## QUICK REFERENCE GUIDE AND COMPARATIVE CHART OF CURRENTLY APPROVED ANTIRETROVIRALS (ARVS)

Trade Name	Generic Name	Class	Adult Dose	Formulation	Possible side effects	Adverse reactions	Notes
Aptivus	tipranavir	Protease Inhibitors (PIs)	Two 250mg capsules plus two 100mg Norvir capsules, twice a day	Ħ	Rash, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, transaminitis, and increased haemorrhage in patients with hemophilia.	Brain haemorrhage; hepatitis (extra care needed for HBV and HCV); Hepatotoxicity - monitor ALT, GI intolerance.  * Hepatoxicity including clinical hepatitis and hepatic decomposition	Aptivus and Norvir should be taken with food, preferably a full nutritious meal (e.g., breakfast and dinner). Aptivus/Norvir should not be taken with other protease inhibitors. If taken with ddl (Videx or Videx EC), Aptivus/Norvir should be taken at least two hours before or two hours after taking ddl.
Atripla	efavirenz (Sustiva) + tenofovir (Viread*) + emtricitabine (Emtriva*)  * Viread and Emtriva are nucleoside reverse transcriptase inhibitors (NRTIs)	Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)	One tablet (contains 600mg Sustiva + 300mg Viread + 200mg Emtriva), once a day	120	Similar side effects to Sustiva (efavirenz), Viread (tenofovir), and Emtriva (emtricitabine).  Please note Viread's and Emtriva's adverse reactions.	Lactic acidosis; hepatic steatosis	This is a complete one-pill, once-daily drug regimen. It can be used with or without other HIV medications.  It is recommended that Atripla be taken on an empty stomach. Dose should be taken at bedtime to minimize dizziness, drowsiness and impaired concentration.
Combivir	zidovudine (Retrovir) + lamivudine (Epivir)	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One tablet (contains 300mg Retrovir + 150mg Epivir), twice a day	(GX EC.)	Similar side effects to Retrovir (zidovudine) and Epivir (lamivudine).  Please note Retrovir's and Epivir's adverse reactions	Anaemia and decrease in white blood cells; muscle damage; lactic acidosis; hepatic steatosis.	Take with or without food, taking it with food may minimize stomach upset.
Crixivan	indinavir	Protease Inhibitors (PIs)	Two 400mg capsules, every 8 hours, or two 400mg Crixivan capsules with either one or two 100mg Norvir capsules twice a day (preferred dosing).	2000 AB	Nausea, vomiting, diarrhoea, transaminitis, hypercholesterolaemia, hypertriglyceridaemia, increased glucose, lipodystrophy, benign increase in bilirubin, increased haemorrhage in patients with hemophilia. Also: headache, weakness, diplopia, dizziness, rash, metallic taste, low platelets, hair loss, anemia.	Nephrolithiasis	Without Norvir: Take on an empty stomach (no food two hours before or one hour after dosing), or with a light, low-fat snack.  With Norvir: Take with or without food.  Drink at least 48 ounces (six 8-oz. glasses) of water daily to prevent kidney stones.

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Emtriva	emtricitabine	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 200mg capsule once a day.  Pediatric formulation available.	200 m	Minimal side effects.	Buildup of lactic acidosis; hepatic steatosis- use carefully in people with hepatitis B  *Lactic acidosis with steatosis.	Take with or without food.
Epivir	lamivudine or 3TC	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 300mg tablet, once a day, or one 150mg tablet, twice a day. Pediatric formulation available.		Minimal side effects.	Buildup of lactic acidosis; hepatic steatosis- use carefully in people with hepatitis B (HBV)  * Lactic acidosis with steatosis; patients with HIV infection should receive only dosage and formulations appropriate for treatment of HIV.	Take with or without food. Epivir is also used to treat patients infected with the Hepatitis B Virus (HBV), but at a different dose. Coinfected with HIV and HBV, the dosage indicated for HIV therapy should be used.
Epzicom or Kivexa	abacavir (Ziagen) + lamivudine (Epivir)	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One tablet (contains 600mg Ziagen + 300mg Epivir), once a day		Similar side effects to Epivir (lamivudine) and Ziagen (abacavir).  Please note lamivudine and abacavir's adverse reactions	Severe hypersensitivity (symptoms include fever; rash; severe nausea, diarrhoea, abdominal pain; sore throat; cough; and dyspnoea); lactic acidosis; hepatic steatosis.	Take with or without food.
Fuzeon	T-20	Entry Inhibitors (including Fusion Inhibitors)	Two 90mg (in 1-ml solution) subcutaneous injections a day.	Nation of the last	Site reactions can include itching, swelling, redness, pain or tenderness or indurated skin; increased risk of bacterial pneumonia; serious allergic reaction (rare).		Fuzeon must be reconstituted with sterile water every day.
Invirase	saquinavir	Protease Inhibitors (PIs)	Invirase must be used in combination with Norvir. The approved dose is two 500mg Invirase tablets plus one 100mg Norvir capsule, twice a day.	507 250	Nausea, diarrhoea, GI discomfort, headache, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, increased glucose, transaminitis, and increased haemorrhage in patients with hemophilia.		Invirase and Norvir should be taken with food, preferably a full nutritious meal (e.g., breakfast and dinner), or within 2 hours after a meal.
Isentress	raltegravir	Integrase Inhibitors	One 400mg tablet twice a day	225	Diarrhoea, nausea, and headache. Clinical trials, showed abnormally elevated levels of creatinine kinase in some patients. Isentress should be used with caution in patients who are at increased risk for myopathy and rhabdomyolysis, which includes patients using other medications known to cause these conditions.		Take with or without food. Because Isentress is metabolized differently than most other antiretrovirals and many other medications, it can be combined safely with PIs, NNRTIs, methadone, opioid pain relievers, statins, antifungals, proton pump inhibitors, oral contraceptives, and erectile dysfunction drugs.

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Kaletra or Aluvia	Lopinavir/ritonavir	Protease Inhibitors (PIs)	Two tablets, twice, or, if starting therapy for the first time, four tablets once a day Each contains 200mg lopinavir + 50mg ritonavir. Pediatric formulation available.		Nausea, diarrhoea, GI discomfort, weakness, transaminitis, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, increased glucose, and increased bleeding in patients with hemophilia.		Can be taken with or without food. Does not need to be refrigerated.  Sustiva (efavirenz), Viramune (nevirapine), Lexiva (fosamprenavir), and Viracept (nelfinavir) may lower the plasma levels of Kaletra. If other anti-HIV medications have failed in the past, especially other protease inhibitors, it may be necessary to increase dose of Kaletra if patient also taking any of these four drugs (three tablets twice a day). Kaletra should not be taken only once-daily with these drugs.
Lexiva or Telzir	fosamprenavir	Protease Inhibitors (PIs)	Two 700mg tablets, twice a day, or two 700mg tablets plus one 100mg Norvir capsule, once a day, or one 700mg tablet plus one 100mg Norvir capsule twice a day. This last dosing option should be used for patients who have tried and failed other protease inhibitors.  Pediatric formulation available.	DAM!	Rash, GI discomfort, headache, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, increased glucose, transaminitis, hepatitis and increased haemorrhage in patients with hemophilia.		Take with or without food.
Norvir	ritonavir	Protease Inhibitors (PIs)	Six 100mg capsules, twice a day, and increase to full dose over 14 days. Note: the full dose of Norvir is rarely used. Norvir is most often used at low doses to "boost" levels of other protease inhibitors.  Pediatric formulation available.	Ol de	Nausea, diarrhoea, GI discomfort, taste perversion, paresthesias around mouth and in the limbs, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, hepatitis, weakness, increased glucose, transaminitis, and increased haemorrhage in patients with hemophilia.	Taking Norvir with certain allergy medications, sedatives, heart medications, and migraine medications can increase the risk of their side effects.  * Potentially serious drug interactions with non-sedating antihistamines, sedative hypnotics, antiarrhythmics, or ergot alkaloids.	Take with food. High-fat snacks may reduce side effects. Capsules and oral solution may be stored at room temperature, but should be refrigerated in hot weather. Solution can be mixed with chocolate syrup, chocolate icecream, or Ensure to mask the taste.

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Prezista	darunavir	Protease Inhibitors (PIs)	Prezista must be used in combination with Norvir. The approved dose is two 300mg Prezista tablets plus one 100mg Norvir capsule, twice a day.	Trans	Nausea, diarrhoea, GI discomfort, headache, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, increased glucose, transaminitis, inflammation of the nose and throat, and increased haemorrhage in patients with hemophilia.		Prezista and Norvir should be taken with food, although the type and amount of food does not matter. If taken with ddI (Videx or Videx EC), Prezista/Norvir should be taken at least two hours before or one hour after taking ddI.
Rescriptor	delavirdine	Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)	Two 200mg tablets, three times a day.	SECURITY SECURITY	Rash, transaminitis, and headaches.		Take with or without food. Rescriptor can increase the blood levels of protease inhibitors therefore doses may need to be decreased. Should not take buffered Videx (ddI) tablets—or anything containing an antacid—within one hour of a dose of Rescriptor. Both antacids and Videx tablets (which contain an antacid) can block Rescriptor from being absorbed.
Retrovir	zidovudine or AZT	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 300mg tablet, twice a day.  Pediatric formulation available.	X (M2	Nausea, GI discomfort, headache, stomatitis, insomnia and weakness.	Anaemia and decrease white cell count; muscle damage; lactic acidosis; hepatic steatosis.	Taking with food may minimize stomach discomfort.
Reyataz	atazanavir	Protease Inhibitors (PIs)	Two 200mg capsules, once a day, <i>or</i> one 300mg capsule plus one 100mg Norvir capsule, once a day.	8M5 200mc 3631 3622	Benign increase in bilirubin, prolonged QT (caution with conduction defects or drugs that do this), increased glucose, lipodystrophy, and increased haemorrhage in patients with hemophilia.		Take with a light meal. For treatment experienced patients the recommended dose is 300mg Reyataz plus 100mg Norvir (all as a single dose with food). This combination of Reyataz and Norvir is also recommended for patients on Viread (tenofovir) or Sustiva (efavirenz) in a drug regimen that involves Reyataz.
Selzentry	maraviroc	Entry Inhibitors (including Fusion Inhibitors)	Because of drug interactions, the dose depends on concurrently used medications. The correct dose is either 150mg, 300mg, or 600mg, twice a day.	Pfiner	Cough, fever, colds, rash, muscle and joint pain, stomach pain and dizziness. Less common side effects include cardiovascular problems and transaminitis.  Because Selzentry blocks the CCR5 co receptor located on some immune cells, there is a theoretical risk of developing infections and cancers.		Selzentry is only effective against CCR5-tropic HIV (virus that uses the CCR5 receptor on CD4 cells). It will not be effective against virus targeting CXCR4 and limited effect against HIV targeting both receptors. A tropism assay, such as Monogram Bioscience's Trofile, should be done before Selzentry used to determine drug will be useful.

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Sustiva or Stoctrin	efavirenz	Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)	One 600mg tablet once a day.	BASTYA	Rash; central nervous system symptoms, such as drowsiness, insomnia, confusion, inability to concentrate, dizziness, and vivid dreams; transaminitis; falsepositive cannibinoid test; and birth defects if taken during pregnancy.		It is recommended that Sustiva be taken on an empty stomach. Dose should be taken at bedtime to minimize dizziness, drowsiness and impaired concentration. If Sustiva is taken with the protease inhibitors Reyataz, Invirase, Kaletra, Crixivan, Agenerase, or Lexiva, their doses may need to be increased or they may need to be combined with a low dose of Norvir (e.g., 100 mg) to help maintain necessary plasma levels.
Trizivir	zidovudine (Retrovir) + lamivudine (Epivir) + abacavir (Ziagen)	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One tablet (contains 300mg Retrovir + 150mg Epivir + 300mg Ziagen), twice a day	INIXO	Similar side effects to Retrovir (zidovudine), Epivir (lamivudine), and Ziagen (abacavir).  Please note Retrovir's, Epivir's and Ziagen's adverse reactions.	Hyper-sensitivity-reaction (ABC), bone marrow suppression and GI intolerance (AZT), HBV flare * Hematologic toxicity: anemia & leucopenia. Lactic acidosis and steatosis	Take with or without food. Do not give Trizivir if person weighs less than 40kg.
Truvada	tenofovir (Viread) and emtricitabine (Emtriva)	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One tablet (contains 300mg Viread + 200mg Emtriva), once a day		Similar side effects to tenofovir (Viread) and emtricitabine (Emtriva)  Please note tenofivir and emtricitabine adverse reactions.	Lactic acidosis; hepatic steatosis; should be used carefully in HBV, can cause HBV flare.	Take with or without food.
Videx	didanosine or ddI – buffered version	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	Two 100mg tablets twice a day, or two 200mg tablets, once a day. Doses may need adjustment for patients weighing less than 60 kg.	(173)	Paresthesias in the hands or feet, nausea and diarrhoea.	Pancreatitis; lactic acidosis; hepatic steatosis; peripheral neuropathy  *Fatal and nonfatal pancreatitis: do not restart. Lactic acidosis with steatosis Fatal lactic acidosis when combined with stavudine in pregnancy.	Clinical data supports twice-daily dosing as more effective. Take on an empty stomach (30 minutes before or 2 hours after a meal). Okay to take at the same time as all NRTIs. The buffered versions of Videx should not be taken at the same time as any of the protease inhibitors (PIs); PIs should be taken two hours before or two hours after Videx. The NNRTIs Viramune and Sustiva can be taken at the same time as Videx; the NNRTI Rescriptor should be taken at least one hour before or one hour after Videx. Avoid alcohol.

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Videx EC	didanosine or ddI - delayed-release capsules	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 400mg capsule once a day. For patients weighing less than 60 kg, the dose is one 250mg capsule once a day.	6674	Paresthesias in the hands or feet, nausea and diarrhoea	Pancreatitis; lactic acidosis; hepatic steatosis; peripheral neuropathy. *Fatal and nonfatal pancreatitis: do not restart. Lactic acidosis with steatosis Fatal lactic acidosis when combined with stavudine in pregnancy.	Take Videx EC on an empty stomach (1 hour before a meal & 2 hours after). Can be taken at the same time as all other anti-HIV medications, with the exception of the protease inhibitor Aptivus; Videx EC should be taken at least two hours before or two hours after Aptivus. Avoid alcohol.
Viracept	nelfinavir	Protease Inhibitors (PIs)	Two 625mg tablets, twice daily, or five 250mg tablets, twice a day, or three 250mg tablets, three times a day Pediatric formulation available.	8	Diarrhoea, hypercholesterolaemia, hypertriglyceridaemia, lipodystrophy, increased glucose, transaminitis, increased haemorrhage in patients with hemophilia.	GI intolerance	Take with a high fat meal or snack.  Powder formulation soluble in water is available for people unable to swallow tablets.
Viramune	nevirapine	Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)	One 200mg tablet per day for 14 days, then one 200mg tablet, twice a day.  Pediatric formulation available.	(sal las)		Severe, life-threatening hepatitis and hepatic necrosis, notably among women with CD4 >250 in first 6 wks; rash.  * Hepatotoxicity including fulminant and cholestatic hepatitis & hepatic necrosis: monitor intensively in first 18 wks of therapy.  Severe, life-threatening skin reaction including toxic epidermal necrolysis (TEN), Stevens-Johnsson syndrome, etc.  Do not restart if there is serious liver injury or serious drug reaction.	Careful dosing and monitoring needed at start of treatment. Take with or without food. Once daily dosing recommendation based on limited clinical data. If Viramune is taken with the protease inhibitors Reyataz, Invirase, Kaletra, Crixivan, Agenerase, or Lexiva, their doses may need to be increased or they may need to be combined with a low dose of Norvir (e.g., 100 mg) to help maintain necessary drug plasma levels.
Viread	tenofovir DF	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 300mg tablet once a day.	A221	Weakness, headache, nausea, vomiting, diarrhoea, flatulence, and renal toxicity.	Lactic acidosis; hepatic steatosis; should be used carefully in HBV; can cause HBV flare. *Lactic acidosis and steatosis; discontinuation in pts with HBV co-infection may cause exacerbation of acute HBV.	Take with or without food. If taken with ddI (Videx or Videx EC), it can increase ddI plasma levels by as much as 60%, increasing ddI side effects.

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Zerit	stavudine or d4T	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 40mg capsule, every 12. Dosage may need to be altered for patients weighing less than 60 kg Pediatric formulation available.	155 40 105 40	Paresthesias or pain in the hands or feet; peripheral neuropathy; lipodystrophy; muscular weakness (rare); hypercholesterolaemia, hypertriglyceridaemia.	Lactic acidosis (has been fatal in pregnant women when combined with Videx/Videx EC); pancreatitis, lipoatrophy hepatic steatosis (when combined with Videx/Videx EC);ascending paresis (rare)  * Lactic acidosis with steatosis Fatal and non-fatal pancreatitis. Fatal lactic acidosis when combined with didanosine in pregnancy.	Take with or without food. Do not take with Retrovir (zidovudine) or Combivir (zidovudine + lamivudine).
Ziagen	Abacavir (ABC)	Nucleoside/Nucleotid e Reverse Transcriptase Inhibitors (NRTIs)	One 300mg tablet twice a day, or two tablets once a day. Pediatric formulation available.	6X 623		Severe hypersensitivity (symptoms include fever; rash; severe nausea, diarrhoea, abdominal pain; sore throat; cough; and dyspnoea) *Fatal hypersensitivity, lactic acidosis and hepatic steatosis.	Take with or without food.  If hypersensitivity reaction has occurred do not restart therapy.

<sup>\*</sup>Black Box Warnings - these reflect side effects that the U.S. Food and Drug Administration (FDA) has required manufacturers to list in the package inserts for some HIV drugs. These are the most dangerous side effects that healthcare providers and people living with HIV should be aware of. However, drugs without Black Box Warnings can still have serious side effects.