CARAVEL: evaluation of real-world antiviral effectiveness and sustainability of the 2-drug regimen Dolutegravir/Lamivudine FDC in treatment-naïve adults and pre-treated adults who are virologicaly suppressed, in routine clinical care, in France. One-year interim analysis results.

P. Philibert[1], C. Charpentier[2], N. Naguleswaran[3], C. Philippe[3], L. Roustand[4], C. Vouillot[5], L. Hocqueloux[6]

[1]Hôpital Européen, Marseille, France, [2]Hôpital Bichat-Claude Bernard, Paris, France, [3]QUALEES, Paris, France, [4]GSK, Rueil-Malmaison, France, [5]ViiV Healthcare, Rueil-Malmaison, France, [6]CHU, Orléans, France

Introduction

- 2-Drug Regimens have been assessed to address problems of drug-drug interactions, resistance and tolerance issues of existing ARV.
- DTG/3TC Fixed Dose Combination (FDC) is a complete therapeutic regimen with just 2 active substances.
- This study is conducted to supplement data gathered from clinical trials [1-3] with real-world evidence.

Objectives

- To describe virological outcome of DTG/3TC for the initial suppression of HIV replication in treatment-naïve people with HIV (TN-PWH), as well as maintaining viral suppression in pre-treated PWH who are virologically suppressed (PT-PWH).
- To describe safety in clinical practice.

Methods

- CARAVEL is a French, prospective, non-interventional, single-arm, multi-center cohort study with a 3-year follow-up.
- Patient were stratified in two groups: TN-PWH or PT-PWH.
- To be included, adult PWH should have started DTG/3TC for the first time and according to Summary of Product Characteristics
- Here we present the 1-year interim analysis results.
- Patient with no post-baseline virological load measure were excluded from efficacy set.

Results

Patients

- 49 centers included 304 patients: 56 TN-PWH and 248 PT-PWH.
- Baseline characteristics are presented in Table 1.
- Main reason for switching to DTG/3TC for PT-PWH is treatment simplification (N=140, 56.4%), and main reason for prescription of DTG/3TC for TN-PWH is following EACS Guidelines (N=45, 80.3%).

Effectiveness

- 46 TN-PWH (82.1%) and 225 PT-PWH (90.7%) had at least 1 viral load (VL) measure within 6 months of DTG/3TC initiation.
- Initial suppression (VL <50 copies/ml) was attained for 41 TN-PWH (89.1%) after 6 months of initiation of DTG/3TC, with a median time to viral suppression of 1.1 [1.0;1.9] months, and no virological failure during the first follow-up year (Figure 1).
- After switch to DTG/3TC, 216 PT-PWH (96.0%) maintained a VL<50 copies/ml (Figure 2). 9 PT-PWH did not maintain a VL<50 copies/ml : 5 due to intermittent viremia, and 4 due to virological failure (no available genotypic resistance testing for these 4 patients, 2 of 4 discontinued DTG/3TC).
- CD4 cell count was ⩾ 500 cell/mm^3 at 1 year for 74.1% (N=20) of TN-PWH VS 48.1% (N=26) at baseline and 78.7% (N=111) for PT-PWH VS 79.1 % (N=185) at baseline.

Table 1. Patient characteristics at DTG/3TC initiation

	TN-PWH (N=56)	PT- PWH (N=248)
Age (years; *mean ± SD*)	37.1 (±13.5)	50.8 (±12.9)
Gender (men; *n, %)*	47 (83.9%)	185 (74.6%)
BMI kg/m² (*mean ± SD*)	N= 47 24.6 (±6.0)	N= 224 25.3 (±4.0)
Comorbidities (3 or more; *n, %)*	4 (7.1%)	50 (20.2%)
Main comorbities for TN-PWH (*n,%)*		
HCV	5 (8.9%)	-
Dyslipidemia	4 (8.5%)	-
HTA	4 (7.4%)	-
Diseases of the respiratory system (J00-J99)	4 (7.1%)	-
Main comorbidities for PT-PWH (*n,%)*		
Dyslipidemia	-	71 (30.5%)
HTA	-	56 (22.8%)
Anxiety and depressive disorders	-	29 (12.1%)
Time since diagnosis for TN-PWH Months (*Median [Q1-Q3]*)	0.8 [0.5;1.4]	-
Time since diagnosis for PT-PWH Years (*Median [Q1-Q3]*)	-	13.0 [6.0;21.0]
HIV clinical stage, CDC classification (*n,%)*		
Category A	56 (100.0%)	192 (77.4%)
Category B	0	17 (6.9%)
Category C (AIDS)	0	39 (15.7%)
Duration of ART treatment prior to inclusion for PT-PWH Years (*mean ± SD*)	-	12.2 (±8.0)
CD4 count Cell/mm^3 (*mean ± SD*)	N= 54 495 (±257)	N= 234 751 (±347)
Viral load at inclusion if detectable for TN-PWH Log10 (*mean ± SD*)	N= 56 4.3 (±1.0)	-

SD: standard deviation; BMI: body mass index; CDC: Center for Disease Control. Viral load at baseline was undetectable for all PT-PWH (n=248).

Figure 1. Kaplan-Meier of time to viral suppression for TN-PWH

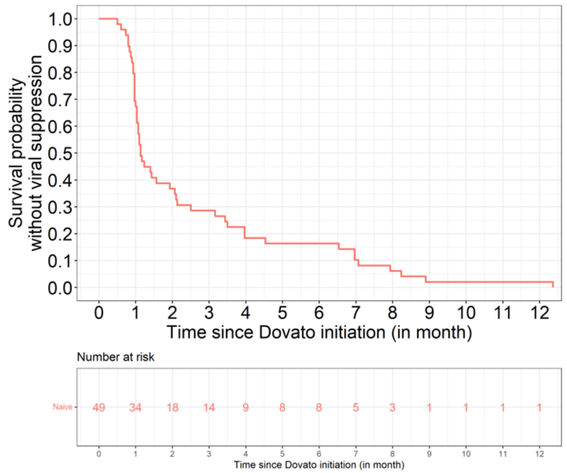
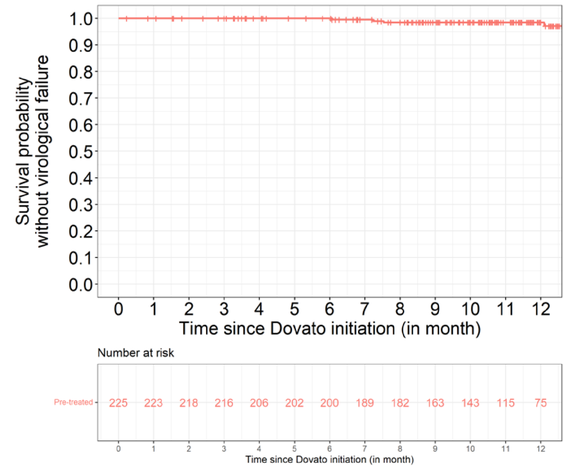


Figure 2. Kaplan-Meier of virological failure for PT-PWH



Safety

- DTG/3TC was discontinued in 24 PT-PWH (9.7%) : 11 due to patient choice, 10 for safety reasons (Table 2), 2 for virological failure, 1 missing discontinuation reason. DTG/3TC was discontinued in 1 TN-PWH (1.8%) due to patient choice.
- Mean change in body weight during the 1 follow-up year is +0.7 (±5.6) kg (NS) for TN-PWH (N=31) and +0.1 (±4.3) kg (NS) for PT-PWH (N=152).

Table 2. Safety cases leading to DTG/3TC discontinuation for PT-PWH

ADVERSE EVENTS (AEs)	PT-PWH (N=248)
Musculoskeletal and connective tissue disorders	5 (2.0%)
General disorders and administration site conditions	4 (1.6%)
Nervous system disorders	4 (1.6%)
Injury, poisoning and procedural complications	3 (1.2%)
Gastrointestinal disorders	2 (0.8%)
Hepatobiliary disorders	2 (0.8%)
Psychiatric disorders	2 (0.8%)
Vascular disorders	2 (0.8%)
Infections and infestations	1 (0.4%)
Investigations	1 (0.4%)
Metabolism and nutrition disorders	1 (0.4%)
Skin and subcutaneous tissue disorders	1 (0.4%)
Social circumstances	1 (0.4%)

A patient could present several AEs

Conclusions

- Based on one-year follow-up analysis results, DTG/3TC demonstrated virological efficacy in both TN-PWH and PT-PWH in routine clinical care.
- 89.1% TN-PWH attained a VL<50 copies/ml after 6 months of treatment initiation and 96.0% of PT-PWH maintained a VL<50 copies/ml after switching to DTG/3TC.
- There was no virological failure in TN-PWH and only 4 in PT-PWH during the first follow-up year.
- DTG/3TC was discontinued for 8.2% PWH, mainly due to patient choice.
- DTG/3TC had no significant impact on patient's body weight during the first year of follow-up.
- **These real-life conditions results confirm those observed in clinical trials in terms of efficacy and safety of DTG/3TC for both treatment-naïve and pre-treated PWH.**

Acknowledgments: The authors thank the study participants and caregivers; the investigators and site staff who participated in the study; and the ViiV Healthcare, GlaxoSmithKline, and QUALEES.

References: 1. Figueroa et al. IAS 2017; Paris, France. Poster MOPEB0287. **2.** Joly et al., EACS 2017, Poster PE9/11. **3.** An Efficacy, Safety, and Tolerability Study Comparing Dolutegravir Plus Lamivudine With Dolutegravir Plus Tenofovir/Emtricitabine in Treatment naïve HIV Infected Subjects (Gemini 1). Retrieved November 24, 2017

Presenting author: **Patrick PHILIBERT; p.philibert@hopital-europeen.fr**

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.