



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

Magnesium 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 Mg<sup>2+</sup>. 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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