Switching to Dolutegravir/Lamivudine (DTG/3TC) Is Non-inferior to Continuing Tenofovir Alafenamide (TAF)-Based Regimens at Week 196: TANGO Subgroup Analyses

EPB0218

Don E. Smith,[1] Jean-Pierre Routy,[2] Stefan Scholten,[3] Julián Olalla Sierra,[4] Mounir Ait-Khaled,[5] Ruolan Wang,[6] Parminder Saggu,[7] Riya Moodley,[5] Bryn Jones[5]

[1]Albion Centre, Sydney, Australia; [2]McGill University Health Centre, Montreal, QC, Canada; [3]Praxis Hohenstaufenring, Cologne, Germany; [4]Hospital Costa del Sol, Marbella, Spain; [5]ViiV Healthcare, Brentford, UK; [6]ViiV Healthcare, Durham, NC, USA; [7]GSK, Brentford, UK

Key Takeaways

- **Switching from 3- or 4-drug tenofovir alafenamide (TAF)-based regimens to the 2-drug regimen dolutegravir/lamivudine (DTG/3TC) for the maintenance of virologic suppression is effective, durable, and well tolerated through 196 weeks regardless of participant or disease characteristics, or baseline regimen**
- **Efficacy and safety were comparable between the early-switch (ES) and late-switch (LS) subgroups at 48 weeks post-switch to DTG/3TC (Weeks 48 and 196, respectively), and consistent across subgroups**

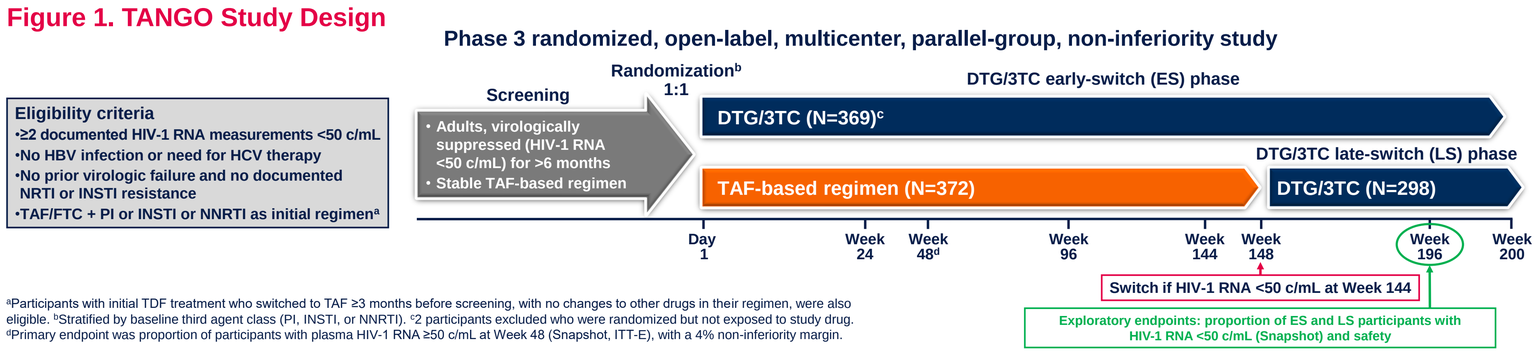
Introduction

- Switching to DTG/3TC from 3- or 4-drug TAF-based regimens showed durable high efficacy and good tolerability in virologically suppressed people living with HIV-1 in the phase 3 TANGO study through Week 196[1]
- DTG/3TC demonstrated generally comparable efficacy and similar rates of adverse events (AEs) across subgroups based on demographic and baseline characteristics in TANGO analyses through Weeks 48, 96, and 144[2-4]
  - Efficacy and safety across subgroups were also consistent with findings from the overall population receiving DTG/3TC[2-4]
- Here, we report efficacy and safety results by subgroup based on demographics, baseline disease characteristics, and baseline third agent class in TANGO participants who switched from TAF-based regimens to DTG/3TC on Day 1 and those who switched at Week 148

Methods

- TANGO is an open-label, multicenter, randomized, phase 3 study assessing efficacy and safety of switching to DTG/3TC vs continuing TAF-based regimens (Figure 1)
  - Adults with HIV-1 RNA <50 c/mL on TAF-based regimens for >6 months without prior virologic failure or documented NRTI or INSTI resistance were eligible
- Participants were stratified by baseline third agent class and randomized 1:1 to switch to DTG/3TC on Day 1 (early-switch [ES] group) or continue TAF-based regimens for 144 weeks
- Participants who continued TAF-based regimens and maintained virologic suppression at Week 144 switched to DTG/3TC at Week 148 (late-switch [LS] group)
- Efficacy through Week 196 was analyzed using Snapshot algorithm (ITT-E population)
  - Post–Week 144, the study entered a non-comparative phase assessing a 4-year follow-up for the ES group and a 1-year follow-up for the LS group

Figure 1. TANGO Study Design



[a]Participants with initial TDF treatment who switched to TAF ≥3 months before screening, with no changes to other drugs in their regimen, were also eligible. [b]Stratified by baseline third agent class (PI, INSTI, or NNRTI). [c]2 participants excluded who were randomized but not exposed to study drug. [d]Primary endpoint was proportion of participants with plasma HIV-1 RNA ≥50 c/mL at Week 48 (Snapshot, ITT-E), with a 4% non-inferiority margin.

Results

Participants

- At Week 196, TANGO included 369 ES group and 298 LS group participants treated with DTG/3TC for 196 and 48 weeks, respectively
- Demographics and baseline characteristics were generally balanced between the ES group and LS group (Table 1)
  - At the time of starting DTG/3TC, 21% of participants were aged ≥50 years in the ES group compared with 34% in the LS group (3 years after ES start)
  - LS group participants had higher CD4+ cell count at DTG/3TC start compared with the ES group

Table 1. Participant Demographics and Baseline Characteristics (ITT-E Population)

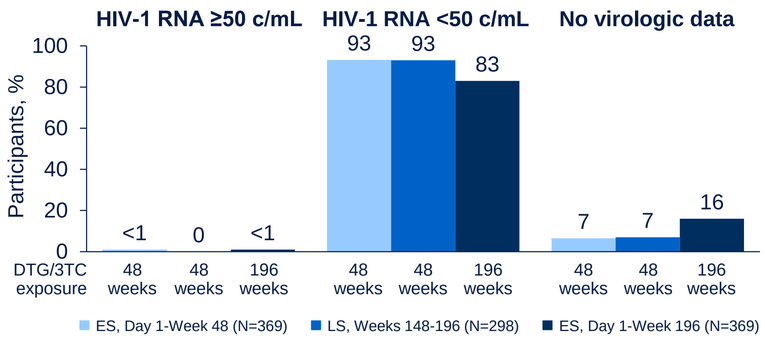
Characteristic	Early-switch DTG/3TC (N=369) Baseline (Day 1)	Late-switch DTG/3TC (N=298) Baseline (Week 148)[a]
Age, median (range), years	40 (20-74)	43 (20-76)
≥50, n (%)	79 (21)	100 (34)
Sex, female, n (%)	25 (7)	21 (7)
Race, n (%)		
White	297 (80)	235 (79)
Black or African American	50 (14)	41 (14)
Asian	13 (4)	12 (4)
Other races[b]	9 (2)	10 (3)
CD4+ cell count, mean (SD), cells/mm^3	702 (289)	751 (292)
CD4+ cell count, n (%), cells/mm^3		
<350	35 (9)	19 (6)
≥350	334 (91)	279 (94)
CDC HIV-1 classification		
Stage 1	255 (69)	202 (68)
Stage 2	94 (25)	79 (27)
Stage 3	20 (5)	17 (6)
Baseline third agent class, n (%)		
INSTI	289 (78)	242 (81)
EVG/c	243 (66)	202 (68)
NNRTI	51 (14)	33 (11)
RPV	43 (12)	30 (10)
PI	29 (8)	23 (8)
bDRV	25 (7)	22 (7)
Duration of ART before Day 1, median (range), mo	33.8 (7.1-201.2)	34.0 (7.0-160.8)
Duration of TAF before Day 1, median (range), mo	17.7 (3.6-73.7)	18.3 (3.9-71.2)

[a]Age was calculated at late-switch baseline (Week 148); all other characteristics were collected only at screening. [b]Includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and individuals of multiple races.

Virologic Outcomes

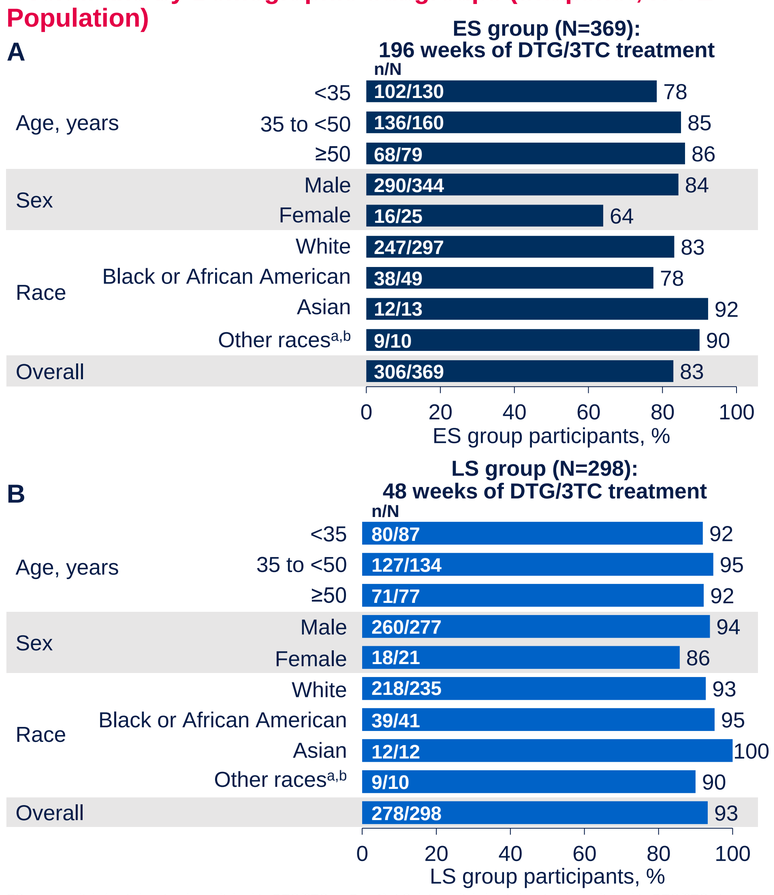
- Few ES participants (3/369 [<1%]; 95% CI, 0.0%-1.7%) and 0/298 (95% CI, 0.0%-0.0%) LS participants had HIV-1 RNA ≥50 c/mL in the overall population at Week 196 by Snapshot analysis (ITT-E; Figure 2)

Figure 2. Overall Efficacy Results at Week 196 (Snapshot, ITT-E Population)



- Confirmed virologic withdrawal criteria were met by 1/369 (<1%) ES participant and no LS participants through Week 196, with no resistance observed
- Overall ES group and LS group Snapshot virologic response rates at Week 196 were generally consistent with rates across their respective subgroups related to demographic characteristics (Figure 3)

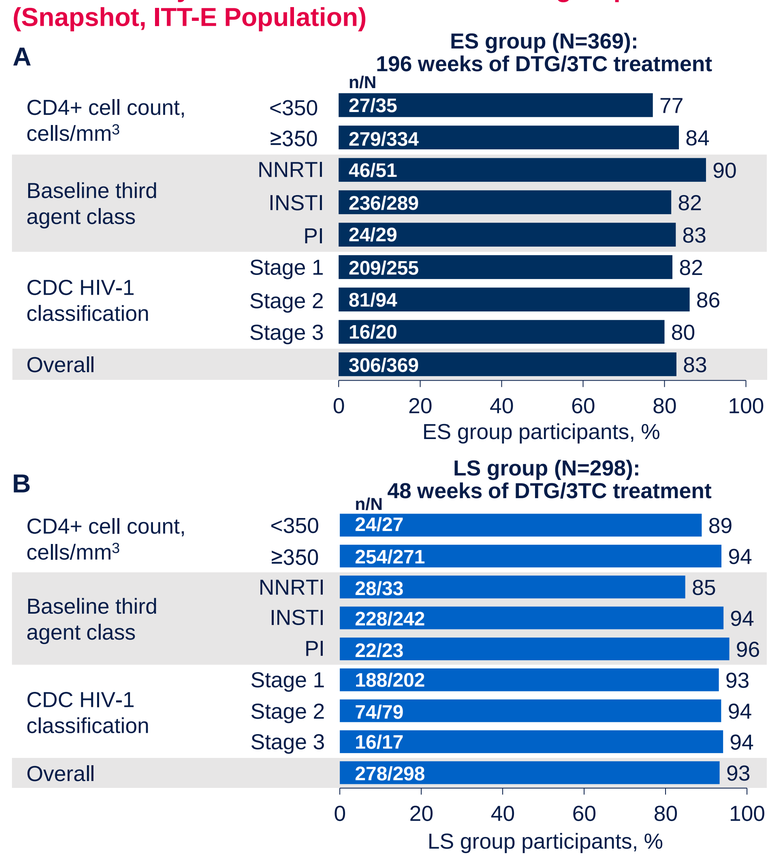
Figure 3. Proportion of Participants in the (A) ES and (B) LS DTG/3TC Groups With HIV-1 RNA <50 c/mL at Week 196 Overall and by Demographic Subgroups (Snapshot, ITT-E Population)



ES, early-switch (participants who switched to DTG/3TC on Day 1); LS, late-switch (participants who switched to DTG/3TC at Week 148). [a]Includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and individuals of multiple races. [b]After Week 144, an ES group participant initially categorized as Black or African American was reclassified as Other race by the investigational site.

- Overall ES group and LS group Snapshot virologic response rates at Week 196 were consistent with rates across their respective subgroups related to baseline disease characteristics and baseline third agent class at Week 196 (Figure 4)

Figure 4. Proportion of Participants in the (A) ES and (B) LS DTG/3TC Groups With HIV-1 RNA <50 c/mL at Week 196 Overall and by Baseline Characteristics Subgroups (Snapshot, ITT-E Population)



ES, early-switch (participants who switched to DTG/3TC on Day 1); LS, late-switch (participants who switched to DTG/3TC at Week 148).

Safety Outcomes

- Safety was consistent across subgroups within the ES and LS groups, with few new AEs reported between Years 3 and 4 in the ES group (Figure 5)
- Safety profiles were comparable between the ES and LS subgroups at 48 weeks post-switch (Weeks 48 and 196, respectively)

Figure 5. Proportion of Participants in the ES and LS DTG/3TC Groups Reporting Any AE Through Week 196 Overall and by Subgroup (Safety Population)

ES, early-switch (participants who switched to DTG/3TC on Day 1); LS, late-switch (participants who switched to DTG/3TC at Week 148). [a]Includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and individuals of multiple races. [b]After Week 144, an ES group participant initially categorized as Black or African American was reclassified as Other race by the investigational site.

Conclusions

- Virologic efficacy and safety results by demographic, baseline disease characteristics, and baseline third agent class subgroups were consistent with overall results at Week 196
  - At 48 weeks post-switch to DTG/3TC, virologic response rates were similar between subgroups of participants who switched on Day 1 and corresponding subgroups of participants who switched at Week 148,[2] demonstrating the reproducibility of DTG/3TC efficacy after switch from 3- or 4-drug TAF-based regimens
- These results support that switching to DTG/3TC from TAF-based regimens effectively maintains virologic suppression across different demographic and baseline characteristics subgroups at 48 and 196 weeks

Acknowledgments: This study was funded by ViiV Healthcare. We thank the study participants and their families and caregivers; the investigators and site staff who participated in the study; and the ViiV Healthcare, GSK, Pharmaceutical Product Development, and Phastar study team members. Editorial assistance and graphic design support for this poster were provided under the direction of the authors by MedThink SciCom and funded by ViiV Healthcare.

References: 1. De Wit et al. HIV Drug Therapy Glasgow 2022; Virtual and Glasgow, Scotland. Slides MO41. **2.** Ait-Khaled et al. EACS 2019; Basel, Switzerland. Slides PS7/2. **3.** Benson et al. CROI 2021; Virtual. Science spotlight 2000. **4.** Scholten et al. EACS 2021; Virtual and London, UK. Poster PE2/71.

Presenting author: Don E. Smith; don.smith@health.nsw.gov.au

This content was acquired following an unsolicited medical information enquiry by a healthcare professional. Always consult the product information for your country, before prescribing a ViiV medicine. ViiV does not recommend the use of our medicines outside the terms of their licence. In some cases, the scientific Information requested and downloaded may relate to the use of our medicine(s) outside of their license.