www.hiv-druginteractions.org

Cytotoxic Treatment Selector

Charts revised February 2018. 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
Anti-tumour ABT	Bleomycin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Daunorubicin	↔[a]	↔	↔[a]	↔	↔	↔	↔[a]	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Doxorubicin	↔[a]	↔	↔[a]	↔	↔	↔	↔[a]	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Epirubicin	↓[a]	↓	↓[a]	↑	↔	↔	↔[a]	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
Alkylating Agents	Carboplatin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[j]	↔	↔[cj]	↔[b]	↔	↔[cj]
	Chlorambucil	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Cisplatin	↑	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↑[j]	↑[j]	↔[cj]	↔[b]	↑[j]	↔[cj]
	Cyclophosphamide	↓[d]	↓[d]	↓[d]	↓[f]	↓[f]	↓[f]	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↓[d]	↓[d]
	Dacarbazine	↓[d]	↓[d]	↓[d]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↔[b]	↔	↔[c]
	Dactinomycin	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Ifosfamide	↑[e]	↑[e]	↑[e]	↓[f]	↓[f]	↓[f]	⇓	⇓	↔	↔	↔	↔	↔	↔[c]	↔[b]	↑[c,e]	↑[c,e]
	Oxaliplatin	↔	↔	↔	↔	↔	↔	↔	↔	↔[k]	↔	↔	↔	↑	↔[c]	↔[b]	↔	↔[c]
	Procarbazine	↓[d]	↓[d]	↓[d]	↓[d]	↔	↓[d]	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
Antimetabolite Agents	Capecitabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑?	↑?	↑?	↔[b]	↑?	↑?
	Cytarabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Fluorouracil	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑?	↑?	↑?	↔[b]	↑?	↑?
	Gemcitabine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Mercaptopurine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↔	↔
	Methotrexate	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↔[g]	↑[cg]	↔[bg]	↔[g]	↑[cg]
Plant Alkaloids	Docetaxel	↑	↑	↑	↓	↓	↓	↑?	↑?	↔	↔	↔	↔	↔	↔	↔[b]	↑	↑
	Etoposide	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↑	↑
	Irinotecan	↑[h]	↑[h]	↑[h]	↓[i]	↓[i]	↓[i]	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↑[h]	↑[h]
	Paclitaxel	↑	↑	↑	↑	↓⇓	↔	⇓	⇓	⇓	⇓	↔	↔	↔	↔	↔[b]	↑	↑
	Vinblastine	↑	↑	↑	↓	↓⇓	↓	⇓	⇓	⇓	⇓	↔	↔	↔	↔	↔[b]	↑	↑
	Vincristine	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔[b]	↑	↑
Tyrosine Kinase Inhibitors	Dasatinib	↑*	↑	↑*	↓	↓	↓	⇑+	⇑	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Erlotinib	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Gefitinib	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Imatinib	↑	↑	↑	↓⇑	↓⇑	↓⇑	⇑	⇑	↔	↔	↔	↔	↔	↔	↔[b]	↑	↑
	Lapatinib	↑*	↑[a]	↑*	↓	↓	↓	⇑+	⇑	↔	↔	↔	↔	↔	↔	↔	↑[a]	↑[a]
	Nilotinib	↑*	↑[a]	↑*	↓⇑	↓⇑	↓⇑	⇑+	⇑	↔	↔	↔	↔	↔	↔	↔	↑[a]	↑[a]
	Pazopanib	↑*	↑[a]	↑*	↓	↓	↓	⇑+	⇑	↔	↔	↔	↔	↔	↔	↔	↑[a]	↑[a]
	Sunitinib	↑*	↑	↑*	↓	↓	↓	↔+	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Others	Bortezomib	↑[a]	↑	↑[a]	↓	↓	↓	↔[a]	↔	↔	↔	↔	↔	↔	↔	↔[b]	↑	↑
	Everolimus	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Sorafenib	↑*	↔	↑*	↓	↓	↓	↔[a]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Tamoxifen	↑[e]	↑[e]	↑[e]	↓	↓⇓	↓	⇓	⇓	↔	↔	↔	↔	↔	↔	↔	↑[e]	↑[e]
	Temsirolimus	↑	↑	↑	↓[d]	↓[d]	↓[d]	⇑	⇑	↔	↔	↔	↔	↔	↔	↔	↑	↑

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 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