clinical cases DDIs

Date of report 04 Jul 2019

Reported case interaction between **Dolutegravir** and **Oxcarbazepine**

Drugs suspected to be involved in the DDI

Victim
Dolutegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2016

End date
Ongoing

Perpetrator
Oxcarbazepine

Daily Dose
600 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 1, 2017

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Dolutegravir/Abacavir/Lamivudine

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

Oxcarbazepine (600 mg qd), quetiapine (300 mg qd), olanzapine (15 mg qd), mirtazapine (15 mg qd)

Clinical case description

Gender

Male

Age

41

eGFR (mL/min)

>60

Liver function impairment

No

Description

41-year-old patient diagnosed with HIV infection in 2005. On cART with dolutegravir/3TC/ABC since 2016. No prior failures. Psycotic disorder on treatment with quetiapine (300 mg qd), olanzapine (15 mg qd), mirtazapine (15 mg qd) and, since November 2017, with oxcarbazepine (600 mg qd). Despite potential decrease in dolutegravir concentrations due to induction of UGT1A1 and CYP3A by oxcarbazepine, the patient has maintained HIV viral load <50 copies/mL until last follow up (June 2019), even when he is receiving dolutegravir 50 mg qd (the European SPC suggests that dolutegravir be dosed at 50 mg twice daily in this context).

Clinical Outcome

No unwanted outcome

Editorial Comment

Coadministration of dolutegravir with oxcarbazepine, phenytoin or phenobarbital has not been studied but, based on results of coadministration with carbamazepine, is expected to decrease dolutegravir exposure due to induction of UGT1A1 and CYP3A. The US Prescribing Information advises to avoid coadministration due to insufficient data to make dosing recommendations. However, the European SPC suggests that dolutegravir be dosed at 50 mg twice daily, but recommends that alternative combinations should be used where possible in INSTI-resistant patients.

University of Liverpool Recommendation

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

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