

Drug-Drug Interactions

- Statins:** PIs can increase statin levels; simvastatin & lovastatin contraindicated; lower dose of atorvastatin & rosuvastatin; pravastatin does not require dose adjustment
- Steroids:** PIs and PK boosters may increase risk of Cushing's syndrome, beclomethasone (Qvar, Qnasl) or flunisolide is preferred, topical hydrocortisone is ok
- Anti-platelets:** PIs may alter the activities of P2Y12 inhibitors (i.e. clopidogrel, prasugrel, ticagrelor are contraindicated)
- Anti-coagulants:** Apixaban, rivaroxaban, and dabigatran are contraindicated with PIs, warfarin preferred with increased INR monitoring
- PDE-5 inhibitors:** PIs can increase PDE-5 inhibitor levels and the risk of toxicity (use lowest dose available)
- OTC medications:**
 - PPI and H2RA reduce absorption of RPV & ATV
 - Polyvalent cations (i.e. calcium, iron) need to be separated from INSTIs by 4 hours
- Hormonal contraceptives:** ART may decrease effectiveness of oral contraceptives, consider alternative ART or contraception methods
- Common 3A4 inducers:** rifampin, St. John's wort

Check for DDI's using "Liverpool HIV Drug Interactions Checker" at <https://www.hiv-druginteractions.org/checker>

PrEP & PEP

Pre-exposure prophylaxis

Occupational and non-occupational post-exposure prophylaxis

PrEP	TDF/FTC (Truvada®) PO daily
PEP	RAL + TDF/FTC
nPEP	[RAL or DTG] + [TDF or TAF] + FTC Alternative: DRV/r + TDF + FTC

- PrEP: Test renal function and HIV/STI every 3-6 months
- PEP/nPEP: Initiate within 72 hours
 - Treat for 28 days
 - Test for HIV at baseline, 4 & 12 weeks

- ART's available as liquid:** ABC, 3TC, FTC, ZDV, LPV/r, ETR (dispersible tabs), ritonavir
- ART food requirements:** take with food for all except didanosine, **efavirenz**, fosamprenavir, indinavir

Not included in this pamphlet: stavudine, didanosine, fosamprenavir, indinavir, nelfinavir, sequinavir, tipranavir

Recommended Initial Regimens

Reference: DHHS Guidelines for the Use of ARVs in Adults Living with HIV 2018

Recommended for Most People with HIV	
INSTI-Based	BIC/TAF/FTC DTG/ABC/3TC (if HLA-B*5701 negative) DTG + tenofovir/FTC RAL + tenofovir/FTC
Recommended in Certain Clinical Situations	
PI-Based	(DRV/c or DRV/r) + tenofovir/FTC (ATV/c or ATV/r) + tenofovir/FTC (DRV/c or DRV/r) + ABC/3TC (if HLA-B*5701 negative)
NNRTI-Based	DOR/TDF/3TC or DOR + TAF/FTC EFV + tenofovir/FTC RPV/tenofovir/FTC **
Alt. INSTI-Based	EVG/c/tenofovir/FTC RAL + ABC/3TC*(if HLA-B*5701 negative)
When ABC, TDF, and TAF Can't Be Used	DTG/3TC DRV/r + RAL twice daily ** DRV/r once daily + 3TC

*Only if HIV RNA <100,000 copies/mL

**Only if HIV RNA <100,000 copies/mL and CD4 >200 cells/mm³

Combination Products

Brand	Components	Dose Adjustments
Epzicom®	ABC + 3TC	Avoid if CrCl <50
Triumeq®	DTG + ABC + 3TC	Avoid if CrCl <50
Truvada®	TDF + FTC	Avoid if CrCl <50
Descovy®	TAF + FTC	Avoid if CrCl <30
Complera®	RPV + TDF + FTC	Avoid if CrCl <50
Odefsey®	RPV + TAF + FTC	Avoid if CrCl <30
Stribild®	EVG/cobi + TDF + FTC	Don't start if CrCl <70 Stop use if CrCl <50
Genvoya®	EVG/cobi + TAF + FTC	Avoid if CrCl <30
Atripla®	EFV + TDF + FTC	Avoid if CrCl <50
Biktarvy®	BIC + TAF + FTC	Avoid if CrCl <30
Symtuza®	DRV/cobi + TAF + FTC	Avoid if CrCl <30
Juluca®	DTG + RPV	OK to use in ESRD
Cimduo®	TDF + 3TC	Avoid if CrCl <50
Symfi®	TDF + 3TC + EFV 600 mg	Avoid if CrCl <50
Symfi Lo®	TDF + 3TC + EFV 400 mg	Avoid if CrCl <50
Combivir®	3TC + AZT	Avoid if CrCl <50
Trizivir®	ABC + 3TC + AZT	Avoid if CrCl <50
Delstrigo®	DOR + 3TC + TDF	Avoid if CrCl <50
Dovato®	DTG + 3TC	Avoid if CrCl <50

HIV Antiretroviral Therapy Clinician's Pocket Guide










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Single-Tablet Regimens

 ATRIPLA® (efavirenz + tenofovir DF + emtricitabine)	 SYMFI® & SYMFI LO® (efavirenz + lamivudine + tenofovir DF)
 COMPLERA® (rilpivirine + tenofovir DF + emtricitabine)	 ODEFSEY® (rilpivirine + tenofovir alafenamide + emtricitabine)
 STRIBILD® (elvitegravir + cobicistat + tenofovir DF + emtricitabine)	 GENVOYA® (elvitegravir + cobicistat + tenofovir alafenamide + emtricitabine)
 JULUCA® (dolutegravir/rilpivirine)	 SYM TUZA® (darunavir + cobicistat + tenofovir alafenamide + emtricitabine)
 TRIUMEQ® (dolutegravir + abacavir + lamivudine)	 BIKTARVY® (bictegravir + tenofovir alafenamide + emtricitabine)
 DELSTRIGO® (doravirine + tenofovir DF + lamivudine)	 DOVATO® (dolutegravir + lamivudine)

INSTI's

Mechanism: integrase inhibitors block the integrase enzyme needed for viral DNA to integrate with the host cell DNA/ human genome

Class side effects: headache, insomnia, rash, muscle pain/weakness

Drug Interactions: separate all INSTI from polyvalent cations

ART	Dose	Notes
Raltegravir (RAL)	<i>ISENTRESS®</i> <i>ISENTRESS HD®</i>	400 mg BID HD: 2 tabs (1200mg) daily
Elvitegravir/cobi (EVG/c)	<i>Vitekta® (with cobi)</i>	150 mg daily Stribild®: Do not start if CrCl <70, stop use if CrCl <50 Genvoya®: Avoid CrCl <30
Dolutegravir (DTG)	<i>Tivicay®</i>	50 mg daily 50 mg BID if INSTI resistant or if also on rifampin
Bictegravir (BIC)	<i>Biktarvy®</i>	50 mg daily - Headache, insomnia - Increase in Scr - Contraindicated with rifampin

Entry Inhibitors

Mechanism (maraviroc): inhibits CCR5 co-receptor of CD4+ cells and prevent HIV from entering the cell

Mechanism (ibalizumab): blocks HIV from infecting CD4+ cells by binding to domain 2 of CD4+ cell receptors and leading to a conformational change

ART	Dose	Notes
Maraviroc (MVC)	<i>Selzentry®</i>	300 mg BID With CYP3A4 inhibitors: 150mg BID With CYP3A4 inducers: 600mg BID
Ibalizumab (IBA)	<i>Trogarzo®</i>	200 mg IV over 30 min x1 then 7 days later, start 800 mg IV every 14 days

NRTI's ("Nukes")

Mechanism: Nucleoside/tide reverse transcriptase inhibitors competitively bind to reverse transcriptase to cause DNA chain termination and stop further DNA synthesis

Class side effect: lactic acidosis [BBW], hepatomegaly with steatosis [BBW]

ART	Dose	Notes
Abacavir (ABC)	<i>Ziagen®</i>	300 mg BID or 600 mg daily
Lamivudine (3TC)	<i>Epivir®</i>	150 mg BID or 300 mg daily CrCl 30-49: 150 mg daily CrCl 15-29: 100 mg daily CrCl 5-14: 50 mg daily CrCl <5: 25 mg daily
Emtricitabine (FTC)	<i>Emtriva®</i>	200 mg daily CrCl 30-49: 200mg Q48 CrCl 15-29: 200mg Q72 CrCl <15/HD: 200mg Q96
Tenofovir disoproxil fumarate (TDF)	<i>Viread®</i>	300 mg daily CrCl 30-49: Q48h CrCl 10-29: Q72-96h HD: 300 mg every 7 days
Tenofovir alafenamide (TAF)	<i>Vemlidy® for HBV</i>	25 mg daily in Descovy® 10 mg daily in Symtuza® Avoid CrCl <30

3TC, FTC, TDF, & TAF can also treat HBV; exacerbation of HBV can occur if stopped

NNRTI's ("Non-Nukes")

Mechanism: Non-nucleoside reverse transcriptase inhibitors non-competitively bind to reverse transcriptase

Class side effects: rash, neuropsychiatric (more with EFV than RPV)

Drug Interactions: many due to CYP450 metabolism (all CYP3A4 substrates) → always run a drug-drug interaction checker

ART	Dose	Notes
Nevirapine (NVP)	<i>Viramune®</i>	200 mg daily x 14 days then 200 mg BID or 400 mg daily
Efavirenz (EFV)	<i>Sustiva®</i>	600 mg daily Take without food @ bedtime
Etravirine (ETR)	<i>Intence®</i>	200 mg BID
Rilpivirine (RPV)	<i>Edurant®</i>	25 mg daily with >400 kcal of fatty food
Doravirine (DOR)	<i>Pifeltro®</i>	100 mg daily

PI's

Mechanism: Protease inhibitors inhibit HIV protease and make the enzyme incapable of cleaving the polyprotein, resulting in prevention of the assembly and maturation of HIV

Class side effects: metabolic (hyperlipidemia, lipodystrophy, hyperglycemia, insulin resistance, hepatotoxicity), N/V/D, headache, rash

Drug Interactions: many due to CYP450 metabolism (all CYP3A4 substrates/inhibitors) → always run a drug-drug interaction checker

Pharmacokinetic boosting agents: CYP 3A4 inhibitors like ritonavir 100mg or cobicistat 150mg are needed with all PI's (except with atazanavir)

ART	Dose	Notes
Lopinavir (LPV)	<i>Kaletra® (with ritonavir)</i>	800 mg / 200 mg daily or 400 mg / 100 mg BID
Atazanavir (ATZ)	<i>Reyataz®</i>	300 mg daily with ritonavir 100mg daily 400mg daily without ritonavir 300 mg / 150 mg cobi daily
Darunavir (DRV)	<i>Prezista®</i> <i>Prezcobix® (with cobi)</i>	800 mg daily or 600 mg BID if resistant 800mg/150mg daily

Fusion Inhibitor

Mechanism: blocks the fusion of the HIV virus with the CD4+ cells

ART	Dose	Notes
Enfuvirtide (T20)	<i>Fuzeon®</i>	90 mg SC BID

Grey shade = renal adjustment needed

Not included in this reference: zidovudine, delavirdine, fosamprenavir, indinavir, nelfinavir, saquinavir, tipranavir