clinical cases DDIs

Date of report 09 May 2019

Reported case interaction between **Cobicistat** and **Atorvastatin**

Drugs suspected to be involved in the DDI

Perpetrator
Cobicistat

Daily Dose
150 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Unknown

End date
Ongoing

Victim
Atorvastatin

Daily Dose
40 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Feb. 1, 2019

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Darunavir/Cobicistat/Emtricitabine/Tenofovir-AF

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

Atrovastatin, cotrimoxazole, fenofibrate, alprazolam

Clinical case description

Gender

Male

Age

56

eGFR (mL/min)

>60

Liver function impairment

No

Description

56 year-old male. Current smoker. HIV infection on cART with darunavir/cobicistat/FTC/TAF. Dyslipidemia on treatment with atorvastatin. Suboptimal control of LDL-cholesterol with atorvastatin 20 mg qd (LDL 170 mg/dL; target <130 mg/dL). In February 2019 atorvastatin dose in increased to 40 mg qd. Good tolerance. In May 2019 LDL-cholesterol has decreased to 117 mg/dL. Liver enzyme levels (AST/ALT) and CPK levels remain within the normal range.

Clinical Outcome

No unwanted outcome

Editorial Comment

Coadministration of darunavir/cobicistat and atorvastatin increased atorvastatin AUC and Cmax by 290% and 319% due to inhibition of CYP3A4, OATP1B1 and BCRP by darunavir/cobicistat. When administration of atorvastatin and darunavir/cobicistat is required, it is recommended to initiate atorvastatin with the lowest dose, and titrate to desired response while monitoring for safety. A daily dose of 40 mg atorvastatin should not be exceeded with careful safety monitoring. Suboptimal cardiovascular risk management has been described in HIV patients. Intensification of lipid lowering therapy and control of other cardiovascular risk factors may be required (Rosan A van Zoest, et al. Eur J Prev Cardiol. 2017 Aug; 24(12): 1297–1307).

University of Liverpool Recommendation

■ Potential interaction - may require close monitoring, alteration of drug dosage or timing of administration

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