

Contraceptive Treatment Selector

Charts revised February 2018. Full information available at www.hiv-druginteractions.org

For personal use only. Not for distribution. For personal use only. Not for distribution. For personal use only. Not for distribution. For personal use only. Not for distribution.

	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
Ethinylestradiol	↓19% ^a	↓44% ^b	↓42% ^b	↔ ^c	↑22%	↓20%	↑14%	↔	↑3%	↔	↔	↔	↔	↔	↔	↓25% ^d	↓25% ^d
Progestins (COC)																	
Desogestrel	↑ ^{a,e}	↑ ^{e,f}	↑ ^{e,f}	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Drospirenone	↑ ^a	↑ ^f	↑ ^f	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Gestodene	↑ ^a	↑ ^f	↑ ^f	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Levonorgestrel	↑ ^a	↑ ^f	↑ ^f	↓ ^g	↓	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Norethisterone (Norethindrone)	↑ ^{a,i}	↓14% ^g	↓17% ^g	↓ ^g	↓5%	↓19%	↓11%	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Norgestimate	↑85% ^a	↑ ^f	↑ ^f	↓64% ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑126% ^h	↑126% ^h
Norgestrel	↑ ^a	↑ ^f	↑ ^f	↓ ^g	↓	↑29%	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Progestins (POP)																	
Desogestrel	↑	↑	↑	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Levonorgestrel	↑	↑	↑	↓ ^g	↓	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Norethisterone (Norethindrone)	↑50% ⁱ	↑50%	↑50%	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Progestins (Non-oral)																	
Etonogestrel (implant)	↑	↑	↑52%	↓63% ^k	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Etonogestrel (CVR)	↑ ^j	↑ ^j	↑ ^j	↓ ^k	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^j	↑ ^j
Levonorgestrel (IUD)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (implant)	↑	↑	↑	↓47% ^k	↓	↑14%	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Medroxy-progesterone (depot)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Norelgestromin (patch)	↑ ^l	↑ ^m	↑83% ^m	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ^h	↑ ^h
Norethisterone (Norethindrone) (depot)	↔	↔	↔	↓ ^g	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Other																	
Levonorgestrel (EC)	↑ ⁿ	↑ ⁿ	↑ ⁿ	↓58% ^o	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ⁿ	↑ ⁿ
Mifepristone	↑ ⁿ	↑ ⁿ	↑ ⁿ	↓	↓	↓	↑ ⁿ	↑ ⁿ	↔	↔	↔	↔	↔	↔	↔	↑ ⁿ	↑ ⁿ
Ulipristal	↑ ⁿ	↑ ⁿ	↑ ⁿ	↓ ^p	↓ ^p	↓ ^p	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑ ⁿ	↑ ⁿ

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 or unlikely to impair contraceptive efficacy. 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

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

- COC Combined oral contraceptive
- POP Progestin only contraceptive
- CVR Combined vaginal ring
- IUD Intra uterine device
- EC Emergency contraception

- 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.
- 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 Increased conversion to the active metabolite, etonogestrel.
- f When used in a COC 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.
- g A reliable method of barrier contraception must be used in addition to oral contraception.
- h When used in a COC, the estrogen component is reduced to a limited extent. The European SPC states a hormonal contraceptive should contain at least 30 µg ethinylestradiol.
- i Unboosted ATV increased norethisterone AUC by 2.1-fold.
- j Predicted to increase etonogestrel but to reduce ethinylestradiol concentrations. Since no dosage adjustment of ethinylestradiol is possible with the CVR, alternative forms of contraception should be used.
- k The use of implants or vaginal rings is not recommended in women on long-term treatment with hepatic enzyme-inducing drugs.
- l The efficacy of norelgestromin patch is unlikely to be impaired since the patch releases 33 µg ethinylestradiol/day which meets the recommendation in the product labels for atazanavir that the hormonal contraceptive should contain at least 30 µg ethinylestradiol in presence of atazanavir/ritonavir.
- m 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.
- n Any increase in exposure is unlikely to be clinically significant when used as a single dose for emergency contraception.
- o 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.
- p Not recommended. Non-hormonal emergency contraception (Cu-IUD) should be considered.

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

© Liverpool Drug Interactions Group, University of Liverpool, Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF.
We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.