clinical cases DDIs

Date of report 29 Oct 2025

Reported case interaction between **Bictegravir** and **Paclitaxel**

Drugs suspected to be involved in the DDI

Victim
Bictegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2018

End date
Ongoing

Perpetrator
Paclitaxel

Daily Dose
125 (mg)

Dose adjustment performed
No

Administration Route
Intravenous

Start date
April 16, 2025

End date
Ongoing

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

Paclitaxel, Gemcitabina, Morphine, Bemiparin sodium, Metformin, Carvedilol Furosemide Empagliflozin, Omeprazole

Clinical case description

Gender

Male

Age

49

eGFR (mL/min)

>60

Liver function impairment

No

Description

A male patient with HIV infection diagnosed in 1993, virologically suppressed on bictegravir/emtricitabine/ tenofovir alafenamide (BIC/FTC/TAF), with no history of virological failure, was recently diagnosed with stage IV pancreatic adenocarcinoma with pulmonary, hepatic, and lymph node metastases. His weight was 63 kg. Chemotherapy with gemcitabine (1000 mg/m^2) and paclitaxel (125 mg/m^2) was initiated on April 1, 2025, administered on days 1, 8, and 15 of each 28-day cycle. The last dose was given on May 22, 2025. HIV viral load remained <20 copies/ mL on April 24 and August 11, 2025, following two cycles of chemotherapy containing paclitaxel.
In July 2025, due to disease progression, second-line chemotherapy with 5-fluorouracil (5-FU) monotherapy was

initiated. The patient did not respond and died three months later.

Clinical Outcome

No unwanted outcome

Editorial Comment

Although coadministration of B/F/TAF with paclitaxel has not been formally studied and the quality of evidence is very low, this combination is listed in orange on the Liverpool HIV drug interactions website as a potential interaction. Paclitaxel activates the pregnane X receptor (PXR) and could therefore induce CYP3A4 and UGT1A1, potentially reducing bictegravir concentrations. Monitoring the antiretroviral response is therefore recommended.

A recent case series of 25 patients receiving paclitaxel and integrase inhibitors—including six on bictegravir/emtricitabine/tenofovir alafenamide—showed that coadministration did not result in virological failure, supporting the use of paclitaxel with standard-dose oral integrase inhibitor–based triple regimens (Dahill K, et al., HIV Medicine, 2025, epub ahead of print). This potential interaction is not expected to affect tenofovir alafenamide (TAF) or emtricitabine (FTC).

Data on the coadministration of antiretrovirals and chemotherapy are particularly relevant, as non–AIDS-defining malignancies are becoming increasingly common among people living with HIV. Moreover, formal pharmacokinetic studies between different ARVs and cancer therapies are

currently not feasible. In this context, real-world evidence from individual cases provides valuable insights for clinical practice.

University of Liverpool Recommendation

⚠ Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required

For more information click here

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