The effectiveness of E/C/F/TAF in treatment-naive (TN) or treatment-experienced (TE) adult HIV-infected patients in a real-world setting, results from southern Turkey

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Background

In Turkey, elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide (E/C/F/TAF) is a recommended regimen for first-line treatment of HIV infection and for some TE patients, but limited data are available from real-world experience. This retrospective cohort study was done in southern Turkey to evaluate the effectiveness of E/C/F/TAF when used in TN or TE adult HIV-infected patients in a real world setting.

Material and Methods

All patients who received E/C/F/TAF for at least 6 months were included in this multicenter, retrospective study. Patient characteristics, reasons for selection of E/C/F/TAF, virological efficacy and reasons for discontinuations/modifications were evaluated.

Results

A total of 562 patients were included in the analysis population; 167 patients were TN, 395 patients were TE. In the TN group 24 (14,5%) patients were late presenters (Table 1). Patients were switched to E/C/F/TAF; 73,7% of them had previously used INSTI (Table 1). Overall 2,1% (12/562) of patients discontinued/modified study medication before M12 visit. Reasons are shown in Table 1.

At M6 visit 89,2% (n=501/562) had HIV RNA levels <50 cp/mL. At M12; 105 TN patients had treatment results, follow-up of 58 patients was not completed yet, 4 patients were lost to follow-up. 90,5% of patients (95/105) achieved HIV RNA <50 cp/mL at 12 months. In the TE group, virological suppression was 95.8% in 263 patients with M12 data (see Figure 1).

The most common reason for switch to E/C/F/TAF was to minimize long-term toxicity (n=207, 52,4%) (Table 2).

In TN patients at M12 there was no difference in viral suppression after stratification by baseline variables (p:0,3). (Figure 2)

Table 1. Baseline characteristics

Participant Characteristics	Overall Median (IQR) or Proportion (N=562)	Treatment Naive (TN) Median (IQR) or Proportion (N=167)	Treatment Experienced (TE) Median (IQR) or Proportion (N=395)	p
Age, y, median (IQR)	34,0 (28,0-44,0)	31,0 (26,0-41,0)	36,0 (28,0-46,0)	0,000
Age, y≥50, n(%)	89 (15,8)	18 (10,8)	71 (18,0)	0,042
Male Sex, n(%)	481 (85,6)	153 (91,6)	328 (83,0)	0,000
CD4 cells/µL, median (IQR)	566,0 (361,0-806,0)	378,0 (268,0-540,0)	683,0 (468,75-926,50)	0,000
CD4<200 cells/µL, n(%)	39 (7,1)	24 (14,5)	15 (3,8)	0,000
HIVRNA log_{10}, median (IQR)	4,6 (2,8-5,2)	4,9 (4,5-5,6)	2,1 (1,7-3,1)	0,000
HIVRNA				
<50 copies/mL	330 (60,7)	-	330 (86,6)	0,000
50-<200 copies/mL	22 (4,0)	-	22 (5,8)	
200-100 000 copies/mL	114 (21,0)	88 (52,7)	26 (6,8)	
>100 000 copies/mL	78 (14,3)	75 (44,9)	3 (0,8)	
Previous Antiretroviral Treatment				
INSTI	NA	NA	291 (73,7)	
NNRTI	NA	NA	72 (18,2)	
PI	NA	NA	31 (7,8)	
Other	NA	NA	1 (0,3)	
Reasons for modification /discontinuation, n(%)	12 (2,1)	4 (2,4)	8 (1,4)	
Patient's wish	1 (8,3)	-	1 (12,5)	
Clinician's preference	1 (8,3)	-	1 (12,5)	
Obstetric	1 (8,3)	-	1 (12,5)	
Virological failure	4 (33,3)	4 (100,0)	-	
Other	5 (41,7)	-	5 (62,5)	

Conclusion

In TN and TE patients, 6 and 12 month data from this real world cohort confirmed the effectiveness E/C/F/TAF in routine practice. This virological effectiveness was unaffected by baseline HIV RNA and CD4 levels.

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Table 2. Reasons for switch to E/C/F/TAF, n (%)

easons for drug modification and/or discontinuation	n (%)
Treatment simplification	77 (19,5)
Patient preference	10 (2,5)
Intolerance/toxicity	31 (7,8)
Gastrointestinal intolerance	1 (3,2)
Hyperlipidemia	2 (6,5)
Osteopenia	7 (22,6)
Osteoporosis	3 (9,7)
Central Nervous System	4 (12,9)
Nephrotoxicity	14 (45,1)
Minimize long-term toxicity	207 (52,4)
Other	70 (17,7)

Figure 1. Virologic effectiveness in patients with E/C/F/TAF

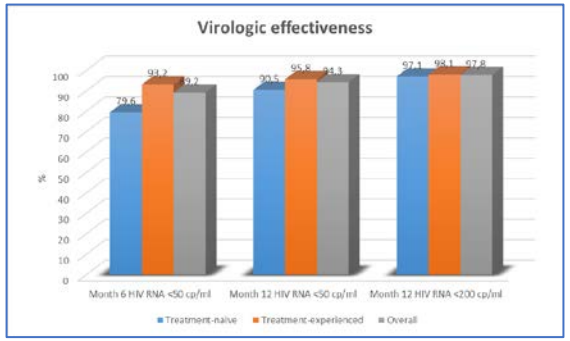

Figure 2. Month 12 HIV RNA <50 cp/ml stratified by baseline variables, only TN patients