Contraceptives & HRT Treament Selector

Charts reviewed January 2017. Full information available at www.hiv-druginteractions.org

		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
Estrogens	Ethinylestradiol	↓19%[a]	↓44%[b]	↓42%[b]	↔[c]	↑22%	↓20%[b]	↑14%	↔	↑3%	↔	↔	↔	↔	↔	↔	↓25%[d]	↓25%[d]
	Estradiol	↓[e]	↓[e]	↓[e]	↓[e]	↓[e]	↓[e]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Progestins	Desogestrel	↑[f,g]	↑[f,g]	↑[f,g]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[f,g]	↑[f,g]
	Drospirenone	↑[g]	↑[g]	↑[g]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
	Dydrogesterone	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Etonogestrel	↑[g]	↑[g]	↑52%[g]	↓63%[i]	↓[i]	↓[i]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
	Gestodene	↑[g]	↑[g]	↑[g]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
	Levonorgestrel	↑[g]	↑[g]	↑[g]	↓[i]	↓[i]	↓[i]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
	Medroxy-progesterone (IM)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Medroxy-progesterone (oral)	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Norelgestromin	↑[j]	↑[j]	↑83%[j]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[j]	↑[j]
	Norethisterone (Norethindrone)	↓[h,k]	↓14%[h]	↓17%[h]	↓[h]	↓5%	↓19%[h]	↓11%	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
	Norgestimate	↑85%[g]	↑[g]	↑[g]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↑14%	↔	↔	↔	↔	↔	↑126%[g]	↑126%[g]
	Norgestrel	↑[g]	↑[g]	↑[g]	↓[h]	↓[h]	↓[h]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[g]	↑[g]
Other	Levonorgestrel (EC)	↑	↑	↑	↓58%[l]	↓[l]	↓[l]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Mifepristone	↑	↑	↑	↓	↓	↓	⇑	⇑	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Ulipristal	↑	↑	↑	↓[m]	↓[m]	↓[m]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑

Colour Legend

- 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 hormone
↓ Potential decreased exposure of the hormone
↔ No significant effect

⇑ Potential increased exposure of HIV drug
⇓ Potential decreased exposure of HIV drug

Numbers refer to decreased AUC of the hormone as observed in drug-drug interaction studies.

a Unboosted ATV increased ethinylestradiol AUC by 48%.
Use no more than 30 µg of ethinylestradiol if coadministered with unboosted ATV and at least 35 µg of ethinylestradiol if coadministered with ATV/r.
b Alternative or additional contraceptive measures are recommended or, if used for hormone replacement therapy, monitor for signs of estrogen deficiency.
c No effect on ethinylestradiol exposure, however, levels of coadministered progestin were markedly decreased.
A reliable method of barrier contraception must be used in addition to oral contraception.
d European SPC states a hormonal contraceptive should contain at least 30 µg ethinylestradiol.
e Monitor for signs of estrogen deficiency.
f Increased conversion to the active metabolite, etonogestrel.
g When used in a combination pill the estrogen component is reduced. In the absence of clinical data on the contraceptive efficacy, caution is recommended and additional contraceptive measures should be used.
h A reliable method of barrier contraception must be used in addition to oral contraception.
i The use of implants or vaginal rings is not recommended in women on long-term treatment with hepatic enzyme-inducing drugs.
j Norelgestromin is administered with ethinylestradiol as a transdermal patch. Ethinylestradiol exposure was reduced which may compromise contraceptive efficacy. Caution is recommended and additional contraceptive measures should be used.
k Unboosted ATV increased norethisterone AUC by 2.1-fold.
l Use 3 mg as a single dose for emergency contraception.
Of note, the doubling of the standard dose is outside the product license and there is limited evidence in relation to efficacy.
m May reduce the efficacy of the emergency contraceptive pill.

Notes

- *Transdermal application avoids first-pass metabolism, however, hepatic metabolism still occurs and therefore there is a risk of drug-drug interactions.*
- *Intrauterine administration releases the hormone (i.e. levonorgestrel) directly to the target organ before it is absorbed into the systemic circulation and therefore is less likely to be affected by ARVs.*

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