### Bictegravir (BIC) 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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<tbody>
<tr>
<td>Antacids</td>
<td>BIC chelates with cations, forming insoluble compounds that inactivate both drugs.</td>
<td>Administer BIC 2 hours before or 6 hours after taking antacids containing polyvalent cations.</td>
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<tr>
<td>Other polyvalent cations</td>
<td>BIC chelates with cations, which can inactivate both drugs.</td>
<td><strong>Calcium- or iron-containing supplements:</strong> If taken with food, BIC can be taken at the same time. If not taken with food, these supplements should be administered as with antacids.</td>
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<td>Dofetilide [Feng and Varma 2016]</td>
<td>BIC 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 [Custodio, et al. 2017] | BIC inhibits renal OCT2 and MATE1, which are involved in elimination of metformin.  | • Drug interaction studies suggest that a prospective dose adjustment of metformin is not required when using BIC.  
• Administer at lowest dose possible to achieve glycemic control; monitor for adverse effects. |
| Atenolol            | • Atenolol is eliminated via OCT2 and MATE1, which are inhibited by BIC.            | • 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 or BIC, monitor for atenolol-related adverse events.  
• Reduce dose of atenolol if necessary or switch to another ARV agent. |
| Valproic acid       | Coadministration may significantly decrease BIC concentrations                      | • Coadministration is not recommended.  
• If an alternative anticonvulsant cannot be used, therapeutic drug monitoring may be warranted.  
• Coadministration with strong inducers of CYP3A are not recommended because they may reduce concentrations of INSTIs. |
| Cyclosporine        | May increase BIC concentrations to a modest degree via P-gp inhibition.             | Monitor for BIC-related adverse events.                                           |

**Abbreviations:** CYP, cytochrome P450; DTG, dolutegravir; INSTI, integrase strand transfer inhibitor; MATE, multidrug and toxin extrusion; OCT, organic cation transporter; P-gP, P-glycoprotein.  
**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.

**References**
