

# Contraceptive Treatment Selector

Charts revised February 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

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	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	FTC or 3TC	F/TAF	TDF	ZDV
<b>Estrogens</b>																				
Ethinylestradiol	↔ <sup>a</sup>	↓19% <sup>b</sup>	↓30% <sup>c</sup>	↓44% <sup>c</sup>	↓42% <sup>c</sup>	↓2%	↔ <sup>d</sup>	↑22%	↓20%	↑14%	↔	↔	↑3%	↓25% <sup>e</sup>	↓25% <sup>e</sup>	↔	↔	↔	↔	↔
<b>Progestins (Combined Oral Contraceptive, COC)</b>																				
Desogestrel	↑ <sup>a,f</sup>	↑ <sup>b,f</sup>	↑ <sup>c,f</sup>	↑ <sup>f,g</sup>	↑ <sup>f,g</sup>	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
Drospirenone	↑130% <sup>j</sup>	↑ <sup>b</sup>	↑60% <sup>c</sup>	↑ <sup>g</sup>	↑ <sup>g</sup>	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
Gestodene	↑ <sup>a</sup>	↑ <sup>b</sup>	↑ <sup>c</sup>	↑ <sup>g</sup>	↑ <sup>g</sup>	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
Levonorgestrel	↓8% <sup>a</sup>	↑ <sup>b</sup>	↑ <sup>c</sup>	↑ <sup>g</sup>	↑ <sup>g</sup>	↑21%	↓ <sup>h</sup>	↓	↑	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
Norethisterone (Norethindrone)	↑ <sup>a</sup>	↑ <sup>b,k</sup>	↑ <sup>c</sup>	↓14% <sup>h</sup>	↓17% <sup>h</sup>	↔	↓ <sup>h</sup>	↓5%	↓19%	↓11%	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
Norgestimate	↑ <sup>a</sup>	↑85% <sup>b</sup>	↑ <sup>c</sup>	↑ <sup>g</sup>	↑ <sup>g</sup>	↔	↓64% <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑126% <sup>i</sup>	↑126% <sup>i</sup>	↑14%	↔	↔	↔	↔
Norgestrel	↑ <sup>a</sup>	↑ <sup>b</sup>	↑ <sup>c</sup>	↑ <sup>g</sup>	↑ <sup>g</sup>	↔	↓ <sup>h</sup>	↓	↑29%	↔	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
<b>Progestins (Progestin only pill, POP)</b>																				
Desogestrel	↑ <sup>f</sup>	↑ <sup>f</sup>	↑ <sup>f</sup>	↑ <sup>f</sup>	↑	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
Levonorgestrel	↑	↑	↑	↑	↑	↔	↓ <sup>h</sup>	↓	↑	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
Norethisterone (Norethindrone)	↔ <sup>c</sup>	↑50% <sup>k</sup>	↔ <sup>c</sup>	↑50%	↑50%	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
<b>Progestins (Non-oral)</b>																				
Etonogestrel (implant)	↑	↑	↑	↑	↑52%	↔	↓63% <sup>l</sup>	↓	↓	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
Etonogestrel (CVR)	↑	↑~80% <sup>m</sup>	↑	↑ <sup>m</sup>	↑ <sup>m</sup>	↔	↓~80% <sup>l</sup>	↓	↓	↔	↔	↔	↔	↑ <sup>m</sup>	↑ <sup>m</sup>	↔	↔	↔	↔	↔
Levonorgestrel (implant)	↑	↑	↑	↑	↑	↔	↓47% <sup>l</sup>	↓	↑14%	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
Levonorgestrel (IUD)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Medroxy-progesterone (depot)	↔	↔	↔	↔	↑70%	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Norelgestromin (patch)	↑ <sup>c</sup>	↑ <sup>n</sup>	↑ <sup>c</sup>	↑ <sup>o</sup>	↑83% <sup>o</sup>	↔	↓ <sup>h</sup>	↓	↓	↔	↔	↔	↔	↑ <sup>i</sup>	↑ <sup>i</sup>	↔	↔	↔	↔	↔
Norethisterone (Norethindrone) (depot)	↔	↔	↔	↔	↔	↔	↓ <sup>h</sup>	↓	↓	↓	↔	↔	↔	↑	↑	↔	↔	↔	↔	↔
<b>Other</b>																				
Levonorgestrel (EC)	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↓58% <sup>q</sup>	↔	↔	↔	↔	↔	↔	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↔	↔	↔	↔
Mifepristone	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↓	↓	↓	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↔	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↔	↔	↔	↔
Ulipristal	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↓ <sup>r</sup>	↓ <sup>r</sup>	↓ <sup>r</sup>	↔	↔	↔	↔	↑ <sup>p</sup>	↑ <sup>p</sup>	↔	↔	↔	↔	↔

**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 <i>a priori</i> dosage adjustment is recommended.

**Text Legend**

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

Numbers refer to increase or decrease in AUC as observed in drug-drug interaction studies.

- CVR Combined vaginal ring
- IUD Intra uterine device
- EC Emergency contraception

**Notes**

- a Product labels for atazanavir/cobicistat advise coadministration with hormonal contraceptives should be avoided and an alternate (non-hormonal) reliable method of contraception is recommended.
- b 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.
- c Alternative or additional contraceptive measures are recommended.
- d Depending on the contraceptive method, ethinylestradiol can be either unchanged (COC) or decreased (CVR). Levels of coadministered progestin were markedly decreased. A reliable method of barrier contraception must be used in addition to oral contraception.
- e European SPC states a hormonal contraceptive should contain at least 30 µg ethinylestradiol.
- f Increased conversion to the active metabolite, etonogestrel.
- g 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.
- h A reliable method of barrier contraception must be used in addition to oral contraception.
- i 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.
- j Coadministration is contraindicated in the US product label due to the potential for hyperkalaemia. The European product label recommends clinical monitoring for hyperkalaemia.
- k Unboosted ATV increased norethisterone AUC by 2.1-fold.
- l The use of implants or vaginal rings is not recommended in women on long-term treatment with hepatic enzyme-inducing drugs.
- m 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.
- n 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.
- o 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.
- p Any increase in exposure is unlikely to be clinically significant when used as a single dose.
- q 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.
- r Not recommended. Non-hormonal emergency contraception (Cu-IUD) should be considered.