clinical cases DDIs

Date of report 21 Dec 2021

Reported case interaction between **Ritonavir** and **Daclatasvir**

Drugs suspected to be involved in the DDI

Perpetrator
Ritonavir

Daily Dose
100 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
June 13, 2016

End date
Ongoing

Victim
Daclatasvir

Daily Dose
60 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Sept. 8, 2020

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Atazanavir (with Ritonavir or Cobicistat)
Emtricitabine/Tenofovir-DF

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

Metformin 850 mg OD, Sofosbuvir 300mg/Daclatasvir 60mg

Clinical case description

Gender

Male

Age

32

eGFR (mL/min)

>60

Liver function impairment

Yes

Child-Pugh

Child-Pugh B

Description

Social Hx:

- Injecting drug user
- Alcoholic
- Heavy smoker

Medical Hx:

- Living with HIV five years ago and on HAART
- Diagnosed with DM type II 2 years ago and on Metformin

Upon follow up after 4 weeks starting Hep C (Tab Sofosbuvir 300mg/Daclatasvir 60mg) :

- Patient complaint easy feel tired and lose of appetite
- Physical examination - jaundice
- Elevated ALT (71 U/L), anaemia (HB = 9 d/L)

- Blood glucose plasma level = 11 mm/mol

Suspect:

- Toxicity of Daclatasvir (CYP3A4 metabolite) due to inhibition of Ritonavir (CYP3A4 inhibitor) decrease the elimination and remain in the plasma.
- Action is to reduce the Daclatasvir dose from 60mg to 30mg.

Clinical Outcome

Toxicity

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

This interaction is highlighted in the Daklinza Prescribing Information ie a PK study is described showing a decrease in exposure of daclatasvir (non dose normalized data) with the recommendation to 'decrease the daclatasvir dose to 30 mg once daily'. This case highlights the importance of the prescriber/health care professional having ready access to the relevant information before starting treatment. This patient should not have been on daclatasvir 60 mg. Note that hepatic impairment (CP-A, CP-B or CP-C) has no effect on daclatasvir exposure unlike the major impact on HCV protease inhibitors. This patient was CP-B.

University of Liverpool Recommendation

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

For more information click here