

# Cancer Therapies Treatment Selector

Charts reviewed October 2018. Full information available at [www.hiv-druginteractions.org](http://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
<b>Anti-tumour ABT</b>	Bleomycin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Daunorubicin	↔ <sup>a</sup>	↔	↔ <sup>a</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔	↔
	Doxorubicin	↔ <sup>a</sup>	↔	↔ <sup>a</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔	↔
	Epirubicin	↓ <sup>a</sup>	↓	↓ <sup>a</sup>	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔	↔
<b>Alkylating Agents</b>	Carboplatin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>cj</sup>	↔ <sup>b</sup>	↔ <sup>cj</sup>
	Chlorambucil	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Cisplatin	↑	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>cj</sup>	↔ <sup>b</sup>	↔ <sup>cj</sup>
	Cyclophosphamide	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>f</sup>	↓ <sup>f</sup>	↓ <sup>f</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↓ <sup>d</sup>
	Dacarbazine	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>d</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔
	Dactinomycin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔
	Ifosfamide	↑ <sup>e</sup>	↑ <sup>e</sup>	↑ <sup>e</sup>	↓ <sup>f</sup>	↓ <sup>f</sup>	↓ <sup>f</sup>	↓	↓	↔	↔	↔	↔	↔	↔	↔ <sup>c</sup>	↔ <sup>b</sup>
	Oxaliplatin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>c</sup>	↔ <sup>b</sup>
	Procarbazine	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>d</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
<b>Antimetabolite Agents</b>	Capecitabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔	↔
	Cytarabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔	↔
	Fluorouracil	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Gemcitabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔
	Mercaptopurine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↔
	Methotrexate	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>g</sup>	↔ <sup>cg</sup>	↔ <sup>bg</sup>
<b>Plant Alkaloids</b>	Docetaxel	↑	↑	↑	↓	↓	↓	↑?	↑?	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Etoposide	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Irinotecan	↑ <sup>h</sup>	↑ <sup>h</sup>	↑ <sup>h</sup>	↓ <sup>i</sup>	↓ <sup>i</sup>	↓ <sup>i</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑ <sup>h</sup>
	Paclitaxel	↑	↑	↑	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Vinblastine	↑	↑	↑	↓	↓	↓	↓	↓	↓	↓	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Vincristine	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑
<b>Tyrosine Kinase Inhibitors</b>	Dasatinib	↑*	↑	↑*	↓	↓	↓	↑ <sup>+</sup>	↑	↔	↔	↔	↔	↔	↔	↔	↑
	Erlotinib	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑
	Gefitinib	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑
	Imatinib	↑	↑	↑	↓	↓	↓	↑	↑	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Lapatinib	↑*	↑ <sup>a</sup>	↑*	↓	↓	↓	↑ <sup>+</sup>	↑	↔	↔	↔	↔	↔	↔	↔	↑ <sup>a</sup>
	Nilotinib	↑*	↑ <sup>a</sup>	↑*	↓	↓	↓	↑ <sup>+</sup>	↑	↔	↔	↔	↔	↔	↔	↔	↑ <sup>a</sup>
	Pazopanib	↑*	↑ <sup>a</sup>	↑*	↓	↓	↓	↑ <sup>+</sup>	↑	↔	↔	↔	↔	↔	↔	↔	↑ <sup>a</sup>
	Sunitinib	↑*	↑	↑*	↓	↓	↓	↔ <sup>+</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↑
<b>Others</b>	Bortezomib	↑ <sup>a</sup>	↑	↑ <sup>a</sup>	↓	↓	↓	↔ <sup>a</sup>	↔	↔	↔	↔	↔	↔	↔	↔ <sup>b</sup>	↑
	Everolimus	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑
	Sorafenib	↑*	↔	↑*	↓	↓	↓	↔ <sup>a</sup>	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Tamoxifen	↑ <sup>e</sup>	↑ <sup>e</sup>	↑ <sup>e</sup>	↓	↓	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↑ <sup>e</sup>
	Temsirolimus	↑	↑	↑	↓ <sup>d</sup>	↓ <sup>d</sup>	↓ <sup>d</sup>	↑	↑	↔	↔	↔	↔	↔	↔	↔	↑

**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. No *a priori* dosage adjustment is recommended.

**Text Legend**

- ↑ Potential increased exposure of the cytostatic
- ↓ Potential decreased exposure of the cytostatic
- ↔ No significant effect
- ↑↑ Potential increased exposure of HIV drug
- ↓↓ Potential decreased exposure of HIV drug

ABT = antibiotic

- a Cytostatic agent may induce cardiac toxicity including arrhythmias and/or non-specific ECG abnormalities; caution is warranted in presence of other drugs with potential effects on PR and QT intervals.
- \* Both drugs can potentially prolong the QT interval. Coadministration with such drugs requires caution with ATV and LPV.
- + Rilpivirine's manufacturer recommends caution when coadministering with another drug susceptible to prolong QT interval as supratherapeutic doses of rilpivirine (75 and 300 mg once daily) were shown to prolong QT interval.
- b Potential additive hematological toxicity
- c Potential additive nephrotoxicity
- d Concentrations of parent drug decreased but concentrations of the active metabolite increased.
- e Concentrations of parent drug increased but concentrations of the active metabolite decreased which may result in decreased efficacy.
- f Concentrations of parent drug decreased but concentrations of the active metabolite and toxic metabolite increased.
- g Use in HIV patients is contraindicated by some manufacturers.
- h Concentrations of SN-38 (active metabolite) increased.
- i Conversion of SN-38 to inactive metabolite increased.
- j The cytostatic agent may impair renal function: monitor the creatinine clearance and adjust the NRTI dosage accordingly (this may require a change from a single tablet regimen).
- k The oxaliplatin effect may be potentially antagonised due to its reduced entry into the tumoral cell arising from the inhibition of OCT2.

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