**Dolutegravir (DTG) Interactions** (also see drug package inserts)

<table>
<thead>
<tr>
<th>Class or Drug</th>
<th>Mechanism of Action</th>
<th>Clinical Comments</th>
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<tr>
<td>Dofetilide</td>
<td>DTG inhibits renal OCT2 and MATE1, and these transporters eliminate dofetilide.</td>
<td>Avoid concomitant use (may cause QT prolongation or torsade de pointes).</td>
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| Metformin     | DTG inhibits renal OCT2, MATE1, and MATE2, which are involved in elimination of metformin. | • Administer at lowest dose possible to achieve glycemic control; monitor for adverse effects.  
• Titrate metformin and do not exceed 1,000 mg when coadministered with DTG; monitor for adverse effects, including lactic acidosis. |
| Pioglitazone  | Pioglitazone is a weak inducer of CYP3A, and DTG is partially metabolized by this enzyme. | Avoid concomitant use because this may decrease DTG concentrations. |
| Divalent and trivalent cations (aluminum, magnesium, calcium, zinc, etc.) | DTG chelates with cations forming insoluble compounds that inactivate both drugs. | • Administer DTG 2 hours before or 6 hours after taking cations.  
• Calcium-containing supplements may be used concomitantly if taken with food. |
| Iron salts    | DTG chelates with cations, forming insoluble compounds that inactivate both drugs. | • Administer DTG 2 hours before or 6 hours after taking iron salts.  
• These drugs may be used concomitantly if taken with food.  
• Start at a lower dose of atenolol and adjust slowly until desired clinical effect is achieved.  
• If patient is already on atenolol but starting DTG, monitor for atenolol-related adverse events.  
• Reduce dose of atenolol if necessary or switch to another ARV agent. |
| Atenolol      | • Atenolol is eliminated via OCT2 and MATE1, which are inhibited by DTG. Coadministration may increase levels of atenolol. |  |
| Valproic Acid | • Coadministration may significantly decrease DTG concentrations.  
• Coadministration with strong inducers of CYP3A (phenytoin, phenobarbital, etc.) may decrease DTG concentrations. | • Coadministration is not recommended. If an alternative anticonvulsant cannot be used, monitor for safety and efficacy, including therapeutic drug monitoring.  
• Coadministration with strong inducers of CYP3A are not recommended because they may reduce concentrations of INSTIs. |

**Abbreviations:** ARV, antiretroviral; CYP, cytochrome P450; INSTI, integrase strand transfer inhibitor; MATE, multidrug and toxin extrusion; OCT, organic cation transporter.

**No significant interactions/no dose adjustments necessary:** Common oral antibiotics; anticoagulants; antiplatelet drugs; statins; acid-reducing agents; asthma and allergy medications; long-acting beta agonists; inhaled and injected corticosteroids; antidepressants; benzodiazepines; sleep medications; antipsychotics; non-opioid pain medications; opioid analgesics and tramadol; hormonal contraceptives; erectile and sexual dysfunction agents; tobacco and smoking cessation products; alcohol, disulfiram, and acamprosate; methadone, buprenorphine, naloxone, and naltrexone; immunosuppressants.

**References**


