



Date of report 31 Oct 2024

## Reported case interaction between **Cobicistat** and **Simvastatin**

### Drugs suspected to be involved in the DDI

Perpetrator

**Cobicistat**

Daily Dose

150 (mg)

Dose adjustment performed

No

Administration Route

Oral

Start date

April 29, 2016

End date

Ongoing

Victim

**Simvastatin**

Daily Dose

20 (mg)

Dose adjustment performed

No

Administration Route

Oral

Start date

March 1, 2019

End date

April 12, 2024

## Complete list of drugs taken by the patient

Antiretroviral treatment  
Darunavir/Cobicistat  
Dolutegravir

Complete list of all comedications taken by the patient, included that involved in the DDI

Simvastatin 20 mg every 24 hours orally; nasal budesonide very occasionally 50 mcg/dose; valacyclovir 500 mg every 12 hours orally; loratadine 10 mg every 24 hours orally as needed.

## Clinical case description

Gender  
Male

Age  
43

eGFR (mL/min)  
>60

Liver function impairment  
No

### Description

The patient had been on antiretroviral therapy with DTG 50 mg every 12 hours + DRV/c 800/150 mg every 24 hours since April 2016. In January 2019, atorvastatin 10 mg every 24 hours orally was started for mixed dyslipidemia, which was changed to simvastatin 20 mg/day in March 2019. Since March 2019, the patient has been receiving concomitant treatment with simvastatin and boosted antiretroviral therapy without presenting toxicity (creatinine kinase normal - 87 U/L - in September 2023). In April 2024, simvastatin 20 mg/day was changed to atorvastatin 20 mg/day to minimize the risk of interactions.

## Clinical Outcome

**No unwanted outcome**

## Editorial Comment

This case represents a common and interesting situation in the primary care medical environment.

According to the label/product information, the drug-drug interaction between darunavir/cobicistat has not been formally studied. Nevertheless simvastatin is expected to have markedly increased plasma concentrations when co-administered with boosted protease inhibitors. Increased plasma concentrations of simvastatin may cause myopathy, including rhabdomyolysis. **Concomitant use of darunavir/cobicistat with simvastatin is therefore contraindicated.**

Although in this case no adverse effects have been observed as a consequence of the interaction, some cases of rhabdomyolysis have been published after the association of cobicistat with simvastatin.

[Ref: Perrone C, Rauch A, Furrer H, Hug M, Wandeler G. Fewer pills do not mean fewer drug-drug interactions: severe rhabdomyolysis on Elvitegravir/ Cobicistat and statin treatment. AIDS. 2018 Mar 13;32(5):676-678; Godinho R, Bugnon S, Gracin T, Tataw J. Severe rhabdomyolysis-induced acute kidney injury following concomitant use of Genvoya® (EVG/COBI/FTC/ TAF) and simvastatin; a case report. BMC Nephrol. 2019 Feb 26;20(1):69. doi: 10.1186/s12882-019-1257-6].

## University of Liverpool Recommendation

- These drugs should not be coadministered

For more information [click here](#)