

Efficacy and Safety of Switching to Dolutegravir/Lamivudine (DTG/3TC) in Treatment-Experienced, Virologically Suppressed PLHIV Aged ≥50 Years: Pooled Results From the TANGO and SALSA Studies

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Key Takeaways

- Efficacy and safety of DTG/3TC in participants aged ≥50 years were evaluated using pooled data from the TANGO and SALSA studies at Week 48
- Despite a higher number of concomitant medications, a greater prevalence of comorbidities, and a longer duration of prior ART in participants aged ≥50 years, DTG/3TC maintained high rates of virologic suppression after treatment switch with no reported resistance, similar changes in CD4+ cell count and CD4+/CD8+ ratio, and favorable lipid profiles vs continuing CAR
- DTG/3TC is a robust switch option for older adults living with HIV with fewer antiretroviral drugs

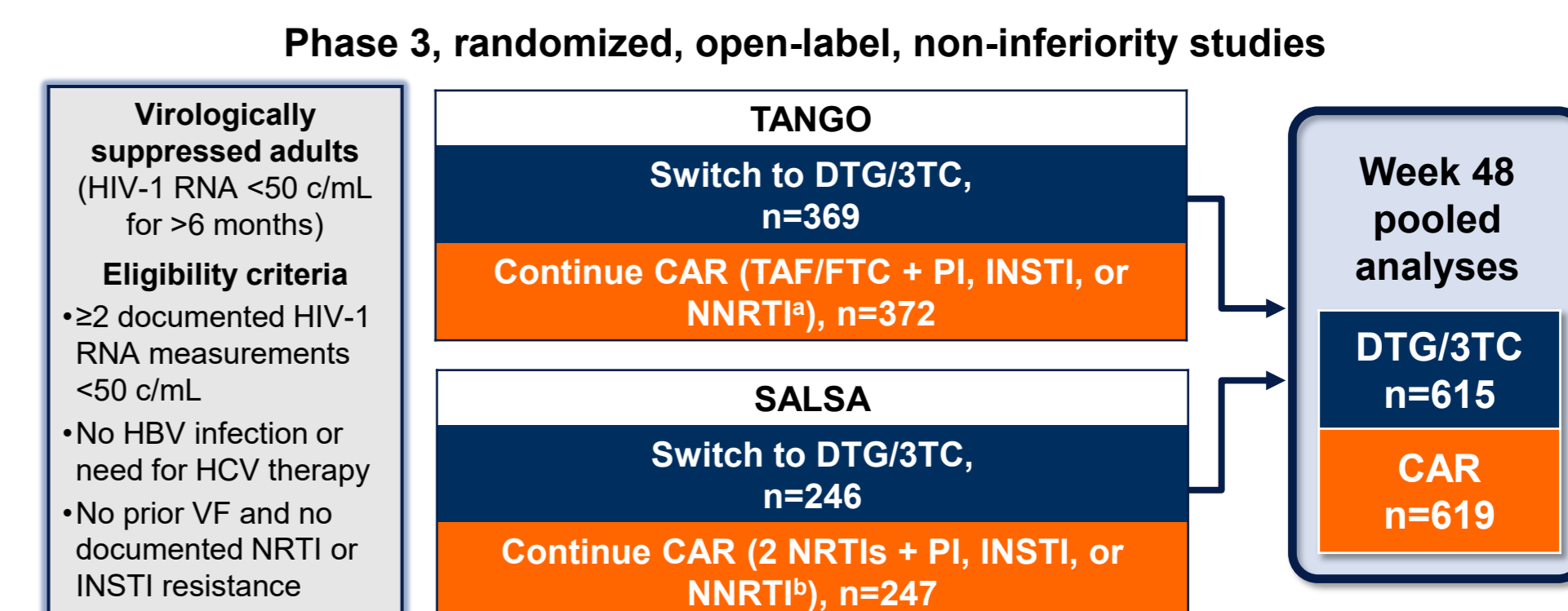
Introduction

- As older adults are among the fastest growing populations living with HIV, it is important to evaluate efficacy and safety of ART in this demographic,¹ which has historically been underrepresented in HIV studies^{2,3}
- Addressing treatment needs for an older population includes managing age-related comorbidities and polypharmacy while maintaining virologic suppression⁴
- DTG/3TC is an international guidelines-recommended 2-drug regimen demonstrating high efficacy and barrier to resistance, supported by results from phase 3 trials, which showed high rates of virologic suppression and good safety and tolerability after switching to DTG/3TC vs continuing current ART regimens⁵⁻⁷
- Here, we evaluate the efficacy and safety of DTG/3TC in a larger sample of participants aged ≥50 years in a pooled analysis of TANGO and SALSA

Methods

- This pooled analysis includes 48-week data from the phase 3 TANGO and SALSA clinical trials in adults (Figure 1).^{8,7}
- Primary and key secondary endpoints were proportions of participants with HIV-1 RNA ≥50 c/mL and <50 c/mL, respectively, at Week 48 (Snapshot, ITT-E population) using a Cochran-Mantel-Haenszel analysis adjusting for baseline third agent class
- Mixed-models repeated-measures analysis was used for adjusted mean change from baseline in CD4+ cell count, CD4+/CD8+ ratio, weight, renal biomarkers, and lipids
- Adjustment terms were treatment, visit, age, sex, race, baseline value, baseline third agent class, treatment-by-visit interaction, baseline value-by-visit interaction, and study, with visit as the repeated factor; subgroup analyses by age were also adjusted for visit-by-age, treatment-by-age, and treatment-by-visit-by-age interactions
- Additional adjustment terms are shown below tables and figures as applicable

Figure 1. Study Design



CAR, current antiretroviral regimen. Randomization (1:1) in both studies was stratified by baseline third agent class (PI, INSTI, or NNRTI). ^aParticipants with initial TDF treatment who switched to TAF ≥3 months before screening, with no changes to other drugs in their regimen, were also eligible. ^bParticipants were on uninterrupted ART regimen for ≥3 months.

Results

Participants

- Of 1234 participants, 29% (n=364) were aged ≥50 years (including 9% [n=111] female and 3% [n=43] aged ≥65 years; Table 1)
- Baseline characteristics indicate similar characteristics between the DTG/3TC and current antiretroviral regimen (CAR) groups except for greater concomitant medication use, more comorbidities, and longer prior ART duration among participants aged ≥50 vs <50 years

Table 1. Baseline Demographics and Characteristics by Age: TANGO and SALSA Pooled ITT-E Population

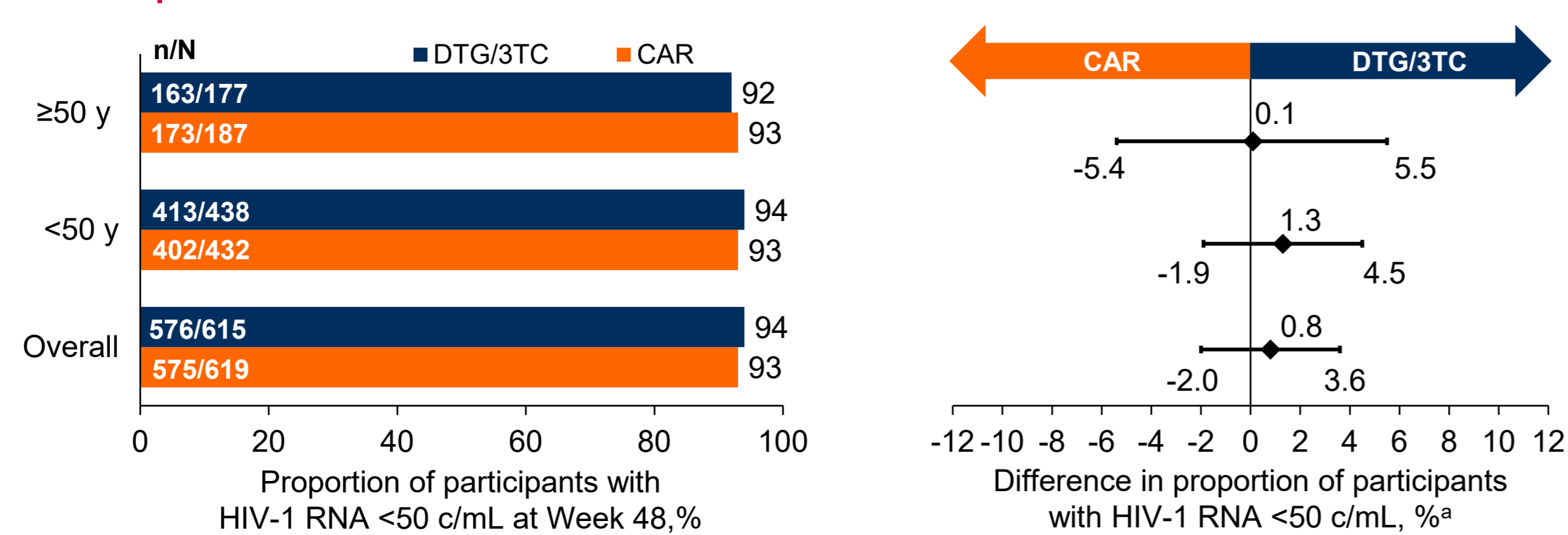
Parameter	Age ≥50 y		Age <50 y	
	DTG/3TC (N=177)	CAR (N=187)	DTG/3TC (N=438)	CAR (N=432)
Age, median (range), y	56 (50-74)	55 (50-83)	37 (20-49)	36 (18-49)
CD4+ cell count, median (range), cells/mm ³	649 (133-2089)	671 (119-1530)	685 (154-1904)	686 (94-1954)
CD4+/CD8 ratio, mean (SD)	1.1 (0.6)	1.1 (0.6)	1.0 (0.5)	1.0 (0.4)
Duration of ART before Day 1, median (range), mo	60.6 (7-240)	58.0 (9-253)	37.1 (4-188)	41.0 (7-206)
Baseline NRTI, n/N (%) ^a				
TDF	39/174 (22)	37/184 (20)	70/431 (16)	73/422 (17)
TAF	111/174 (64)	129/184 (70)	340/431 (79)	333/422 (79)
ABC	24/174 (14)	18/184 (10)	21/431 (5)	16/422 (4)
Baseline third agent, n (%)				
INSTI	92 (52)	109 (58)	295 (67)	285 (66)
NNRTI	65 (37)	62 (33)	109 (25)	110 (25)
PI	20 (11)	16 (9)	34 (8)	37 (9)
Baseline use of ≥1 non-ART medications, n (%)	137 (77)	161 (86)	264 (60)	264 (61)
Baseline comorbidities, n (%)	146 (82)	167 (89)	311 (71)	307 (71)
Weight, median (range), kg	75.0 (44-128)	79.0 (36-127)	77.5 (43-154)	77.0 (48-160) ^b
BMI, median (range), kg/m ²	25.4 (18-43)	26.9 (14-45)	25.1 (17-51)	25.2 (17-69) ^b

^aOther NRTI backbone regimens were included in SALSA (zidovudine, tenofovir disoproxil succinate, biogvir [NOS]). ^bN=431.

Virologic and Immunologic Outcomes

- Proportions of participants with HIV-1 RNA ≥50 c/mL in the DTG/3TC vs CAR group were similar in participants aged ≥50 and <50 years and in the overall analysis (DTG/3TC vs CAR, respectively: ≥50 years, 0.6% vs 1.6%; <50 years, 0.2% vs 0.5%; overall, 0.3% vs 0.8%)
- Proportions of participants with HIV-1 RNA <50 c/mL were high and comparable across treatment and age groups (Figure 2)

Figure 2. Proportions of Participants With HIV-1 RNA <50 c/mL by Age and Overall: TANGO and SALSA Pooled ITT-E Population



^aAdjusted difference (95% CI) for each population (DTG/3TC - CAR).

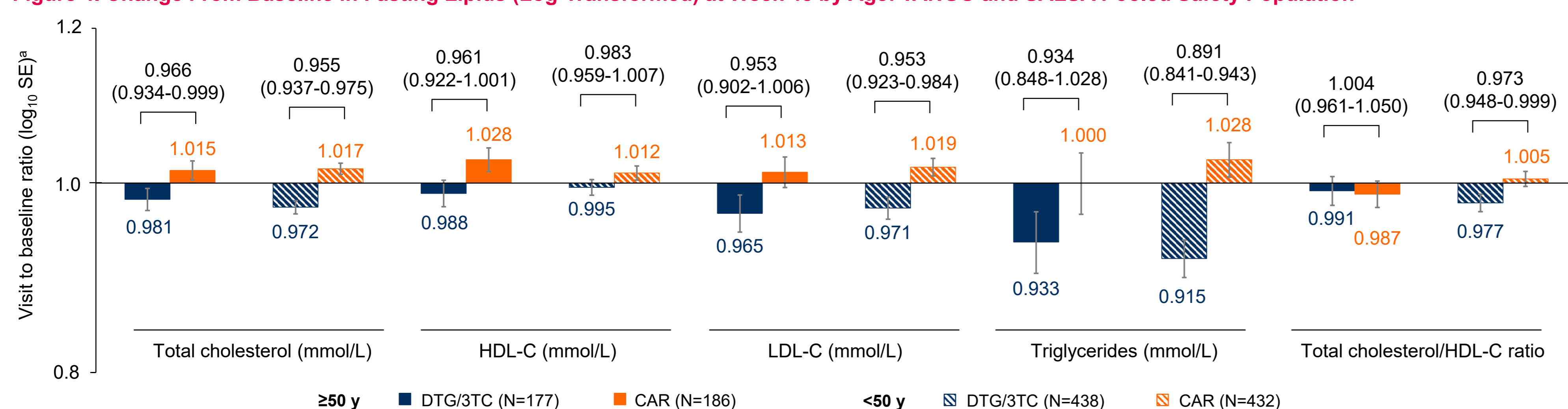
- No participants in the DTG/3TC group had confirmed virologic withdrawal (CVW); 1 CAR participant had CVW (aged <50 years), and no resistance was detected
- Similar changes from baseline were observed in CD4+ cell count and CD4+/CD8+ ratio in the DTG/3TC vs CAR group in each age group (Table 2)

Table 2. Adjusted Mean Change From Baseline to Week 48 in CD4+ Cell Count and CD4+/CD8+ Ratio: TANGO and SALSA Pooled ITT-E Population^a

Parameter	Age ≥50 y		Age <50 y	
	DTG/3TC (N=177)	CAR (N=187)	DTG/3TC (N=438)	CAR (N=432)
CD4+ cell count, adjusted mean change (SE), cells/mm ³	6.3 (13.6)	-24.7 (12.5)	29.0 (8.5)	7.6 (8.2)
Adjusted difference (95% CI), cells/mm ³	30.9 (-5.2, 67.1)			
CD4+/CD8 ratio, adjusted mean change (SE)	0.032 (0.016)	0.062 (0.016)	0.039 (0.010)	0.048 (0.010)

^aFor CD4+ cell count, baseline BMI was an additional adjustment term. For CD4+/CD8+ ratio, baseline CD4+ cell count and baseline BMI were additional adjustment terms.

Figure 4. Change From Baseline in Fasting Lipids (Log-Transformed) at Week 48 by Age: TANGO and SALSA Pooled Safety Population



Treatment ratio (95% CI) shown above bars. ^aFor lipids, baseline CD4+ cell count was an additional adjustment term.

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