.9)
Darunavir/cobicistat/tenofovir alafenamide/emtricitabine	16 (10.9)
Elvitegravir/cobicistat/tenofovir disoproxil fumarate/emtricitabine	9 (6.1)
Dolutegravir/rilpivirine	8 (5.4)
Efavirenz/tenofovir disoproxil fumarate/emtricitabine	7 (4.8)
Dolutegravir/abacavir/lamivudine	4 (2.7)
Efavirenz/tenofovir disoproxil fumarate/lamivudine	2 (1.4)
Rilpivirine/tenofovir disoproxil fumarate/emtricitabine	1 (0.7)
Doravirine/tenofovir disoproxil fumarate/lamivudine	1 (0.7)
Multi-tablet regimens	23 (15.6)

Results

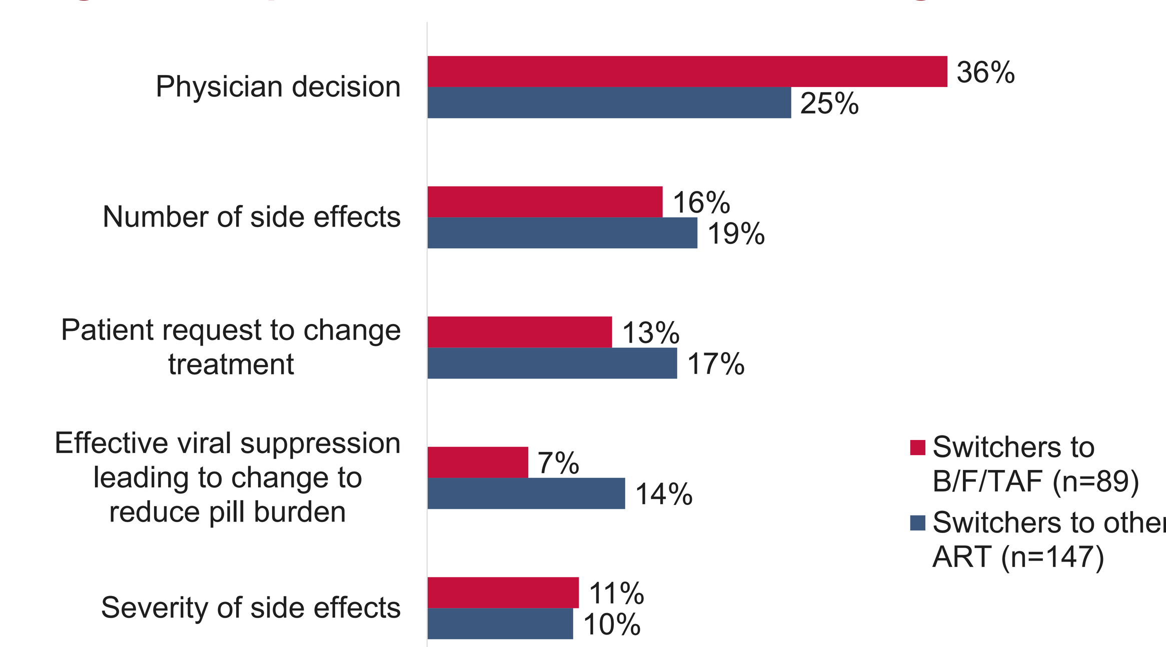
- Similar mean times from diagnosis were seen in both groups (B/F/TAF: 9.3 years; other ART: 10.3 years) as well as similar time on current ART (B/F/TAF: 1.8 years; other ART: 2.4 years)
- PWH had received a mean of 2.7 ARV regimens (B/F/TAF: 2.6; other ART: 2.8)
- Both groups of PWH were seen as being virally suppressed by their physicians (**Table 2**)

Table 2. Baseline Demographics

Demographics		Switchers to B/F/TAF (n=89)	Switchers to other ART (n=147)
Age, years, mean (SD)		48.7 (10.9)	51.2 (12.7)
Sex, %	Male (cisgender)	84	73
Ethnicity, %	White	43	41
	African American	38	41
Concomitant conditions, %	None	26	22
	Hypertension	39	37
	Dyslipidemia	25	29
Time since diagnosis, years, mean (SD)		n=76	n=128
		9.3 (8.6)	10.3 (9.5)
Number of treatment lines, mean (SD)		n=89	n=147
		2.6 (1.1)	2.7 (1.3)
Time on current ART, years, mean (SD)		n=88	n=133
		1.8 (1.1)	2.4 (2.0)
Currently virally suppressed? Yes, %		87	86

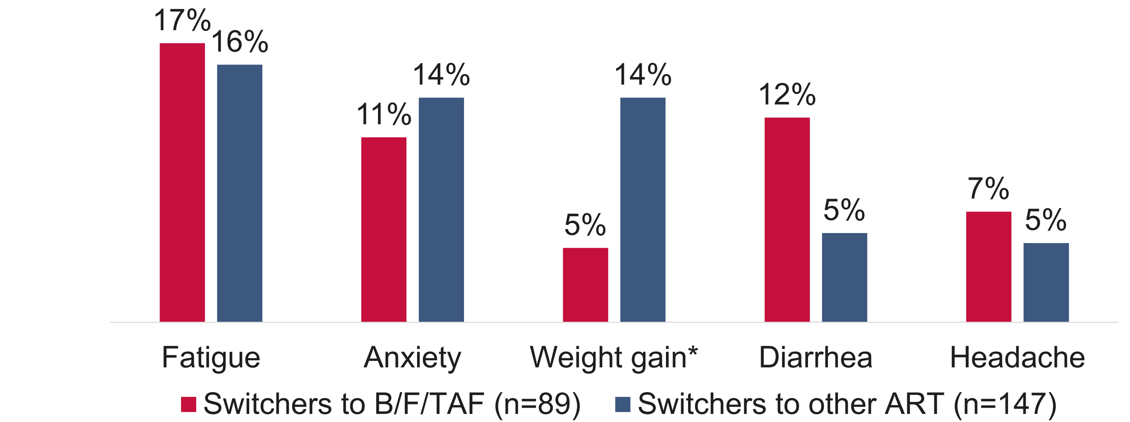
- The main reason for discontinuing a previous ART was due to physician decision. Side effects of the previous ART and patient request also played a role (**Figure 1**)
- The main side effect that led to discontinuation of previous ART was fatigue (data not shown)

Figure 1. Top Five Reasons For Discontinuing Previous ART



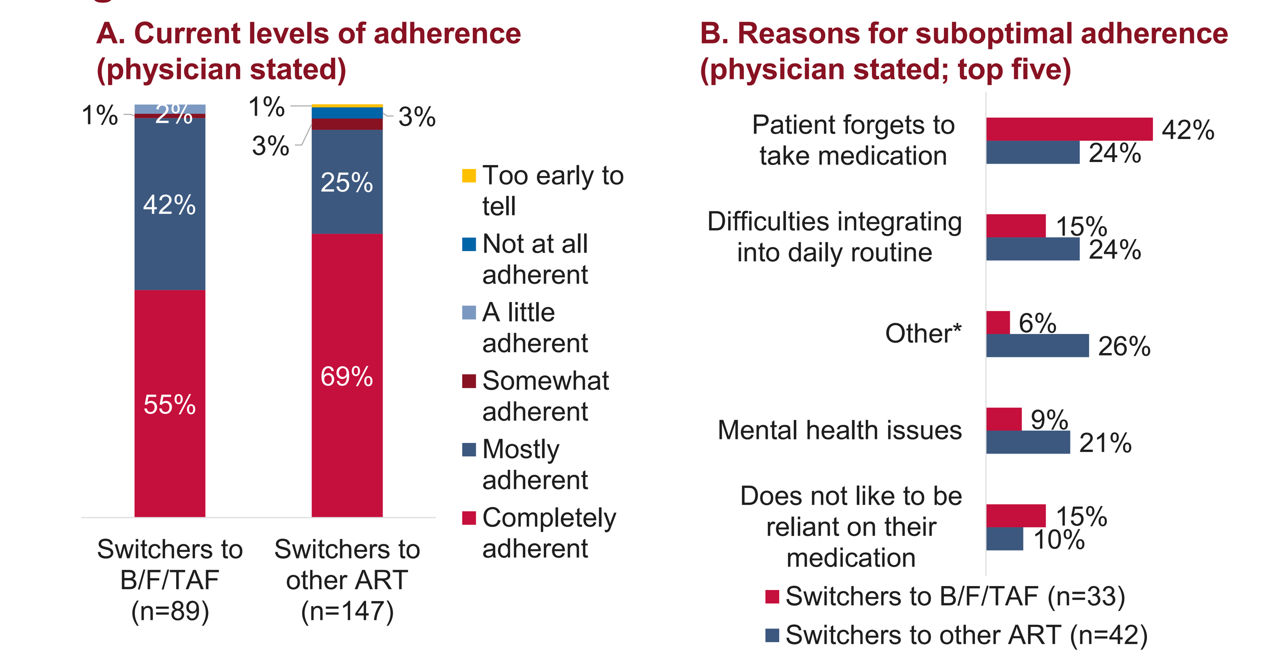
- Around 60% of PWH (62% switchers to B/F/TAF; 59% switchers to other ART) were experiencing no side effects on their current ART. The most common side effects in both groups were fatigue and anxiety; weight gain as a side effect was seen to be significantly different between the two groups (**Figure 2**)
- High levels of physician-stated adherence were seen in both groups of PWH; forgetfulness was the primary reason for poor adherence (**Figure 3**)

Figure 2. Top Five Current Side Effects On Current ART



*Significant difference seen

Figure 3. Current Levels of Adherence



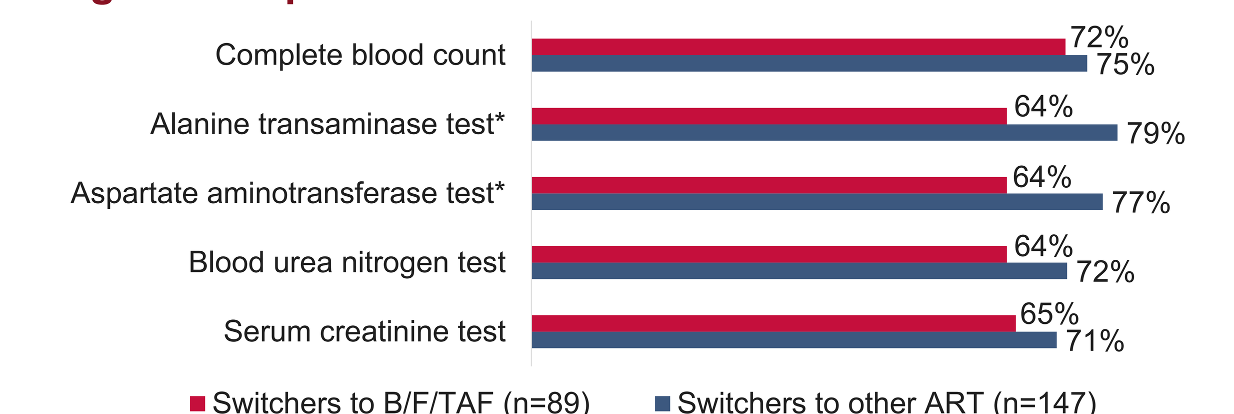
*Significant difference seen

- Switchers to other ART had higher HCRU in terms of tests used for monitoring their HIV (**Table 3** and **Figure 4**)

Table 3. Healthcare Resource Utilization

	Switchers to B/F/TAF (n=89)	Switchers to other ART (n=147)	P-value
Number of HIV-related hospitalizations in the last 12 months, mean (SD)	0.27 (0.65)	0.16 (0.53)	0.1758
Total number of tests performed in the last 12 months, mean (SD)	44.37 (38.4)	55.69 (45.2)	**0.0498**
Total number of tests used to monitor HIV, mean (SD)	17.57 (11.2)	22.49 (11.6)	**0.0016**

Figure 4. Top Five Tests Used to Monitor HIV



*Significant difference seen

References: **1.** Anderson P, et al. *Curr Med Res Opin* 2008;24:3063-72. **2.** Anderson P, et al. *Curr Med Res Opin* 2023;39:1-9.

Abbreviations: ARV, antiretroviral; ART, antiretroviral therapy; B/F/TAF, bictegravir/emtricitabine/tenofovir alafenamide; DSP, Disease Specific Programme ; HCRU, healthcare resource utilization; PRF, Patient Record Form; PWH, people with HIV

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The analysis described here used data from the Adelphi Real World DSP. The DSP is a wholly owned Adelphi Real World product. Gilead Sciences, Inc. is one of multiple subscribers to the DSP.

Disclosures: **WZ**, **JG**, **MC**, and **SP** are employees of Gilead Sciences, Inc. and own stocks/shares in Gilead Sciences, Inc. **FH** and **TH** are employees of Adelphi Real World.

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Limitations: The Disease Specific Programme (DSP) is not based on a true random sample of physicians or patients. While minimal inclusion criteria governed the selection of the participating physicians, participation is influenced by willingness to complete the survey
Identification of the target patient group is based on the judgement of the respondent physician and not a formalized diagnostic checklist, but is representative of physician's real-world classification of the patient. The point-in-time design of this study prevents any conclusions about causal relationships, however, identification of significant associations is possible. Physician reporting of adherence was based on a question within the patient record form (PRF); physician perception of PWH adherence can be unreliable. PWH provided adherence was also given, but not reported here. Weight gain as a side effect is physician stated at time of assessment after the switch and varies by patient.

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