clinical cases DDIs

Date of report 13 Oct 2020

Reported case interaction between **Efavirenz** and **Solifenacin**

Drugs suspected to be involved in the DDI

Perpetrator
Efavirenz

Daily Dose
600 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
May 1, 2009

End date
Ongoing

Victim
Solifenacin

Daily Dose
10 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Feb. 28, 2020

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Efavirenz/Emtricitabine/Tenofovir-DF

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

Mirabegron, Buprenorphine, Capsaicin cream, Clenil Modulite, Omeprazole, Atorvastatin, Tramadol, Ferrous sulfate, Co-amilofruse, Folic acid, Salbutamol, Zerodouble gel, Amitriptyline, Salmeterol, CosmoCol, Warfarin, Solifenacin, Doxazosin

Clinical case description

Gender

Female

Age

52

eGFR (mL/min)

>60

Liver function impairment

No

Description

52 Female on Atripla since 2009. Well controlled HIV. Last pVL <20 Dec 19, CD4 461. Overactive bladder diagnosed in 2018. She was started on solifenacin but it was stopped in Dec 19 due to lack of improvement. In Feb 2020 the patient was restarted on solifenacin, and mirabegron was added to treatment, with susequent improvement in symptomatology.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

3 - Possible

Editorial Comment

This clinical case highlights the difficulty of managing drug-drug interactions between antiretroviral treatment and polymedication (more than 15 drugs, many of which are substrates for CYP3A4 and most of coadministrations have not been studied). The mechanism of solifenacin's ineffectiveness seems quite simple and could be reduced to the hypothesis of CYP3A4 enzymatic induction of its metabolism by efavirenz. However, the effectiveness of the efficacy regained after the addition of mirabegron is more obscure. Usually, solifenacin and mirabegron should be combined only with caution due to the increased toxicity of solifenacin.

University of Liverpool Recommendation

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

For more information click here