Resource: ART Drug-Drug Interactions

August 2024

Table 39: Erectile and Sexual Dysfunction Agents (also see drug package inserts)		
→ Sildenafil [a], vardenafil, tadalafil [b,c], and alprostadil for men; flibanserin [d] for women		
Class or Drug	**Mechanism of Action**	**Clinical Comments**
• NRTIs • Dolutegravir (DTG) • Bictegravir (BIC) • Cabotegravir (CAB) • Raltegravir (RAL) • Rilpivirine (RPV) • Doravirine (DOR)	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.	• **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). • **Avanafil:** No data available; do not coadminister. • **Sildenafil:** Start with 25 mg every 48 hours; monitor for adverse effects. • **Tadalafil:** Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects. • **Vardenafil:** Administer 2.5 mg every 72 hours; monitor for adverse effects.
Atazanavir (ATV), unboosted	**Avanafil:** Increased avanafil concentration is expected (for other oral erectile dysfunction agents, see above).	**Avanafil:** Do not exceed 50 mg every 24 hours.
Boosted PIs	• **PDE5 inhibitors:** Increased PDE5 inhibitor concentrations are expected. • **Flibanserin:** Increased flibanserin concentrations are expected.	• **Sildenafil:** Start with 25 mg every 48 hours; monitor for adverse effects. • **Tadalafil:** Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects. • **Vardenafil:** Administer 2.5 mg every 72 hours; monitor for adverse effects. • **Avanafil, flibanserin:** Do not coadminister.
• Efavirenz (EFV) • Etravirine (ETR)	• **PDE5 inhibitors:** EFV and ETR may reduce effectiveness of PDE5 inhibitors (sildenafil, vardenafil, and tadalafil). • **Flibanserin:** EFV and ETR may reduce flibanserin concentrations.	• **PDE5 inhibitors:** Monitor for clinical effect; if dose increase is needed to achieve desired clinical effect, titrate under medical supervision to lowest effective dose. • **Flibanserin:** Do not coadminister.

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Lenacapavir (LEN)	**PDE5 inhibitors:** Moderate inhibition of CYP3A4 and P-gP potentially increases PDE5 inhibitor levels.	• **PDE5 inhibitors**, refer to package inserts and guidance listed below: • **Avanafil:** Do not coadminister. • **Sildenafil:** Start with 25 mg every 48 hours; monitor for adverse effects. • **Tadalafil:** Start with 5 mg and do not exceed 10 mg every 72 hours; monitor for adverse effects. • **Vardenafil:** Administer 2.5 mg every 72 hours; monitor for adverse effects.

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.