Date of report 22 Jun 2020

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

Drugs suspected to be involved in the DDI

Victim
Dolutegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
April 2, 2018

End date
Ongoing

Perpetrator
Mineral supplements

Daily Dose
420 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Unknown

End date
Unknown

Complete list of drugs taken by the patient

Antiretroviral treatment

Dolutegravir/Abacavir/Lamivudine

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

Magnessium supplements

Clinical case description

Gender

Female

Age

40

eGFR (mL/min)

>60

Liver function impairment

No

Description

40 year-old woman, diagnosed with HIV infection in April 2004. Since April 2018 on cART with DTG/ABC/3TC, with undetectable plasma viral load (pVL). In March 2019 pVL was 120 copies/mL, but she assured being adherent to cART. Three months after, repeated pVL was 380 copies/mL. TDM showed low dolutegravir Ctrough (0.38 µg/mL). Repeated adherence consultation revealed intake of Mg++ supplements (magnesium citrate, 420 mg QD) together with Triumeq at night. The patient was advised to stop taking magnesium at the same time with dolutegravir, and to take it either 2-3 hours before or 6 hours after taking dolutegravir. After several months she achieved undetectable pVL again.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

Dolutegravir binds to divalent cations, such as magnesium, and forms a complex at the level of the gastro-intestinal tract which results in less dolutegravir being absorbed. Dolutegravir should be administered 2 hours before or 6 hours after taking medications containing magnesium. Dolutegravir should be administered 2 hours before or 6 hours after taking medications containing magnesium.

University of Liverpool Recommendation

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

For more information click here