PatientID: HIVDR-1755-23

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	**IR**	M41L;F77L;M184V;T215F;V75M
	AZT	**HR**	
	D4T	**HR**	
	DDI	**HR**	
	FTC	**HR**	
	LMV	**HR**	
	TDF	**LR**	
NNRTI	DOR	**HR**	Y188L;K103N;E138Q
	EFV	**HR**	
	ETR	**LR**	
	NVP	**HR**	
	RPV	**HR**	
INSTI	BIC	**HR**	S147SG;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	F77L usually occurs in combination with the multi-NRTI resistance mutation Q151M. When it occurs alone, its clinical significance is uncertain.
	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.
	M41L is a TAM that usually occurs with T215Y. In combination, M41L plus T215Y confer intermediate / high-level resistance to AZT and d4T and contribute to reduced ddI, ABC and TDF susceptibility.
	T215Y/F are TAMs that causes intermediate/high-level resistance to AZT and potentially low-level resistance to ABC and TDF.
	V75T/M/A/S are nonpolymorphic accessory NRTI-selected mutations. They appear to have minimal phenotypic effects on AZT, ABC, and TDF.
	E138Q/G are non-polymorphic accessory mutations selected by ETR occasionally NVP and EFV. They cause low-level reductions in susceptibility to NVP, RPV, and ETR.
	K103N is a non-polymorphic mutation that confers high-level reductions in NVP and EFV susceptibility. It is the most commonly transmitted DRM.

NNRTI	
	Y188L is a non-polymorphic mutation that confers high-level resistance to NVP, EFV, RPV, and DOR, and potentially low-level resistance to ETR.
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.
	S147G is a nonpolymorphic mutation selected in patients receiving RAL, EVG, and DTG. Alone it reduces EVG susceptibility about 5-fold.
	T97A is a polymorphic INSTI-selected mutation that, depending on subtype, occurs in 1% to 5% of viruses from untreated persons. Alone, it has minimal effects on INSTI susceptibility but in combination with other major resistance mutations, it synergistically reduces susceptibility to each of the INSTIs.