clinical cases DDIs

Date of report 01 Oct 2021

Reported case interaction between **Nevirapine** and **Quetiapine**

Drugs suspected to be involved in the DDI

Perpetrator
Nevirapine

Daily Dose
400 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Sept. 1, 2003

End date
Aug. 10, 2021

Victim
Quetiapine

Daily Dose
200 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Unknown

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Emtricitabine/Tenofovir-AF
Nevirapine

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

Quetiapine, Desvenlafaxine, clopidogrel, atorvastatin, esomeprazole, valaciclovir, cholecalciferol, testosterone IM, Denosumab

Clinical case description

Gender

Male

Age

61

eGFR (mL/min)

60-30

Liver function impairment

No

Description

Pt had been stable on nevirapine and tenofovir AF/ emtricitabine, however suffered a acute TIA/stroke (ICA occlusion/plaques), treated with change from aspirin to clopidogrel, and increased statin (rosuvastatin 20mg switched to atorvastatin 80mg). Severe depression in past, but has been stable on desvenlafaxine and quetiapine 200mg for years, and was reluctant to make changes to ART if quetiapine levels would be effected. We wanted to ensure he was getting maximum benefit from atorvastatin (vascular surgeons have opted not for surgical intervention of carotid plaques), so switched Nevirapine to bictegravir 10/8/21. We warned him his quetiapine may have been lowed by nevirapine, so by removing it levels would be higher and

might experience increased adverse effects (sedation etc). Monitored patient weekly with clinic phonecalls, and after 1 week the pt felt no changes, but at 2 weeks patient reported sedation/drowsiness and reduced his quetiapine to half dose (100mg) with good effect. Now 4 weeks later, and pt stable on this dose.

Clinical Outcome

Toxicity

Drug Interaction Probability Scale (DIPS)

Score

5 - Probable

Editorial Comment

This case illustrates the importance of readjusting the dosage of comedications when switching antiretroviral treatment , i.e from a treatment with inducing or inhibitory effects on CYPs (like nevirapine) to a treatment devoid of inhibitory effects (like bictegravir). Quetiapine is a substrate of CYP3A4 so its dosage had to be increased in presence of the CYP3A4 inducer nevirapine. Replacing nevirapine by bictegravir required to reduce quetiapine dosage.

University of Liverpool Recommendation

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

For more information click here