






Antiretroviral Dosing, Adverse Reactions, and Interaction Potential






PI		Protease Inhibitors (PIs) <i>Hepatotoxicity, lipodystrophy, dyslipidemias, insulin resistance/ hyperglycemia with all PIs</i>			
Drug		FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Initial Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
atazanavir Reyataz® ATV		<ul style="list-style-type: none"> 400 mg DAILY (tx naïve) (Part of Acceptable Regimen) 300 mg DAILY + ritonavir 100 mg DAILY (Part of Preferred Regimen) <p>With food</p>	300 mg 200 mg 150 mg 100 mg	Asymptomatic hyperbilirubinemia, nausea, kidney stones	Both substrate and inhibitor of liver enzymes; boosting with Ritonavir when co-administered with tenofovir or efavirenz or nevirapine (see package insert for interactions & dosing adjustments when used with H-2 blockers & PPIs)
darunavir Prezista® DRV		<ul style="list-style-type: none"> 600mg BID + ritonavir 100mg BID 800mg + ritonavir 100mg daily (no darunavir mutations) (Part of Preferred Regimen) <p>With food</p>	600 mg 400 mg 300 mg (to be discontinued)	Rash, nausea, diarrhea, headache	Both substrate and inhibitor of liver enzymes (CYP-3A4)
fosamprenavir Lexiva® f-APV		<ul style="list-style-type: none"> 1400 mg BID (tx naïve) 700 mg BID+ ritonavir 100 mg BID (most common) 1400 mg DAILY + ritonavir 100-200 mg DAILY (tx naïve) (Part of Alternative Regimen) <p>No food restrictions</p>	700 mg	Diarrhea, rash, nausea, kidney stones	Both substrate and inhibitor of liver enzymes Multiple interactions possible: see package insert for more information
lopinavir + ritonavir Kaletra® LPV/r		<ul style="list-style-type: none"> Two tablets BID Four tablets DAILY (tx-naïve) (Part of Alternative Regimen) <p>With or w/o food</p>	200mg/ 50 mg	Diarrhea, nausea	Both substrate and inhibitor of liver enzymes Contains ritonavir, a potent inhibitor of liver enzymes
nelfinavir Viracept® NFV		<ul style="list-style-type: none"> 1250 mg BID 750 mg TID <p>With food</p>	250 mg 625 mg	Diarrhea, nausea, vomiting	Both substrate and inhibitor of liver enzymes
ritonavir Norvir® RTV		<ul style="list-style-type: none"> Given 100-200 mg DAILY BID to boost other PIs <p>Not active against HIV at this dose (Part of Preferred Regimen)</p>	100 mg	Nausea, vomiting, diarrhea	SIGNIFICANT drug interactions due to potent inhibition of liver enzymes: see package insert

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saquinavir Invirase® SQV		<ul style="list-style-type: none"> 1000 mg BID + ritonavir 100 mg BID <p style="text-align: center;">(Part of Acceptable with Caution Regimen)</p> <p>With food</p>	500 mg 200 mg	Diarrhea, nausea, abdominal pain	Both substrate and inhibitor of liver enzymes
tipranavir Aptivus® TPV		<ul style="list-style-type: none"> 500 mg BID + ritonavir 200 mg BID <p>With food</p>	250 mg	Diarrhea, nausea, vomiting, fatigue, headache	Net inhibitor of liver enzymes (CYP-3A4) (see package insert)
indinavir Crixivan® IDV		<ul style="list-style-type: none"> 800 mg q8h Empty stomach or light snack With ≥48oz of fluid DAILY 800 mg BID + ritonavir 100-200mg BID <p>Can take with food</p>	400 mg	Nausea, vomiting, diarrhea, ↑bilirubin, kidney stones	Both substrate and inhibitor of liver enzymes

NRTI		Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIs) or Nucleoside Analogues (NAs) <i>Hepatotoxicity, mitochondrial toxicity/lactic acidosis with NRTIs/NAs</i>			
Drug		FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
lamivudine Epivir® 3TC		150 mg BID (shown) or 300 DAILY <p style="text-align: center;">(Part of Alternative Regimen)</p> <p>No food restrictions</p>	150 mg 300 mg	Transaminasemia if discontinue in HBV co-infection Headaches, nausea	Minimal
abacavir Ziagen® ABC		<ul style="list-style-type: none"> 300 mg BID 600 mg DAILY <p style="text-align: center;">(Part of Alternative Regimen)</p> <p>No food restrictions</p>	300 mg	Nausea, vomiting, diarrhea; Hypersensitivity reaction (HSR) (fever, malaise, GI sx's, rash; do NOT re-challenge) Must have HLA*B5701 prior to start to avoid HSR	Minimal

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NRTI		Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIs) or Nucleoside Analogues (NAs) <i>Hepatotoxicity, mitochondrial toxicity/lactic acidosis with NRTIs/NAs</i>			
Drug		FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
zidovudine Retrovir® AZT, ZDV		<ul style="list-style-type: none"> • 300 mg BID • 200 mg TID (Part of Acceptable Regimen) No food restrictions; taking with food may minimize stomach discomfort	300 mg 100 mg	Anemia, neutropenia, headaches, nausea	Minimal except for other marrow toxic medications
stavudine Zerit® d4T		<ul style="list-style-type: none"> • 40mg BID (≥60kg) (shown) • 30 mg BID (<60kg) No food restrictions	20 mg 40 mg 30mg	Do not use with ddI in pregnancy, peripheral neuropathy, lactic acidosis, lipodystrophy	Minimal Do not take with zidovudine or zidovudine + lamivudine
didanosine Videx® Videx® EC ddl		<ul style="list-style-type: none"> • 400 mg DAILY (≥60kg) (shown) • 250 mg DAILY (<60 kg) Empty stomach	400 mg 250 mg 200 mg 125 mg	Do not use with d4T in pregnancy, pancreatitis, peripheral neuropathy	Tenofovir increases ddl AUC—dose reduce ddl to 250 mg DAILY if co-administering with tenofovir 300 mg DAILY
emtricitabine Emtriva® FTC		<ul style="list-style-type: none"> • 200 mg DAILY (Part of Preferred Regimen) No food restrictions	200 mg	Transaminasemia if discontinue in HBV co-infection Headache, nausea, diarrhea	Minimal
tenofovir Viread® TDF		<ul style="list-style-type: none"> • 300 mg DAILY (Part of Preferred Regimen) With or without food	300 mg	Transaminasemia if discontinue in HBV co-infection Nausea, vomiting, flatulence, diarrhea Renal Toxicity	Increases didanosine AUC; reduce didanosine dose to 250 mg DAILY if tenofovir co-administered. Decreases C _{min} of atazanavir boost atazanavir 300 mg with ritonavir 100 mg DAILY if tenofovir co-administered.

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NNRTI		Non-Nucleoside Reverse Transcriptase Inhibitors <i>Rash, hepatotoxicity with all NNRTIs</i>			
Drug		FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
delavirdine Rescriptor® DLV		<ul style="list-style-type: none"> • 400 mg TID No food restrictions	100 mg 200 mg	RASH, headache	Both substrate and inhibitor of liver enzymes
efavirenz Sustiva® EFV		<ul style="list-style-type: none"> • 600 mg DAILY (Part of Preferred Regimen) Initially at bedtime and preferably on empty stomach	600 mg	CNS effects: dizziness, somnolence, insomnia, confusion Avoid in pregnancy	Can be an inducer or inhibitor of liver enzymes; see package insert
nevirapine Viramune® Viramune XR NVP		<ul style="list-style-type: none"> • 200mg DAILYx2wks; then 200mg BID or 400mg DAILY (Part of Acceptable Regimen) No food restrictions	200 mg 400mg XR	RASH Hepatotoxicity Careful dosing and monitoring needed at start of treatment to avoid hypersensitivity reaction Avoid in Women with >250 CD4 cells and Men with >400 CD4 cells	Both substrate and inducer of liver enzymes
etravirine Intelence® ETR		<ul style="list-style-type: none"> • 200 mg BID With food	100 mg 200 mg	RASH, nausea	Etravirine is substrate and inducer of liver enzymes (3A4, 2C9, 2C19) Do not co-administer with tipranavir, fosamprenavir, atazanavir, non-ritonavir-boosted PIs, and other NNRTIs
rilpivirine Edurant® RPV		<ul style="list-style-type: none"> • 25 mg DAILY Take with at least 400 calorie meal containing 13 grams of fat (Part of Alternative Regimen)	25 mg	RASH	Substrate of 3A4, Contraindicated with Proton Pump Inhibitors

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Entry/Fusion Inhibitors

Drug	FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
enfuvirtide Fuzeon® T-20/ENF 	<ul style="list-style-type: none"> 90 mg SQ BID 		Injection site reactions; myalgia; pneumonia	Minimal
maraviroc Selzentry® MVC 	<ul style="list-style-type: none"> If given with strong CYP 3A inhibitor PI (except tipranavir): 150mg BID If given efavirenz or rifampin: 600mg BID Otherwise, 300mg BID (Part of Acceptable Regimen) 	150 mg 300 mg	Hepatotoxicity Upper Respiratory symptoms	Substrate of CYP 3A4; See package insert




Integrase Inhibitors

Drug	FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
raltegravir Isentress® RAL 	400mg BID (Part of Preferred Regimen)	400 mg	Nausea, headache, diarrhea, increased creatine kinase	Cautions when administering with strong inducer of UGT IAI (eg rifampin)


NRTI Combination

Drug	FDA Approved Adult Dosing	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
lamivudine + abacavir Epzicom® 3TC + ABC 	<ul style="list-style-type: none"> One DAILY (Part of Alternative Regimen) No food restrictions 	300 mg / 600 mg	Transaminasemia if D/C in HBV co-infection (lamivudine) Must have HLAB5701 test to avoid hypersensitivity (abacavir)	Minimal


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lamivudine + abacavir +zidovudine Trizivir® 3TC + ABC + ZDV		<ul style="list-style-type: none"> One BID No food restrictions	150 mg/ 300 mg/ 300 mg	Transaminasemia if D/C in HBV co-infection (lamivudine) Must have HLAB5701 test to avoid hypersensitivity (abacavir)	Minimal
Lamivudine + zidovudine Combivir® 3TC + ZDV		<ul style="list-style-type: none"> One BID (Part of Acceptable Regimen) No food restrictions	180 mg/ 300 mg	Transaminasemia if D/C in HBV co-infection (lamivudine) Anemia (zidovudine)	Minimal
emtricitabine + tenofovir Truvada® FTC + TDF		<ul style="list-style-type: none"> One DAILY (Part of Preferred Regimen) No food restrictions	200 mg/300 mg	Transaminasemia if D/C in HBV co-infection (emtricitabine+tenofovir) Renal Toxicity (tenofovir)	See notation regarding interactions with tenofovir


NRTI + NNRTI Combination (See individual antiretroviral for additional side effects & interaction information)

Drug	FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
efavirenz + emtricitabine + tenofovir Atripla™ EFV + FTC + TDF	 <ul style="list-style-type: none"> One DAILY (at bedtime) Preferably empty stomach (Preferred Regimen)	600 mg / 200 mg 300 mg	Transaminasemia if discontinue in HBV co-infection (emtricitabine+tenofovir) Avoid in pregnancy (efavirenz) Renal Toxicity (tenofovir)	See tenofovir and efavirenz & emtricitabine notations

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<p>emtricitabine + rilpivirine + tenofovir Complera® FTC+ RPV +TDF</p>		<ul style="list-style-type: none"> One DAILY <p>Take with at least 400 calorie meal containing 13 grams of fat</p> <p>(Alternative Regimen)</p>	<p>200mg/25mg/300 mg</p>	<p>Rash (rilpivirine)</p> <p>Transaminasemia if discontinue in HBV co-infection (emtricitabine+tenofovir)</p> <p>Renal Toxicity (tenofovir)</p>	<p>See rilpivirine, tenofovir and emtricitabine notations.</p>
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NRTI + Integrase Combination (See individual antiretroviral for additional side effects & interaction information)

Drug	FDA Approved Adult Dosing <i>Preferred, Alternative & Acceptable Antiretroviral Regimens</i>	Tab/Capsule Dosage Form	Common or Important Side Effects & Cautions	Potential Interactions
<p>Elvitegravir + cobicistat + tenofovir + emtricitabine</p> <p>Stribild® EVG+COBI+TDF+ FTC</p>	 <ul style="list-style-type: none"> One DAILY <p>(Alternative Regimen)</p>	<p>150mg/150mg/ 300mg/200mg</p>	<p>Diarrhea, Nausea, Headache</p> <p>Asymptomatic increase in SCr (cobicistat)</p> <p>Transaminasemia if discontinue in HBV co-infection (emtricitabine+tenofovir)</p> <p>Renal Toxicity (tenofovir)</p>	<p>Elvitegravir substrate of CYP3A4</p> <p>Cobicistat inhibitor of CYP3A4 – SIGNIFICANT drug interactions due to potent inhibition of liver enzymes: see package insert</p>

Preferred Regimens - Regimens with optimal and durable efficacy, favorable tolerability and toxicity profile, and ease of use. ARV noted here may also be used in Alternative and Acceptable regimens.

Alternative Regimens - Regimens that are effective and tolerable but have potential disadvantages compared with preferred regimens. An alternative regimen may be the preferred regimen for some patients. ARV noted here may also be used in Acceptable regimens.

Acceptable Regimens (CI) - Regimens that may be selected for some patients but are less satisfactory than preferred or alternative regimens.