Dettaglio abstract

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Title: Reasons for choosing a TAF-based 3DR instead of a DTG-based 2DR as ART switch strategy for virologically suppressed PLWH in Italy

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Authors: A. Vergori[1], A. Cozzi-Lepri[2], A. Tavelli[3], S. Lo Caputo[4], E. Quiros-Roldan[5], G. De Girolamo[6], F. Bai[7], C. Mussini[8], A. Di Biagio[9], L. Sarmati[10], A. Antinori[1], A. d'Arminio Monforte[7] for Icona Foundation Study Group

Affiliation: [1]HIV/AIDS Clinical Department, "Lazzaro Spallanzani"-IRCCS, National Institute for Infectious Diseases, Rome, Italy, [2]Centre for Clinical Research, Epidemiology, Modelling and Evaluation (CREME) Institute for Global Health UCL, London, UK, [3]Icona Foundation, Milan, Italy, [4]Clinic of Infectious Diseases, Department of Clinical and Experimental Medicine, University of Foggia, Foggia, Italy, [5]Department of Infectious and Tropical Diseases, University of Brescia and ASST Spedali Civili Hospital, Brescia, Italy, [6]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome, Italy, [7]Department of Health Sciences, Clinic of Infectious Diseases, ASST Santi Paolo E Carlo, University of Milan, Milan, Italy, [8]Department of Infectious Diseases, University of Modena and Reggio Emilia, Modena, Italy, [9]Infectious Diseases Unit, San Martino Policlinico Hospital – IRCCS, Department of Health Sciences (DISSAL), University of Genoa, Genoa, Italy, [10]Infectious Diseases, University Hospital of Rome Tor Vergata, University of Rome Tor Vergata, Rome, Italy

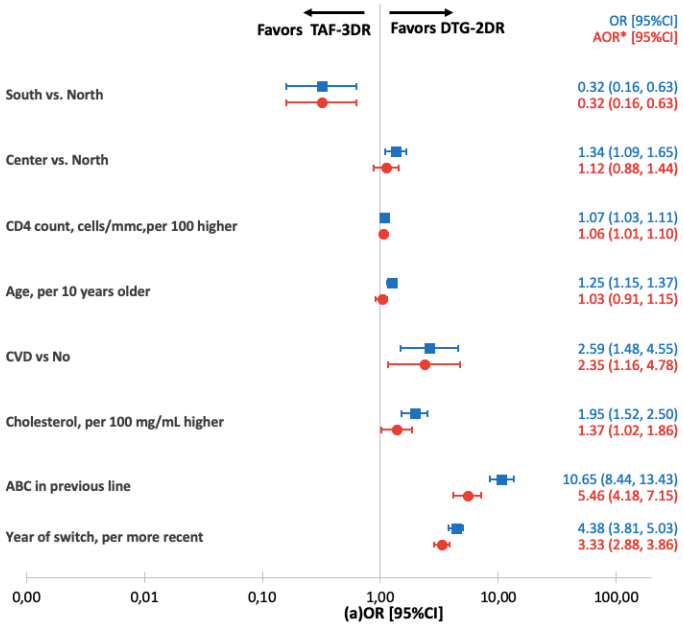
Abstract
Background: Tenofovir alafenamide-based triple regimens (TAF-3DR) and dolutegravir -based dual regimen (DTG-2DR) are two recommended strategies for treatment of person living with HIV (PLWH) with HIV-RNA≤50 copies/mL. Multiple studies have shown high efficacy and tolerability of both combinations. Aim of this analysis was to compare patients' profiles associated with a switch to a TAF-3DR versus a DTG-2DR in a cohort of PLWH with current HIV-RNA≤50 copies/mL.
Methods: We included PLWH from the ICONA Foundation Study cohort who achieved a HIV-RNA≤50 copies/mL (VS) on ART after Jan/2017 and in whom the regimen was subsequently changed to TAF-3DR or DTG-2DR (DTG plus lamivudine [3TC] or DTG plus rilpivirine [RPV]). A cross sectional analysis was performed to compare participants' characteristics at the time of switch. Logistic regression models were used to show the odds ratios (OR) of switching to DTG-2DR vs. TAF-3DR.
Results: 4,291 PLWH were included: n=3,882 (90%) who switched to a TAF-3DR [mostly to RPV/F/TAF (39%) and EVG/c/F/TAF (29%)] and n=409 (10%) to the DTG-2DR group (86% to 3TC+DTG and 14% to DTG+RPV). Selected participants' characteristics are shown in Table 1. Overall, 81% were male with a median age of 46 years (IQR, 37-53) and a median CD4 count of 693/mmc (512-901), 41% had achieved VS on their first-line treatment. TDF- and ABC-based ART before switch were 25% and 46% in DTG-2DR group vs. 90% and 7% in TAF-3DR group, respectively. From fitting a logistic regression model, PLWH who used ABC in the previous regimen [aOR 5.46 vs. TDF (95%CI 4.18, 7.15); p

Table 1. Baseline patients' characteristics at time of switching ART after viral suppression according to treatment group

Characteristics	ART regimen			
	DTG-2DR	TAF-triple	P-value*	Total
	N= 409	N= 3882		N= 4291
Gender, n(%)			0.878	
Female	77 (18.8)	743 (19.1)		820 (19.1)
Age, years			<.001	
Median (IQR)	49 (38, 57)	45 (37, 53)		46 (37, 53)
Nationality, n(%)			0.031	
Not Italian	51 (12.5)	644 (16.6)		695 (16.2)
CD4 count, cells/mmc			<.001	
Median (IQR)	736 (579, 953)	689 (504, 896)		693 (512, 901)
CD8 count, cells/mmc			0.581	
Median (IQR)	798 (593, 1116)	797 (593, 1070)		797 (593, 1073)
ABC in previous line, n(%)			<.001	
Yes	178 (44)	262 (7)		440 (10)
Calendar year of baseline			<.001	
Median (IQR)	2019 (2018, 2019)	2017 (2017, 2018)		2017 (2017, 2018)
2017	76 (18.6)	2100 (54.1)		2176 (50.7)
2018	102 (24.9)	1478 (38.1)		1580 (36.8)
2019-2020	231 (56.5)	304 (7.8)		535 (12.5)
Site geographical position, n(%)			<.001	
North	222 (54.3)	2250 (58.0)		2472 (57.6)
Center	178 (43.5)	1348 (34.7)		1526 (35.6)
South	9 (2.2)	284 (7.3)		293 (6.8)
CVD diagnosis, n(%)			<.001	
Yes	16 (3.9)	60 (1.5)		76 (1.8)
Total cholesterol, mg/dL			<.001	
Median (IQR)	188 (163, 218)	178 (153, 204)		179 (154, 205)
Use of statins, n(%)			<.001	
Yes	68 (16.6)	416 (10.7)		484 (11.3)

*Chi-square or Kruskal-Wallis test as appropriate; Abbreviations: ABC, abacavir; CVD, cardiovascular disease.

Figure 1. Unadjusted and adjusted odds ratio of factors associated with switching to a DTG-based 2DR or to a TAF-based 3DR from fitting a logistic regression



Ajusted for: geographical sites, CD4 count, Age, CVD, Cholesterol levels, ABC as previous line, Calendar year of switch, Nationality, use of statin, ART line at switch, employment, Time from HIV diagnosis to ART initiation