## Drug-Drug Interaction Guide: From HIV Prevention to Treatment





Table 39: Erectile and Sexual Dysfunction Agents (also see prescribing information)				
→ Sildenafil [a], vardenafil, tadalafil [b,c], and alprostadil for men; flibanserin [d] for women				
Class or Drug	Mechanism of Action	Clinical Comments		
<ul> <li>NRTIs</li> <li>Dolutegravir (DTG)</li> <li>Bictegravir (BIC)</li> <li>Cabotegravir (CAB)</li> <li>Raltegravir (RAL)</li> <li>Rilpivirine (RPV)</li> <li>Doravirine (DOR)</li> </ul>	No significant interactions reported.	No dose adjustments are necessary.		
Elvitegravir (EVG), boosted	PDE5 inhibitors: PDE5 inhibitors are substrates of CYP3A. Increased PDE5 inhibitor concentrations are expected.	<ul> <li>PDE5 inhibitors: Avoid concomitant use or use with lowest effective dose of PDE5 inhibitor (may increase risk of hypotension, syncope, priapism, and other adverse effects).</li> <li>Avanafil: No data available; do not coadminister.</li> <li>Sildenafil: Start with 25 mg every 48 hours; monitor for adverse effects.</li> <li>Tadalafil: Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects.</li> <li>Vardenafil: Administer 2.5 mg every 72 hours; monitor for adverse effects.</li> </ul>		
Atazanavir (ATV), unboosted	<b>Avanafil:</b> Increased avanafil concentration is expected (for other oral erectile dysfunction agents, see above).	Avanafil: Do not exceed 50 mg every 24 hours.		
Boosted PIs	<ul> <li>PDE5 inhibitors: Increased PDE5 inhibitor concentrations are expected.</li> <li>Flibanserin: Increased flibanserin concentrations are expected.</li> </ul>	<ul> <li>Sildenafil: Start with 25 mg every 48 hours; monitor for adverse effects.</li> <li>Tadalafil: Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects.</li> <li>Vardenafil: Administer 2.5 mg every 72 hours; monitor for adverse effects.</li> <li>Avanafil, flibanserin: Do not coadminister.</li> </ul>		
Efavirenz (EFV)     Etravirine (ETR)	<ul> <li>PDE5 inhibitors: EFV and ETR may reduce effectiveness of PDE5 inhibitors (sildenafil, vardenafil, and tadalafil).</li> <li>Flibanserin: EFV and ETR may reduce flibanserin concentrations.</li> </ul>	<ul> <li>PDE5 inhibitors: Monitor for clinical effect; if dose increase is needed to achieve desired clinical effect, titrate under medical supervision to lowest effective dose.</li> <li>Flibanserin: Do not coadminister.</li> </ul>		
Lenacapavir (LEN)	PDE5 inhibitors: Moderate inhibition of CYP3A4 and P-gP potentially increases PDE5 inhibitor levels.	PDE5 inhibitors, refer to prescribing information and guidance listed below:  • Avanafil: Do not coadminister.  • Sildenafil: Start with 25 mg every 48 hours; monitor for adverse effects.		



## Table 39: Erectile and Sexual Dysfunction Agents (also see prescribing information)

→ Sildenafil [a], vardenafil, tadalafil [b,c], and alprostadil for men; flibanserin [d] for women

Class or Drug	Mechanism of Action	Clinical Comments
		<ul> <li>Tadalafil: Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects.</li> <li>Vardenafil: Administer 2.5 mg every 72 hours; monitor for adverse effects.</li> </ul>

**Abbreviations:** COBI, cobicistat; CYP, cytochrome P450; NRTI, nucleoside reverse transcriptase inhibitor; PAH, pulmonary arterial hypertension; PDE5, phosphodiesterase type 5; P-gP, P-glycoprotein; PI, protease inhibitor.

## Notes:

- a. Sildenafil for treatment of PAH: Concurrent administration of all PIs and EVG/COBI is contraindicated.
- b. Tadalafil for treatment of PAH: When coadministered with any PIs or with EVG/COBI, start with 20 mg per day and increase to 40 mg per day based on tolerability.
- c. Tadalafil for treatment of benign prostatic hyperplasia: When coadministered with any PIs, the maximum recommended dose is 2.5 mg per day.
- d. Flibanserin should not be administered with alcohol in any circumstances.