Date of report 22 Dec 2021

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

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
April 15, 2020

End date
Ongoing

Perpetrator
Mineral supplements

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Oral

Start date
July 1, 2021

End date
Sept. 15, 2021

Complete list of drugs taken by the patient

Antiretroviral treatment

Bictegravir/Emtricitabine/Tenofovir-AF

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

Magnessium supplements

Clinical case description

Gender

Male

Age

44

eGFR (mL/min)

>60

Liver function impairment

No

Description

An overall healthy man living with was on ART for more 5 years, including two InSTI-based ARV regimens (FTC/TAF/EVGc and FTC/TAF/BIC). He always presented undetectable viral load since the first control on ART, more than 4 years ago, and always reported good adherence to ART. He had no other relevant medical history and he was not taking any other regular medication apart from ART.

In September 2021, he presented with detectable VL at 70 copies/mL for the first time since ART initiation (5 years before). He denied any adherence problems or any new medication but he referred had started two months before a vitamin supplement which included Mg2+. It was indicated to stop this supplement and VL was repeated 2 months later, becoming undetectable again.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

7 - Probable

Editorial Comment

Bictegravir binds to divalent cations, such as magnesium, and forms a complex at the level of the gastro-intestinal tract which results in less bictegravir being absorbed. Biktarvy should not be co-administered simultaneously with divalent cations under fasted conditions. Biktarvy should be administered at least 2 hours before mineral supplements containing calcium, iron, aluminium or magnesium, or taken simultaneously with food. Biktarvy should be administered at least 2 hours before, or 6 hours after antacids containing magnesium and/or aluminium.

University of Liverpool Recommendation

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

For more information click here

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