# Pulmonary Anti-Hypertensives Treatment Selector

*Charts revised July 2019. Full information available at www.hiv-druginteractions.org*



| | ATV/c | ATV/r | DRV/c | DRV/r | LPV/r | DOR | EFV | ETV | NVP | RPV | MVC | BIC/ F/TAF | DTG | EVG/c/ F/TAF | EVG/c/ F/TDF | RAL | ABC | FTC or 3TC | F/TAF | TDF | ZDV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Endothelin receptor antagonists** | | | | | | | | | | | | | | | | | | | | | |
| Ambrisentan | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Bosentan | ↑ [a] | ↑ [a] | ↑ [a] | ↑ [a] | ↑ [a] | ⇓ [b] | ↓ | ↓ | ↓ [c] | ⇓ | ⇓ | ⇓ [d] | ⇓ | ↑ [a] | ↑ [a] | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Macitentan | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | ↓ | ↓ | ↓ | ↔ | ↔ | ↔ | ↔ | ↑ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| **Phosphodiesterase 5 inhibitors** | | | | | | | | | | | | | | | | | | | | | |
| Sildenafil | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | ↓ | ↓ | ↓ | ↓3% | ↔ | ↔ | ↔ | ↑ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Tadalafil | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | ↓ | ↓ | ↓ | ↔ | ↔ | ↔ | ↔ | ↑ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| **Soluble guanylate cyclase stimulators** | | | | | | | | | | | | | | | | | | | | | |
| Riociguat | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | ↓ | ↓ | ↓ | ↔ | ↔ | ↔ | ↔ | ↑ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| **Prostacyclin analogues** | | | | | | | | | | | | | | | | | | | | | |
| Epoprostenol | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Iloprost | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Treprostinil | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↑ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| **IP Receptor Agonists** | | | | | | | | | | | | | | | | | | | | | |
| Selexipag | ↔ [e] | ↔ [e] | ↔ [e] | ↔ [e] | ↑120% [e] | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ [e] | ↔ [e] | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |

### Colour Legend

- No clinically significant interaction expected.
- These drugs should not be coadministered.
- Potential interaction which may require a dose adjustment or close monitoring.
- Potential interaction predicted to be of weak intensity. No *a priori* dosage adjustment is recommended.

### Text Legend

↑ Potential increased exposure of the pulmonary antihypertensive
↓ Potential decreased exposure of the pulmonary antihypertensive
↔ No significant effect
⇓ Potential decreased exposure of HIV drug

### Notes

a Coadministration is not recommended in the European labels, but the US labels suggest the following dose modifications:
When starting bosentan in individuals already on ritonavir or cobicistat containing regimens use a bosentan dose of 62.5 mg once daily or every other day.
Discontinue bosentan at least 36 h prior to starting a ritonavir or cobicistat containing regimen and restart after at least 10 days at 62.5 mg once daily or every other day.

b If coadministration cannot be avoided, doravirine should be administered 100 mg twice daily (based on the interaction study with rifabutin, another moderate inducer) and maintained at this dose for at least another two weeks following cessation of the corticosteroid.

c Potential additive liver toxicity.

d Coadministration may increase concentrations of bictegravir; no effect on emtricitabine or tenofovir alafenamide is expected.

e Exposure of selexipag increased, but exposure of active metabolite unchanged. This change is unlikely to be clinically relevant.

Abbreviations ATV atazanavir DRV darunavir LPV lopinavir /c cobicistat /r ritonavir DOR doravirine EFV efavirenz ETV etravirine NVP nevirapine RPV rilpivirine MVC maraviroc BIC bictegravir DTG dolutegravir EVG elvitegravir RAL raltegravir ABC Abacavir F or FTC emtricitabine 3TC lamivudine TAF tenofovir alafenamide TDF tenofovir-DF ZDV zidovudine