Resource: ART Drug-Drug Interactions

August 2024

Table 23: Antiplatelet Medications (also see drug package inserts)		
→ Adenosine phosphate receptor inhibitors, cilostazol, dipyridamole		
Class or Drug	**Mechanism of Action**	**Clinical Comments**
• NRTIs • Dolutegravir (DTG) • Bictegravir (BIC) • Cabotegravir (CAB) • Raltegravir (RAL) • Rilpivirine (RPV) • Doravirine (DOR)	No significant interactions are expected.	No dose adjustments are necessary.
Elvitegravir (EVG), boosted	• **Cilostazol** may be metabolized by CYP3A; COBI-boosted EVG can increase concentrations of this drug. • **Ticagrelor:** Strong CYP3A4 inhibitors may increase ticagrelor exposure. • **Clopidogrel:** Boosted EVG significantly decreases production of clopidogrel's active metabolite. • **Prasugrel:** Boosted EVG decreases prasugrel's active metabolite; however, adequate antiplatelet activity is maintained. • **Vorapaxar:** Increased vorapaxar levels are expected.	• **Cilostazol:** Monitor for antiplatelet effect. May be necessary to use alternative antiplatelet medication or alternative ARV. • **Ticagrelor:** To avoid increased bleeding risk, do not use ticagrelor with strong CYP3A inhibitors, particularly COBI and RTV. • **Clopidogrel, vorapaxar:** Do not coadminister. • **Prasugrel:** No dose adjustments are necessary.
Boosted PIs	• **Cilostazol** is metabolized by CYP3A; boosted PIs will increase concentrations of this drug. • **Dipyridamole:** RTV-boosted PIs may induce UGT enzymes, which are responsible for metabolism of dipyridamole (not seen with COBI). • **Ticagrelor:** Strong CYP3A4 inhibitors may increase ticagrelor exposure. • **Clopidogrel:** Boosted PIs may decrease production of clopidogrel's active metabolite. • **Prasugrel:** Boosted PIs may decrease prasugrel's active metabolite; however, adequate antiplatelet activity is maintained. • **Vorapaxar:** Increased vorapaxar levels are expected.	• **Cilostazol:** Monitor for antiplatelet effect; may be necessary to use alternative antiplatelet medication or alternative ARV. • **Dipyridamole:** Monitor for antiplatelet effect; use alternative ARV or boost with COBI if necessary. • **Ticagrelor:** To avoid increased bleeding risk, do not use ticagrelor with strong CYP3A inhibitors, particularly COBI and RTV. • **Clopidogrel, vorapaxar:** Do not coadminister. • **Prasugrel:** No dose adjustments are necessary.

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→ Adenosine phosphate receptor inhibitors, cilostazol, dipyridamole		
Class or Drug	**Mechanism of Action**	**Clinical Comments**
• Efavirenz (EFV) • Etravirine (ETR)	• **Cilostazol:** EFV and ETR may reduce cilostazol concentrations. • **Dipyridamole:** EFV and ETR may induce UGT enzymes, which are responsible for metabolism. • **Ticagrelor, clopidogrel:** EFV and ETR reduce ticagrelor concentrations and conversion of clopidogrel to its active metabolite. • **Vorapaxar:** When coadministered with ETR, vorapaxar levels expected to be reduced.	• **Cilostazol:** Monitor for antiplatelet effect; may be necessary to use alternative antiplatelet medication or alternative ARV. • **Dipyridamole:** Monitor for antiplatelet effect; use alternative ARV if necessary. • **Ticagrelor, clopidogrel:** Use with EFV or ETR may reduce antiplatelet effect; monitor closely for efficacy and use alternative ARV if necessary. • **Prasugrel:** When coadministered with ETR, no dose adjustments are necessary. • **Vorapaxar:** No data available.
Abbreviations: ARV, antiretroviral; COBI, cobicistat; CYP, cytochrome P450; NRTI, nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; RTV, ritonavir; UGT, uridine diphosphate glucuronosyltransferase.		