UNIVERSITY OF LIVERPOOL

Anti-malarial Treatment Selector

Charts revised October 2021. Full information available at www.hiv-druginteractions.org

	ATV/c	ATV/r	DRV/c	DRV/r	LPV/r	DOR	EFV	ETV	NVP	RPV oral	FTR	MVC	BIC/ F/TAF	CAB oral	CAB/ RPV	DTG	EVG/c/ F/TAF	EVG/c/ F/TDF	RAL	FTC/ TAF	FTC/ TDF	TDF
First line and Second line Drugs																						
Amodiaquine	↑	↑	↔	↑	↑	↔	↑a	↓?	↓29% a	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Artemisinin	↑	↑	↑	↑	↑	⇓	↓	↓⇓	↓⇓	⇓	⇓	⇓	⇓b	↔	⇓	↔	↑	↑	↔	↔	↔	↔
Atovaquone	↔	↓10%	↔	↓c	↓74% c	↔	↓75% c	↓c ⇑55%	↓c	↔	↔	↔	↔	↔		↔	↔	↔	↔	↔	↔	↔
Chloroquine	↔d♥	↔d♥	↔d	↔d	↔d♥	↔	↔e	↔f	↔f	↔♥g	↔♥	↔	↔	↔	↔♥g	↔	↔d	↔d	↔	↔	↔	↔
Clindamycin	↑	↑	↑	↑	↑	↔	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↑	↑	↔	↔	↔	↔
Doxycycline	↔	↔	↔	↔	↔	↔	↓?	↓?	↓?	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Halofantrine	↑♥	↑♥	↑	↑	↑♥	↔	↓	↓	↓	↔♥	↔♥	↔	↔	↔	↔♥	↔	↑	↑	↔	↔	↔	↔
Hydroxychloroquine	↑♥	↑♥	↑	↑	↑♥	↔	↔e	↓	↓	↔♥	↔♥	↔	↔	↔	↔♥	↔	↑	↑	↔	↔	↔	↔
Lumefantrine	↑♥	↑♥	↑	↑175%	↑382% ♥	↔	↓~40%	↓13%	↓ ⇓46%	↔♥	↔♥	↔	↔	↔	↔♥	↑10%	↑	↑	↔	↔	↔	↔
Mefloquine	↑♥	↑♥	↑	↑	↓28%♥ ⇓22%	↔	↓	↓	↓	↔♥	↔♥	↔	↔	↔	↔♥	↔	↑	↑	↔	↔	↔	↔
Piperaquine	↑♥	↑♥	↑g	↑g	↑♥	⇑	↓	↓	↓	⇑♥	↔♥	⇓	⇓b	↔	↔♥	↔	↑g	↑g	↔	↔	↔	↔
Primaquine	↔♥	↔♥	↔	↔	↔♥	↔	↔h	↔h	↔h	↔♥	↔♥	↔	↔	↔	↔♥	↔	↔	↔	↔	↔	↔	↔
Proguanil	↔	↓41% c	↔	↓c	↓38% c	↔	↓44% c	↓⇑c	↓c	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Pyrimethamine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	⇑i	↔	↔	↔	⇑i	⇑i	↔	⇑i	⇑i	↔
Quinine	↑j♥	↑j♥	↑j	↑j	↓56% ♥	↔	↓	↓	↓	↔♥	↔♥	⇑	↔	↔	↔♥	↔	↑j	↑j	↔	↔	↔	↔
Sulfadoxine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	⇑k	↔	↔	↔	⇑k	⇑k	↔	⇑k	⇑k	↔

Interactions with CAB/RPV long acting injections
Pharmacokinetic interactions shown are mostly with RPV.
QT interactions shown are with RPV.

Interactions with Ibalizumab
None

Interactions with Abacavir (ABC), Lamivudine (3TC) or Zidovudine (ZDV)
ABC: No clinically relevant interactions expected.
3TC: Increased 3TC exposure with pyrimethamine, sulfadoxine.
ZDV: Potential additive haematological toxicity with amodiaquine, atovaquone, primaquine, pyrimethamine, sulfadoxine.

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 *a priori* dosage adjustment is recommended.

Text Legend

↑ Potential increased exposure of the anti-malarial drug
↓ Potential decreased exposure of the anti-malarial drug
↔ No significant effect
⇑ Potential increased exposure of HIV drug
⇓ Potential decreased exposure of HIV drug

♥ One or both drugs may cause QT and/or PR prolongation.
ECG monitoring is advised if coadministered with atazanavir or lopinavir.
Rilpivirine and fostemsavir were shown to prolong the QT interval at supratherapeutic doses. Caution is advised with rilpivirine. ECG monitoring is advised with fostemsavir and drugs with a known QT prolongation risk.

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

Notes

a Liver toxicity
b No effect on FTC or TAF is expected, but bictegravir concentrations may decrease.
c Take with a high fat meal. Consider dose increase.
d Chloroquine may increase, but to a moderate extent due to the multiple elimination pathways. No dosage adjustment is recommended but monitor toxicity.
e Chloroquine/hydroxychloroquine may increase (inhibition of CYP2C8) or decrease (induction of CYP3A4). No dosage adjustment is recommended but monitor toxicity and efficacy.
f Chloroquine may decrease, but to a moderate extent due to the multiple elimination pathways. No dosage adjustment is recommended but monitor efficacy.
g ECG monitoring should be considered.
h Increase of haemotoxic metabolites
i FTC exposure may increase; no a priori dosage adjustment is recommended in patients with normal renal function.
j An increase in exposure would be expected based on quinine metabolism, however, two interaction studies with LPV/r have shown a decrease in quinine exposure. It is recommended to monitor for side effects and also efficacy.
k Sulfadoxine is rarely used alone, but is usually given in combination with pyrimethamine. Pyrimethamine may increase FTC exposure, but no a priori dosage adjustment is recommended in patients with normal renal function.

Abbreviations: ATV atazanavir; DRV darunavir; LPV lopinavir; /c cobicistat; /r ritonavir; DOR doravirine; EFV efavirenz; ETV etravirine; NVP nevirapine; RPV rilpivirine; FTR Fostemsavir; MVC maraviroc; BIC bictegravir; CAB Cabotegravir; DTG dolutegravir; EVG elvitegravir; RAL raltegravir; F or FTC emtricitabine; TAF tenofovir alafenamide; TDF tenofovir-DF