clinical cases DDIs

Date of report 17 Mar 2026

Reported case interaction between **Etravirine** and **Dolutegravir**

Drugs suspected to be involved in the DDI

Perpetrator
Etravirine

Daily Dose
400 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2016

End date
Ongoing

Victim
Dolutegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2016

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Etravirine
Lamivudine
Dolutegravir

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

Belatacept 450 mg monthly, prednisone 4 mg daily, mycophenolate sodium 1080 mg daily

Clinical case description

Gender

Male

Age

53

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 53-year-old man with HIV infection diagnosed at the age of 23, with a history of virological failure, was receiving antiretroviral therapy consisting of dolutegravir 50 mg once daily, lamivudine 300 mg once daily, and etravirine 200 mg twice daily. This regimen had been initiated after a prior virological failure; however, detailed information regarding previous antiretroviral therapies, the number of prior regimens, and resistance testing results was not available in the clinical records at the time of follow-up initiation at our center.

In 2017, the patient underwent kidney transplantation and continued on the same antiretroviral regimen, in combination with immunosuppressive therapy including belatacept 450

mg monthly, prednisone 4 mg once daily, and mycophenolate sodium 1080 mg once daily.

Despite the potential drug–drug interaction between dolutegravir and etravirine, the patient has maintained sustained virological suppression without reported adverse effects. Continuation of the current regimen was therefore considered clinically appropriate. Doravirine was not available within the public health system in Argentina and therefore was not considered a viable alternative.

Etravirine is known to decrease dolutegravir plasma exposure through induction of UGT1A1 and CYP3A enzymes. Current guidelines recommend avoiding the combination of dolutegravir and etravirine unless co-administered with a ritonavir-boosted protease inhibitor, or alternatively, increasing dolutegravir to 50 mg twice daily in patients without integrase inhibitor resistance. Despite these recommendations, the regimen was maintained due to sustained virological suppression, absence of adverse effects, and limited therapeutic alternatives.

Clinical Outcome

No unwanted outcome

Editorial Comment

Given the increasing number of solid organ transplants in people living with HIV (PWH), this is an important case to report. In many countries, organ donation between PWH is also being implemented, further increasing the number of transplants.

Coadministration of etravirine without a boosted protease inhibitor decreases dolutegravir exposure, with reductions in AUC, Cmax, and Ctrough of 71%, 52%, and 88%, respectively, due to induction of UGT1A1 and CYP3A enzymes. Therefore, administration of dolutegravir with etravirine in the absence of boosted protease inhibitors is either not recommended (US prescribing information) or requires doubling dolutegravir dose (European Summary of Product Characteristics).
In this case, despite long-term coadministration of once-daily dolutegravir and etravirine without a boosted protease inhibitor, virological suppression was maintained. However, information on prior INSTI resistance was not available. The availability of new antiretroviral drugs might have facilitated the design of an optimal regimen with a lower potential for drug–drug interactions in this heavily treatment-experienced patient with limited therapeutic options.
Beyond HIV management, immunosuppressive therapy requires careful monitoring due to its narrow therapeutic window. Clinicians must balance maintaining virological suppression with avoiding transplant rejection and immunosuppressant-related toxicity.

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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