

## Real-world experiences with TAF-based regimens

### OC-15 CHANGES IN BODY MASS INDEX AND LIPID PROFILE IN PWH SWITCHING TO A REGIMEN WITHOUT TAF VS PWH CONTINUING TAF. DATA FROM A REAL-LIFE SETTING

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**Background** Our aim was to investigate the role of switching from emtricitabine/tenofovir alafenamide (FTC/TAF) based regimen to a dolutegravir (DTG) containing two-drug regimen (2DR) vs continuing FTC/TAF on metabolic parameters.

**Material and methods** Consecutive people living with HIV infection (PWH) enrolled in a multicenter observational cohort (SCOLTA) project, on a stable FTC/TAF based regimen with a HIV-RNA <50 copies/ml were included. Changes from baseline (T0) to follow-up (T1, week 24) were analyzed.

**Results** Four hundred and eighty-seven PWH met the inclusion criteria, 375 (77.0%) were males, 32 (6.6%) diabetics.

At T0 main characteristics were (mean  $\pm$  standard deviation [SD]): age 49.4  $\pm$  12.0 years, body mass index (BMI) 25.5  $\pm$  4.2 kg/m<sup>2</sup>, total cholesterol (TC) 196  $\pm$  40 mg/dL, HDL cholesterol (HDL-c) 52  $\pm$  16 mg/dL, LDL-cholesterol (LDL-c) 116  $\pm$  35 mg/dL, glucose 96  $\pm$  28 mg/dL (92  $\pm$  15

in non-diabetic patients). CD4+ cell count median value was 680 cell/ $\mu$ L (interquartile range [IQR] 500–892), triglycerides (TGL) 116 mg/dL (IQR 83–159). 343 PWH were on FTC/TAF/bictegravir (BIC), 15 on FTC/TAF/DTG, 101 on DTG/lamivudine (3TC) and 28 on DTG/rilpivirine (RPV).

PWH switching to 2DR or continuing FTC/TAF had similar characteristics, except for HCV coinfection (8.7% vs 24.0%,  $p=0.0002$ ), baseline CD4 (median 744 and 646,  $p=0.0002$ ) and CDC stage C (8.5% vs 19.5%,  $p=0.004$ ). Weight, BMI and blood lipids were similar in the two groups. The previous regimen included cobicistat (COBI) in 268 PWH (36.4% in 2DR vs 61.7% in TAF,  $p<0.0001$ ): PWH with previous COBI entered the study with higher levels of TC (201 vs 188 mg/dL,  $p=0.0007$ ) and LDL-c (120 vs 110 mg/dL,  $p=0.002$ ).

Evaluating 2DR vs continuing FTC/TAF, in strata of switch from a regimen with or without COBI, we observed no difference in lipid profile and weight (table 1).

Previous regimens were INSTI-based in 74.1%, NNRTI-based in 13.6%, and PI-based in 12.3% of the sample. We found that the more marked TC decline was observed in PWH from PI-including regimens (-22.9 mg/dL, 95% confidence interval -33.2 to -12.6), whereas those from INSTI-including showed a limited decrease (-5.1 mg/dL, 95% CI -7.4 to -1.7) and those from NNRTI a not statistically significant increase (+7.4 mg/dL, 95% CI -1.8 to 16.5). The same trend emerged for LDL-c: -14.0 mg/dL (95% CI -23.1 to -4.9), -3.7 mg/dL (-6.8 to -0.6), and +6.8 mg/dL (95% CI -1.1 to 14.7) and this association was confirmed at multivariate model (MM).

In a MM including sex, age, previous COBI and drug class, and 2DR vs FTC/TAF, no significant difference was found in term of weight and blood lipid change between continuing FTC/TAF and switching to a 2DR.

**Conclusions** No difference was found in TC, HDL-c, LDL-c and blood glucose in PWH continuing an FTC/TAF regimen vs those switching to 2DR. Switching from PI-based regimen was independently associated with a significant reduction of LDL.

Abstract OC-15 Table 1 Weight and blood lipids at T0 and T1 (change from baseline)

All PWH	T0			T1		
	mean $\pm$ SD or median (IQR)			mean $\pm$ SE		
	2DR n=129	FTC/TAF n=358	P	2DR n=129	FTC/TAF n=358	P
Weight (Kg)	75.0 $\pm$ 13.8	75.2 $\pm$ 13.9	0.92	-0.1 $\pm$ 0.3	0.3 $\pm$ 0.3	0.58
BMI (Kg/m <sup>2</sup> )	25.1 $\pm$ 4.0	25.7 $\pm$ 4.3	0.25	0.04 $\pm$ 0.09	0.08 $\pm$ 0.10	0.79
TC (mg/dL)	196 $\pm$ 38	195 $\pm$ 42	0.80	-4.7 $\pm$ 2.9	-6.0 $\pm$ 1.9	0.71
LDL-c (mg/dL)	118 $\pm$ 33	116 $\pm$ 36	0.48	-3.5 $\pm$ 2.5	-3.7 $\pm$ 2.7	0.95
TGL (mg/dL)	107 (81-157)	119 (85-160)	0.26	-7.6 $\pm$ 5.0	-10.7 $\pm$ 4.1	0.64
<b>No COBI in previous regimen</b>	<b>2DR n=82</b>	<b>FTC/TAF n=137</b>	<b>P</b>	<b>2DR n=82</b>	<b>FTC/TAF n=137</b>	<b>P</b>
Weight (Kg)	75.9 $\pm$ 13.9	74.5 $\pm$ 13.1	0.44	0.23 $\pm$ 0.33	0.53 $\pm$ 0.42	0.57
BMI (Kg/m <sup>2</sup> )	25.2 $\pm$ 3.9	25.8 $\pm$ 4.0	0.35	0.09 $\pm$ 0.11	0.15 $\pm$ 0.15	0.77
TC (mg/dL)	189 $\pm$ 36	188 $\pm$ 43	0.79	2.0 $\pm$ 3.2	-0.8 $\pm$ 3.5	0.58
LDL-c (mg/dL)	114 $\pm$ 32	109 $\pm$ 38	0.31	1.2 $\pm$ 3.1	1.7 $\pm$ 3.1	0.74
TGL (mg/dL)	107 (81-141)	113 (81-161)	0.34	0.1 $\pm$ 6.1	-5.3 $\pm$ 6.5	0.55
<b>With COBI in previous regimen</b>	<b>2DR n=47</b>	<b>FTC/TAF n=221</b>	<b>P</b>	<b>2DR n=47</b>	<b>FTC/TAF n=221</b>	<b>P</b>
Weight (Kg)	73.4 $\pm$ 13.7	75.6 $\pm$ 14.5	0.36	-0.06 $\pm$ 0.48	0.23 $\pm$ 0.37	0.64
BMI (Kg/m <sup>2</sup> )	25.0 $\pm$ 4.2	25.6 $\pm$ 4.5	0.42	-0.04 $\pm$ 0.17	0.04 $\pm$ 0.14	0.72
TC (mg/dL)	208 $\pm$ 38	200 $\pm$ 40	0.18	-16.0 $\pm$ 5.2	-9.3 $\pm$ 2.1	0.18
LDL-c (mg/dL)	126 $\pm$ 32	120 $\pm$ 35	0.29	-11.2 $\pm$ 4.1	-7.6 $\pm$ 1.9	0.42
TGL (mg/dL)	122 (81-204)	123 (89-157)	0.98	-20.3 $\pm$ 8.3	-14.1 $\pm$ 5.2	0.58

Legend to the table: SD: standard deviation; IQR: interquartile range; SE: standard error; BMI: Body Mass Index; TC: Total Cholesterol; LDL-c: Low density Lipoprotein Cholesterol; TGL: Triglycerides.