clinical cases DDIs

Date of report 16 Jul 2024

Reported case interaction between **Cobicistat** and **Drospirenone**

Drugs suspected to be involved in the DDI

Perpetrator
Cobicistat

Daily Dose
150 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
March 10, 2020

End date
May 2, 2024

Victim
Drospirenone

Daily Dose
4 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
April 16, 2024

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

Drospirenone 4mg/d
Citalopram 10mg/d

Clinical case description

Gender

Female

Age

35

eGFR (mL/min)

>60

Liver function impairment

No

Description

A female patient with HIV had a history of poor adherence to ART, leading to a switch from RPV/FTC/TAF to DRVc/FTC/TAF in 2020. She had a medical history of depression, for which she was on citalopram therapy, and ovarian cysts. For the latter, her gynecologist prescribed drospirenone without checking for potentially relevant drug-drug interactions (DDIs). Despite not experiencing any adverse events (which may be more frequent due to increased exposure to drospirenone), at her next visit with her HIV doctor, ART was modified to BIC/FTC/TAF.

Most guidelines recommend removing PK enhancers whenever possible to avoid risky DDIs with drugs that may be prescribed by other healthcare professionals.

Clinical Outcome

No unwanted outcome

Editorial Comment

Cobicistat is a potent inhibitor of CYP3A4 which is involved in drospirenone metabolism. Drospirenone AUC increased by 58% when a combined oral contraceptive containing drospirenone and ethinylestradiol was coadministered with darunavir/cobicistat. When darunavir/cobicistat is coadministered with a drospirenone-containing product, clinical monitoring is recommended due to the potential for hyperkalaemia.

University of Liverpool Recommendation

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

For more information click here