# Outcomes after switch to DTG/3TC in PLWH: A single-centre study

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## Background

Dual therapy with DTG/3TC has been demonstrated to be safe and efficacious in three randomised controllled trials (RCTs). In addition, TAF-containing regimens are increasingly used due to the adverse metabolic outcomes associated with TDF. There are scant data regarding reasons for switch Previous studies have shown an improvement in lipids in patients switched to DTG/3TC. The purpose of this study was to assess (1) reasons for switching to DTG/3TC and retention on treatment, (2) changes in lipid parameters following switch.

## Methods

Patients prescribed DTG/3TC were identified from pharmacy records. Indications for change of therapy, reasons for discontinuation were collected. Random lipid samples at scheduled visits were assessed for changes after switch to DTG/3TC. We used paired t-tests to assess differences in mean lipid levels at six, twelve and eighteen months post switch. This study received approval from CREC.

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**Table 1.**

| Demographic | |
|---|---|
| Age (median, years) | 43 |
| Sex, n (%) | |
| Male | 62 (67) |
| Female (CGW) | 30 (32) |
| Baseline 3rd agent, % | |
| INSTI | 60% |
| NNRTI | 25% |
| PI | 15% |
| Baseline TAF, % | 69% |
| Ethnicity, % | |
| White | 59 |
| Black African | 25 |
| Asian | 8 |
| Other | 7 |
| ART duration, median (range) | 9 (23) years |

*Switch to dual therapy with DTG/3TC was **well tolerated**, with overall **favourable** changes in **lipid profiles**.*

**Table 2.** Results of changes in median lipids using student's t test with 95% CI

| Parameter | 6 months | 12 months | 18 months |
|---|---|---|---|
| TC | -0.34 (-0.092 – 0.59, p=.008) | n/a[1] | -0.091 (0.28 – 0.46, p=.50) |
| LDL | -0.206, (–0.01 – 0.42, p=0.06) | -0.20 (0.01 – 0.42, p=0.06) | -0.25 (-0.063 – 0.572, p=0.11) |
| TG | -0.3 (0.04 – 0.59, p=0.025) | -0.31 (0.04 – 0.59, p=0.025) | 0.33 (-0.91 – 0.23, p=0.23) |
| HDL | -0.034 (-0.027 – 0.095, p=0.27) | 0.02 (-0.10 – 0.059, p = 0.6) | 0.08 (0.20 – 0.041, p=0.18) |
| TC:HDL ratio | -0.11, (-0.051 – 0.27, p=0.18) | -0.097 (-0.105 – 0.299, p=0.34) | -0.31 (.08 – 0.54, p=0.01) |

TC = Total Cholesterol, LDL = Low density lipoprotein, HDL = high density lipoprotein,

[1]Missing data values preclude analysis.

## Results

92 patients were included for analysis. Baseline demographic data included in **Table 1.** The most common reasons for switching to DTG/3TC were side effects to current regimen (33%), DDIs (14%) and weight gain (12%). Eighty-four (91%) remained on DTG/3TC at end of study. The main reason for discontinuation was side effects (75%). Viral blips were identified in 4 (6%) patients. None were associated with virological failure or development of resistance. Lipid profile changes are shown in **Table 2**. Overall, there was sustained decrease in TC/HDL ratio at 18 months.

## Limitations

Lipid values represent random samples. Fasting lipid samples provide more accurate risk assessment. Data on initiation of lipid-lowering therapy was not collected. Further analysis with regression analysis are ongoing.

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