



# EMTRICITABINE/ELVITEGRAVIR/COBICISTAT/TENOFOVIR: EFFECTS ON LIPID METABOLISM AND RENAL FUNCTION

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## Background

EMTRICITABINE/ELVITEGRAVIR/COBICISTAT/TENOFOVIR (FTC/EVG/COBI/TAF) changes levels of cholesterol and triglyceride

## Purpose

To assess the effect on lipid metabolism and renal function in patients with human immunodeficiency virus (HIV) treated with the antiretroviral FTC/EVG/COBI/TAF

## Material and methods

Retrospective study from November 2016 to April 2017. VIH patients who started treatment with FTC/EVG/COBI/TAF and had blood tests before and after treatment initiation (3 and 6 months after initiation) were included.

Data were obtained from the Farmatools® outpatients program and from the electronic medical history software Drago AE ®.

We compared pre and post-treatment values of total cholesterol, plasma triglycerides, serum creatinine and creatinine clearance (crCl).

We considered that a variation in analytical data had occurred if there were differences greater than 10 mg / dL in total cholesterol and triglycerides values, and 0.1 mg/dL in creatinine (Cr) values.

## Results

A total of 62 patients were included in the study, 69.1% (47) men and 30.9% (21) women, mean patient age was 30 years ( 18-79).

Overall, 10 of them were naive patients, 30 patients were previously treated with FTC/EVG/COBI/tenofovir disoproxil fumarate (TFD), 21 patients were previously treated with another antiretroviral therapy containing TDF and 1 patient switched from monotherapy with viral protease inhibitors.

Also, 67.6% of patients (46) presented a mean increase of  $86.09 \pm 67.7$  mg/dL in their triglyceride levels (median increase of 63 mg / dL).

As for total cholesterol, 82,3% of patients (56) showed a mean elevation of  $39.07 \pm 17.5$  mg/dL (median of 41 mg/dL).

Regarding the creatinine and crCl values, none of the patients had a creatinine clearance below 60 mg/dl. Overall, 76.4% of the patients (52) showed a mean decrease of  $0.22 \pm 0,12$  mg/dL (median of 0.17mg/dL). None of the patients showed an increase in their creatinine values.

## Conclusion

With the new antiretroviral FTC/EVG/COBI/TAF, an increase in total cholesterol and triglyceride levels was observed in most patients. An improvement in serum creatinine values was also seen.

Taking these results into account, it would be necessary to study in greater depth and with a greater number of patients to determine the clinical consequences of these first data obtained in real life