PatientID: HIVDR-1729-23

Sebuttemba 27, 2023

Color Code

HR: High-Level Resistance
PLR: Potential Low-Level Resistance
LR: Low-Level Resistance
IR: Intermediate Resistance
S: Susceptible

DRUG.CLASS	DRUG	RESISTANCE.PROFILE	DRMS.above.20.percent.prevalence
PI	ATV	**S**	
	DRV	**S**	
	FPV	**S**	
	IDV	**S**	
	LPV	**S**	
	NFV	**S**	
	SQV	**S**	
	TPV	**S**	
NRTI	ABC	**HR**	K65R;M184V
	AZT	**S**	
	D4T	**IR**	
	DDI	**HR**	
	FTC	**HR**	
	LMV	**HR**	
	TDF	**IR**	
NNRTI	DOR	**HR**	Y181YC;K103S;G190A
	EFV	**HR**	
	ETR	**HR**	
	NVP	**HR**	
	RPV	**HR**	
INSTI	BIC	**HR**	E138K;G140A;Q148K
	CAB	**HR**	
	DTG	**HR**	
	EVG	**HR**	
	RAL	**HR**	

Appendix

Drug abbreviations in full

DRUG.CLASS	ABBREVIATION	DRUG.NAME
PI	ATV	Atazanavir
	DRV	Darunavir
	FPV	Fosamprenavir
	IDV	Indinavir
	LPV	Lopinavir
	NFV	Nelfinavir
	SQV	Saquinavir
	TPV	Tipranavir
NRTI	ABC	Abacavir
	AZT	Azidothymidine
	DFT	Stavudine
	DDI	Didanosine
	FTC	Emtricitabine
	LMV	Lamivudine
	TDF	Tenofovir
NNRTI	DOR	Doravirine
	EFV	Efavirenz
	ETR	Etravirine
	NVP	Nevirapine
	RPV	Rilpivirine
INSTI	BIC	Bictegravir
	CAB	Cabotegravir
	DTG	Dolutegravir
	EVG	Elvitegravir
	RAL	Raltegravir

Comments

DRUG.CLASS	COMMENTS
PI	
NRTI	K65R confers intermediate reductions in susceptibility to TDF, ABC, and 3TC/FTC. It increases AZT susceptibility. In NRTI-experienced, INSTI-naive patients with K65R, TDF+3TC+DTG is usually highly effective and more effective than AZT/3TC/DTG. However, in patients receiving TDF+3TC+DTG, there is a risk of emergent DTG resistance that does not arise in NRTI-naive patients receiving TDF+3TC+DTG.
	M184V/I cause high-level in vitro resistance to 3TC and FTC and low/intermediate resistance to ABC (3-fold reduced susceptibility). M184V/I are not contraindications to continued treatment with 3TC or FTC because they increase susceptibility to AZT and TDF and are associated with clinically significant reductions in HIV-1 replication.
	G190A is a non-polymorphic mutation that causes high-level resistance to NVP and intermediate resistance to EFV. It does not significantly reduce susceptibility to RPV, ETR, or DOR.
	K103S is a non-polymorphic mutation that causes high-level reductions in NVP susceptibility but intermediate reductions in EFV susceptibility. Because K103S is a 2-bp change from the wildtype K and a 1-bp change from K103N, persons with K103S may be likely to have once had K103N.

NNRTI	
	Y181C is a non-polymorphic mutation selected in persons receiving NVP, ETR and RPV. It confers high-level resistance to NVP, intermediate resistance to ETR and RPV, and low-level resistance to EFV. It does not significantly reduce DOR susceptibility.
INSTI	
	E138K/A/T are common nonpolymorphic accessory resistance mutations selected in patients receiving RAL, EVG, CAB, and DTG. Alone they do not reduce INSTI susceptibility. However, they contribute to reduced susceptibility in combination with other mutations particularly those at position 148.
	G140S/A/C are non-polymorphic mutations that usually occur with Q148 mutations. Alone, they have minimal effects on INSTI susceptibility. However, in combination with Q148 mutations they are associated with high-level resistance to RAL and EVG and intermediate reductions in DTG and BIC susceptibility.
	Q148H/K/R are nonpolymorphic mutations reported in persons receiving RAL, EVG, CAB, and DTG. They nearly always occur in combination with G140A/S or E138K. In this setting they are associated with near complete resistance to RAL and EVG, high-levels of reduction in CAB susceptibility, and low-to-intermediate reductions in DTG and BIC susceptibility.