

# Anti-Hypertensive Treatment Selector

Charts reviewed January 2017. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

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	ATV/r	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	DTG	RAL	ABC	FTC	3TC	TDF	ZDV	E/C/F/TAF	E/C/F/TDF
<b>ACE Inhibitors</b>	Cilazapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Enalapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Lisinopril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Perindopril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Quinapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Ramipril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Trandolapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
<b>Angiotensin Antagonists</b>	Candesartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Irbesartan	↓	↓	↓	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓
	Losartan	↓ <sup>a</sup>	↓ <sup>a</sup>	↓ <sup>a</sup>	↑ <sup>b</sup>	↑ <sup>b</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sup>a</sup>	↓ <sup>a</sup>
	Olmesartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Telmisartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Valsartan	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
<b>β Blockers</b>	Atenolol	↔ <sup>d</sup>	↔	↔ <sup>d</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Bisoprolol	↑ <sup>d</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Carvedilol	↑ <sup>d</sup> ↓	↑↓	↑ <sup>d</sup> ↓	↑↓	↑↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑↑
	Metoprolol	↑ <sup>d</sup>	↑	↑ <sup>d</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Propranolol	↑ <sup>d</sup>	↑	↑ <sup>d</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
<b>Calcium Channel Agonists</b>	Amlodipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Diltiazem	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓69%	↓↑	↓	↑	↑	↔	↔	↔	↔	↔	↔	↑	↑↑
	Felodipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑↑
	Lacidipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Lercanidipine	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Nicardipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓↑	↓	↑	↑	↔	↔	↔	↔	↔	↔	↑	↑
	Nifedipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Nisoldipine	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Verapamil	↑ <sup>c</sup>	↑	↑ <sup>d</sup>	↓	↓↑	↓	↑	↑	↔	↔	↔	↔	↔	↑	↑	↑↑	
<b>Diuretics</b>	Amiloride	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Bendroflumethiazide	?	?	?	?	?	?	↔	↔	↔	↔	↔	↔	↔	↔	?	?
	Chlorthalidone	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Furosemide	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↔	↑
	Indapamide	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Torsemide	↓	↓	↓	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	
<b>Others</b>	Doxazosin	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Spironolactone	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔

- No clinically significant interaction expected.
- These drugs should not be coadministered.
- Potential interaction which may require a dosage adjustment or close monitoring.
- Potential interaction predicted to be of weak intensity (<2 fold ↑AUC or <50% ↓AUC). No *a priori* dosage adjustment is recommended.

**Text Legend**

- ↑ Potential increased exposure of the antihypertensive
- ↓ Potential decreased exposure of the antihypertensive
- ↔ No significant effect
- ↑↑ Potential increased exposure of HIV drug
- ↓↓ Potential decreased exposure of HIV drug
- a Concentrations of parent drug decreased but concentrations of active metabolite increased.
- b Concentrations of parent drug increased but concentrations of active metabolite decreased.
- c ECG monitoring recommended
- d Risk of PR interval prolongation

Numbers refer to increased or decreased AUC of the antihypertensive as observed in drug-drug interaction studies.

*Note: although some drug interactions are predicted to potentially require a dosage adjustment based on the drug's metabolic pathway, clinical experience with a particular antihypertensive and HIV drug may indicate that dosage adjustments are not an a priori requirement.*

Abbreviations ATV atazanavir DRV darunavir LPV lopinavir /r ritonavir EFV efavirenz ETV etravirine NVP nevirapine RPV rilpivirine MVC maraviroc DTG dolutegravir RAL raltegravir ABC abacavir FTC emtricitabine 3TC lamivudine TDF tenofovir disoproxil fumarate ZDV zidovudine E/C/F Elvitegravir/Cobicistat/FTC TAF tenofovir alafenamide

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