clinical cases DDIs

Date of report 13 Feb 2020

Reported case interaction between **Raltegravir** and **Mineral supplements**

Drugs suspected to be involved in the DDI

Victim
Raltegravir

Daily Dose
1200 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2015

End date
Jan. 28, 2020

Perpetrator
Mineral supplements

Daily Dose
200 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 1, 2019

End date
Dec. 10, 2019

Complete list of drugs taken by the patient

Antiretroviral treatment

Raltegravir
Emtricitabine/Tenofovir-DF

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

Magnesium supplements

Clinical case description

Gender

Male

Age

48

eGFR (mL/min)

>60

Liver function impairment

No

Description

48 year-old patient. HIV diagnosis in 2014 (baseline viral load 100,000 copies/mL). ART initiated with DTG/ABC/3TC, and changed to RAL (1200 mg QD) + FTC/TDF due to liver enzyme elevation. Viral load <40 copies/mL after 4 weeks on ART. No blips. Self-reported adherence 100%. In December 2019 viral load was 98 copies/mL. No concomitant ilness or vaccination. The patient reported that he had started taking magnesium supplements (200 mg QD 8 hours after ART, Start date 1st Nov 2019). Despite discontinuing magnesium, a second viral load drawn 4 weeks appart remained detectable (69 copies/mL). It was considered as a virologic failure and ART was changed to DRV/c/FTC/TAF. Despite taking magnesium 8 hours apart from raltegravir, raltegravir through may be substantially decreased by divalent cations when it is

administered QD, and this may have contributed to the virologic failure observed in this patient.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

Co-administration of RAL 1200 mg once daily with divalent metal cations , including magnesium supplements, are likely to result in clinically meaningful reductions in the plasma trough levels of raltegravir. Therefore, co-administration of magnesium containing supplements with RAL 1200 mg once daily is not recommended. (Isentress Summary of Product Characteristics, Merck Sharp & Dohme Ltd, March 2019).

University of Liverpool Recommendation

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

For more information click here