clinical cases DDIs

Date of report 20 Oct 2026

Reported case interaction between **Bictegravir** and **Metamizole**

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Dec. 4, 2024

End date
Ongoing

Perpetrator
Metamizole

Daily Dose
3 (gr)

Dose adjustment performed
No

Administration Route
Oral

Start date
Unknown

End date
Unknown

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

Metamizole

Clinical case description

Gender

Male

Age

56

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 56-year-old man living with HIV was receiving antiretroviral therapy consisting of Biktarvy (bictegravir/emtricitabine/tenofovir alafenamide 50/200/25 mg once daily). HIV RNA was undetectable, with stable CD4+ T-cells count and no previous history of virological failure.
Due to acute severe musculoskeletal pain associated with fever, the patient self-administered Metamizole at a dose of 1 g orally three times daily (total daily dose: 3 g/day) for 14 consecutive days.
Considering the enzyme-inducing properties of Metamizole, particularly its potential to induce CYP3A4, a pharmacokinetic drug–drug interaction with Biktarvy could be expected, especially given that bictegravir is partially metabolized through CYP3A4 and UGT1A1 pathways. Consequently, prolonged concomitant administration of metamizole may

reduce bictegravir plasma concentrations, potentially compromising antiretroviral efficacy.
Considering the relatively short duration of Metamizole co-administration (14 days), no immediate modification of antiretroviral therapy was considered necessary. However, the patient was advised to discontinue Metamizole and to replace it with another analgesic with a lower potential for drug–drug interactions. No HIV RNA monitoring was performed during the concomitant administration of Metamizole and Biktarvy; however, HIV RNA remained undetectable at routine follow-up assessment.

Clinical Outcome

No unwanted outcome

Editorial Comment

This case highlights a potentially overlooked interaction involving metamizole, a commonly used analgesic. Metamizole is a moderate CYP3A4 inducer and may reduce bictegravir exposure. No pharmacokinetic studies have directly assessed this combination, and coadministration is not recommended by the Liverpool HIV Drug Interactions resource, consistent with the precautions for moderate inducers in the Biktarvy prescribing information.
PBPK modelling predicted reductions in bictegravir Cmax, AUC and trough concentrations of approximately 23%, 38% and 56%, respectively. However, predicted trough concentrations remained above the protein-adjusted EC95, suggesting that reduced exposure may not necessarily compromise virological

suppression. These modelling results do not establish the clinical safety of the combination.
In this patient, metamizole was taken at 3 g/day for 14 consecutive days, making enzyme induction a relevant consideration. Nevertheless, without subsequent virological or pharmacokinetic data, the case illustrates a potential interaction rather than a demonstrated loss of antiretroviral efficacy.
An alternative analgesic should be considered, particularly when repeated or prolonged metamizole use is anticipated. If chronic coadministration cannot be avoided, plasma HIV-1 RNA should be monitored. The case also underscores the importance of asking specifically about self-administered medicines.

University of Liverpool Recommendation

- These drugs should not be coadministered

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