clinical cases DDIs

Date of report 31 Jan 2023

Reported case interaction between **Bictegravir** and **Voriconazole**

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 11, 2022

End date
Ongoing

Perpetrator
Voriconazole

Daily Dose
400 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 4, 2022

End date
Nov. 30, 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

Voriconazole, alprazolam, pantoprazole, folinic acid, enoxaparin, tramadol, beclomethasone/formoterol, tiotropium bromide, methylprednisolone, meropenem, ganciclovir, trimethoprim/sulphametoxazol

Clinical case description

Gender

Male

Age

49

eGFR (mL/min)

>60

Liver function impairment

No

Description

A male patient with asthma and pulmonary emphysema was admitted for fever, dyspnea and weight loss. He was diagnosed with AIDS (12 CD4+, CD4/CD8 ratio 0.1) with Pneumocystis jirovecii pneumonia, wasting syndrome, disseminated CMV infection, hospital acquired pneumonia, persistent COVID-19 and invasive aspergillosis. He was treated with cotrimoxazole, ganciclovir, meropenem, remdesivir. Invasive aspergillosis was treated with oral voriconazole with a loading dose of 300 mg twice and then 200 mg twice daily. One week later HAART was started with BIC/FTC/TAF. Clinical and radiological outcome were satisfactory. No side effects (neurological or hepatic) were observed. Voriconazole Ctrough was within expected range

(2644 ng/mL, range 1500-5000) as well as bictegravir Ctrough (1524 ng/mL). Patient's genetic background showed a common-normally functioning CYP3A4, CYP2C19 and CYP2C9.

Clinical Outcome

No unwanted outcome

Editorial Comment

Voriconazole is a potent CYP3A4 inhibitor, with the potential to increase bictegravir concentrations which is not thought to be clinically significant due to its wide therapeutic window. Interactions with some of the other comedications could be expected, including methylprednisolone and tramadol. Voriconazole could increase tramadol exposure while reducing the conversion to its more potent active metabolite, warranting the need to monitor for tramadol related side effects in addition to the analgesic effect.

University of Liverpool Recommendation

⚠ Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required

For more information click here

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