A

Nucleoside Reverse Transcriptase Inhibitors (NRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
Lamivudine (3TC)		0	1		S - Susceptible
Abacavir (ABC)		0	1		S - Susceptible
Zidovudine (AZT)		0	1		S - Susceptible
Stavudine (D4T)		0	1		S - Susceptible
Didanosine (DDI)		0	1		S - Susceptible
Emtricitabine (FTC)		0	1		S - Susceptible
Tenofovir DF (TDF)		0	1		S - Susceptible

Non-Nucleoside Reverse transcriptase Inhibitors (NNRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
Efavirenz (EFV)		0	1		S - Susceptible
Etravirine TMC125 (ETR)		0	1		S - Susceptible
Nevirapine (NVP)		0	1		S - Susceptible
Rilpivirine (RPV)		0	1		S - Susceptible

Protease Inhibitors (PI)

Drug	Mutations list	Score	Range	Color	Interpretation
Atazanavir (ATV/r)		0	1		S - Susceptible
Darunavir (DRV/r)		0	1		S - Susceptible
Fosamprenavir (FPV/r)		0	1		S - Susceptible
Indinavir (IDV/r)		0	1		S - Susceptible
Lopinavir (LPV/r)		0	1		S - Susceptible
Nelfinavir (NFV)		0	1		S - Susceptible
Saquinavir (SQV/r)		0	1		S - Susceptible
Tipranavir (TPV/r)		0	1		S - Susceptible

Integrase inhibitors (INI)

Drug	Mutations list	Score	Range	Color	Interpretation
Dolutegravir BID (DTG)		0	1		S - Susceptible
Elvitegravir (EVG)		0	1		S - Susceptible
Raltegravir (RAL)		0	1		S - Susceptible

ASI Drug Resistance Algorithm Stanford HIVDB 7.0.1

B

Nucleoside Reverse Transcriptase Inhibitors (NRTI)

Drug	Mutations List	Score	Range	Color	Interpretation
abacavir (ABC)		0	1		Susceptible
zidovudine (AZT)		0	1		Susceptible
stavudine (D4T)		0	1		Susceptible
didanosine (DDI)		0	1		Susceptible
emtricitabine (FTC)		0	1		Susceptible
lamivudine (3TC)		0	1		Susceptible
tenofovir (TDF)		0	1		Susceptible

Non Nucleoside Reverse Transcriptase Inhibitors (NNRTI)

Drug	Mutations List	Score	Range	Color	Interpretation
doravirine (DOR)		0	1		Susceptible
efavirenz (EFV)		0	1		Susceptible
etravirine (ETR)		0	1		Susceptible
nevirapine (NVP)		0	1		Susceptible
rilpivirine (RPV)		0	1		Susceptible

Protease Inhibitors (PI)

Drug	Mutations List	Score	Range	Color	Interpretation
atazanavir/r (ATV/r)		0	1		Susceptible
darunavir/r (DRV/r)		0	1		Susceptible
fosamprenavir/r (FPV/r)		0	1		Susceptible
indinavir/r (IDV/r)		0	1		Susceptible
lopinavir/r (LPV/r)		0	1		Susceptible
nelfinavir (NFV)		0	1		Susceptible
saquinavir/r (SQV/r)		0	1		Susceptible
tipranavir/r (TPV/r)		0	1		Susceptible

Integrase Inhibitors (INI)

Drug	Mutations List	Score	Range	Color	Interpretation
bictegravir (BIC)		0	1		Susceptible
dolutegravir (DTG)		0	1		Susceptible
elvitegravir (EVG)		0	1		Susceptible
raltegravir (RAL)		0	1		Susceptible

Drug resistance algorithm: STANFORD (8.8)

C

Nucleoside Reverse Transcriptase Inhibitors (NRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
lamivudine (3TC)	M184I	60	5		High-level resistance
abacavir (ABC)	M184I	15	3		Low-level resistance
zidovudine (AZT)	M184I	-10	1		Susceptible
stavudine (D4T)	M184I	-10	1		Susceptible
didanosine (DDI)	M184I	10	2		Potential low-level resistance
emtricitabine (FTC)	M184I	60	5		High-level resistance
tenofovir (TDF)	M184I	-10	1		Susceptible

Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
efavirenz (EFV)		0	1		Susceptible
etravirine (ETR)		0	1		Susceptible
nevirapine (NVP)		0	1		Susceptible
rilpivirine (RPV)	M184I	0	1		Susceptible

Protease Inhibitors (PI)

Drug	Mutations list	Score	Range	Color	Interpretation
atazanavir/r (ATV/r)		0	1		Susceptible
darunavir/r (DRV/r)		0	1		Susceptible
fosamprenavir/r (FPV/r)		0	1		Susceptible
indinavir/r (IDV/r)		0	1		Susceptible
lopinavir/r (LPV/r)		0	1		Susceptible
nelfinavir (NFV)		0	1		Susceptible
saquinavir/r (SQV/r)		0	1		Susceptible
tipranavir/r (TPV/r)		0	1		Susceptible

Integrase Inhibitors (INI)

Drug	Mutations list	Score	Range	Color	Interpretation
dolutegravir (DTG)	E92Q	10	2		Potential low-level resistance
elvitegravir (EVG)	E92Q	60	5		High-level resistance
raltegravir (RAL)	E92Q	30	4		Intermediate resistance

Drug resistance algorithm: STANFORD (8.2)

D

Nucleoside Reverse Transcriptase Inhibitors (NRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
lamivudine (3TC)	M184IV	60	5		High-level resistance
abacavir (ABC)	M184IV	15	3		Low-level resistance
zidovudine (AZT)	M184IV	-10	1		Susceptible
stavudine (D4T)	M184IV	-10	1		Susceptible
didanosine (DDI)	M184IV	10	2		Potential low-level resistance
emtricitabine (FTC)	M184IV	60	5		High-level resistance
tenofovir (TDF)	M184IV	-10	1		Susceptible

Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI)

Drug	Mutations list	Score	Range	Color	Interpretation
efavirenz (EFV)		0	1		Susceptible
etravirine (ETR)		0	1		Susceptible
nevirapine (NVP)		0	1		Susceptible
rilpivirine (RPV)	M184IV	0	1		Susceptible

Protease Inhibitors (PI)

Drug	Mutations list	Score	Range	Color	Interpretation
atazanavir/r (ATV/r)		0	1		Susceptible
darunavir/r (DRV/r)		0	1		Susceptible
fosamprenavir/r (FPV/r)		0	1		Susceptible
indinavir/r (IDV/r)		0	1		Susceptible
lopinavir/r (LPV/r)		0	1		Susceptible
nelfinavir (NFV)		0	1		Susceptible
saquinavir/r (SQV/r)		0	1		Susceptible
tipranavir/r (TPV/r)		0	1		Susceptible

Integrase Inhibitors (INI)

Drug	Mutations list	Score	Range	Color	Interpretation
dolutegravir (DTG)	E92Q	10	2		Potential low-level resistance
elvitegravir (EVG)	E92Q	60	5		High-level resistance
raltegravir (RAL)	E92Q	30	4		Intermediate resistance

Drug resistance algorithm: STANFORD (8.2)

Supplemental Figure 1: Clinical HIV drug resistance reports generated via next generation sequencing performed at the NIH clinical center on plasma and lymph node extracted RNA collected prior ART initiation (A and B, respectively), CSF during relapsed PML-IRIS at 54w of ART (C), and post-IRIS rebound viremia at of 104w of ART (D). Drug resistance mutations were identified with the Stanford University's HIV Drug Resistance Database (See Methods).