

Interaction Report**Report ID:****Date Produced:** 24 February 2021**Antiretroviral Treatment****Co-medications**

Dolutegravir (DTG)

Cyanocobalamin (Vitamin B12) [in multivitamins]
Folic acid [in multivitamins]

This report lists the summaries of potential interactions (i.e. "red", "amber" and "yellow" classifications) for the drugs in the table above.

Interactions with a "green" or "grey" classification (i.e. no clinically significant interaction or no clear data) have been checked and are listed at the end of this report, but summaries are not shown.

For full details of all interactions, see www.hiv-druginteractions.org.

Description of the interactions

Potential clinically significant interaction - likely to require additional monitoring, alteration of drug dosage or timing of administration (AMBER)

Dolutegravir (DTG) + Cyanocobalamin (Vitamin B12) [in multivitamins]

Coadministration has not been studied. Cyanocobalamin undergoes enterohepatic recycling and is excreted almost entirely in the urine. No interaction is expected with vitamin B12 when given as a single agent (i.e. not in a multivitamin preparation) or as an injection. However, vitamin B12 can be found in multivitamin preparations; simultaneous coadministration of a multivitamin preparation decreased dolutegravir exposure by ~33%. Dolutegravir should be administered 2 hours before or 6 hours after medications containing polyvalent cations, such as multivitamin preparations. Medicinal products that reduce dolutegravir exposure (e.g. multivitamins) should be avoided in the presence of integrase class resistance.

Dolutegravir (DTG) + Folic acid [in multivitamins]

Coadministration has not been studied. Folic acid is metabolized to dihydrofolic acid and tetrahydrofolic acid with the aid of reduced diphosphopyridine nucleotide and folate reductases. A pharmacokinetic interaction is unlikely with folic acid itself. However, folic acid may be administered in a multivitamin preparation which may also contain polyvalent cations. Simultaneous coadministration of a multivitamin preparation decreased dolutegravir exposure by ~33%. Dolutegravir should be administered 2 hours before or 6 hours after medications containing polyvalent cations, such as multivitamin preparations. Medicinal products that reduce dolutegravir exposure (e.g. multivitamins) should be avoided in the presence of integrase class resistance.