clinical cases DDIs

Date of report 08 Oct 2026

Reported case interaction between **Bictegravir** and **Antacids**

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 20, 2023

End date
Ongoing

Perpetrator
Antacids

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Oral

Start date
March 11, 2026

End date
April 23, 2026

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

Antacid (aluminum hydroxide, magnesium hydroxide and simethicone)

Clinical case description

Gender

Male

Age

41

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 41-year-old man with HIV infection had maintained virological suppression on bictegravir/emtricitabine/tenofovir alafenamide (BIC/FTC/TAF) for more than 2 years, with HIV-1 RNA consistently <30 copies/mL and no history of virological failure.

In March 2026, he developed persistent dyspeptic symptoms and independently started an over-the-counter antacid containing aluminium hydroxide, magnesium hydroxide and simethicone. He routinely took the antacid together with BIC/FTC/TAF in the morning before breakfast.

Six weeks later, routine laboratory monitoring showed an unexpected increase in HIV-1 RNA to 380 copies/mL. The patient reported complete adherence to ART and denied missed doses. Medication reconciliation identified the recently

initiated antacid and its simultaneous administration with ART under fasting conditions.

Polyvalent cations such as aluminum and magnesium can chelate bictegravir in the gastrointestinal tract, substantially reducing its absorption. Simultaneous administration of an aluminum/magnesium containing antacid with bictegravir under fasting conditions has been shown to reduce bictegravir exposure by approximately 80%.

The antacid was therefore discontinued and replaced with famotidine 20 mg twice daily, for which no clinically significant interaction with BIC/FTC/TAF was expected. BIC/FTC/TAF was continued unchanged.

Four weeks later, HIV-1 RNA had returned to <30 copies/mL and remained suppressed during subsequent follow-up. No resistance-associated mutations were detected.

In this case, the temporal association between initiation of an aluminum/magnesium containing antacid, transient viraemia, and subsequent resuppression after antacid withdrawal is consistent with a clinically relevant drug-drug interaction, although causality cannot be established definitively.

The case also highlights the importance of explicitly asking about over-the-counter medications and supplements during medication reconciliation, as patients may not report these products spontaneously.

Aluminum and magnesium containing antacids should be appropriately separated from BIC/FTC/TAF according to prescribing recommendations. Alternatively, an acid-suppressive agent without polyvalent cations, such as an H2-receptor antagonist, may be used when clinically appropriate.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

The DDI between antiacids (containing aluminium and magnesium) and is well-known and the the coadministration requires the intake of the antiacid 2 hours before or 6 hours after bictegravir dose. Simultaneous administration of the antacid and bictegravir decreased bictegravir AUC and Cmax by 79% and 80% (fasted conditions) and by 47% and 49% (fed conditions). In this case the DDI probably lowrd BIC exposure and viral rebound was observed: the long virological suppression and the full efficacy of TAF and FTC was probably the reasons that avoided the selection of resistance-associated mutations and the re-suppression with th same ARVS after the withdrawal of the concomitant interacting drug.

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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