clinical cases DDIs

Date of report 18 Dec 2023

Reported case interaction between **Bictegravir** and **Oxcarbazepine**

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
March 31, 2021

End date
Ongoing

Perpetrator
Oxcarbazepine

Daily Dose
600 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
June 1, 2013

End date
June 1, 2022

Complete list of drugs taken by the patient

Antiretroviral treatment

Bictegravir/Emtricitabine/Tenofovir-AF

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

Oxcarbazepine, Mirtazapine, Fluoxetine, Enalapril/HCZ, Omeprazole

Clinical case description

Gender

Female

Age

66

eGFR (mL/min)

>60

Liver function impairment

No

Description

This is a clinical case describing some DDIs between ARV (BIC, b/DRV and MVC) and oxcabrazepine as concomitant drug. Female, 67 years old with HIV infection diagnosed in 1999. Undetectable viral load fron March 2014 to present. The patient had received the following ARV regimens:

- DRV/r 800/100mg + MVC 300mg QD (from 27/12/2013 to 21/06/2016), due to viral failure and M184V and K103N mutations emergence with EFV/FTC/TDF.
- DRV/c 800/150mg + MVC 300mg QD (from 21/06/2016 to 31/03/2021), a a simplification strategy to reduce the number of pills.
- BIC/FTC/TAF (from 31/02/2021 and ongoing), to simplify to a STR and to improve lipid profile, as the patient had developed hypercholesterolemia that required statins.

The patient had been taking oxcarbazepine (always same dose, 300mg/12h) since June 2013 due to a long history of alcohol abuse and in order to control withdrawal syndrome, as well as, long-time depression. Oxcarbazepine was stopped by Psychiatrist in June 2022, due to a mild hyponatremia, and it was changed to Quetiapine and Pregabalin.

Clinical Outcome

No unwanted outcome

Editorial Comment

Oxcarbazepine may induce CYP3A, UGT1A1, and P-gp, potentially decreasing plasma concentrations of different antiretroviral drugs, including darunavir, bictegravir and tenofovir alafenamide, which may result in loss of therapeutic effect and development of resistance. Therefore, co-administration is not recommended, and alternative anticonvulsants should be considered. If not possible, consider dolutegravir 50 mg BID.
In this case, despite the potential interactions no viral rebound was observed. However, a close monitoring should be recommended and, if possible, TDM might be useful.

University of Liverpool Recommendation

- These drugs should not be coadministered

For more information click here

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