*Strength of Recommendation: A=strong, B=moderate, C=optional. Quality of Evidence: I=≥1 randomized trials with clinical outcomes/validated lab endpoints, II=≥1 non-randomized trials/observational cohort studies with long-term clinical outcomes, III=expert opinion

HIV TREATMENT: SINGLE TABLET REGIMENS

1 Tablet - Once Daily

Brand Names	NRTI Backbone		Anchor Antiretroviral				HIVinfo Rating*	Considerations	Monitor
	1st NRTI	2nd NRTI	Integrase Inhibitor	N-NRTI	PI	PK Booster			
Biktarvy	Emtricitabine 200mg	Tenofovir TAF 25mg	Bictegravir 50mg				A1	✓ w/ or w/o food. Take 2 hrs before or after Ca/cations ✓ Good Lipid profile- consider for high cardiac risk ✓ Not recommended in < 30ml/min, severe hepatic impairment. CI w/ dofetilde or rifampin ✓ Severe acute exacerbation of Hep B upon d/c	Renal function
Triumeq	Lamivudine 300 mg	Abacavir 600 mg	Dolutegravir 50 mg				A1	✓ W or w/o food. Take 2 hrs before or 6 hrs after Ca ✓ HLA-B*5701 has to be –ve before giving abacavir ✓ No major CYP drug interactions ☺ ✓ Largest size tablet ✓ CI w/ dofetilde or rifampin	HLA-B*5701
Stribild	Emtricitabine 200 mg	Tenofovir TDF 300 mg	Elvitegravir 150 mg			Cobicistat 150 mg	B1	✓ Take with food. Take 2 hrs before/after Ca/cations ✓ TDF → Can use until 70 mL/min ✓ TAF → Can use until 30 mL/min ✓ Cobi inhibits renal tubular secretion of creatinine ✓ Cobi has many drug inx via CYP3A4 inhibition (avoid w/ drugs highly dependent on CYP3A4 clearance	Renal Function BMD Lipids
Genvoya	Emtricitabine 200 mg	Tenofovir TAF 10 mg	Elvitegravir 150 mg			Cobicistat 150 mg	B1		Renal Function Lipids
Dovato	Lamivudine 300mg	-	Dolutegravir 50 mg				A1 (*NOT if VL>500,000 or HBV)	✓ W or w/o food. Take 2 hrs before or 6 hrs after Ca ✓ < 50ml/min or Child-Pugh C not recommended ✓ CI w/ dofetilide	Renal function
Juluca	-	-	Dolutegravir 50mg	Rilpivirine 25mg			A1	✓ Maintenance Therapy–for those already virologically suppressed and no known resistance. Take with a meal ✓ A/E: HSR, Hepatotoxicity. Monitor for ADE if CrCL < 30ml/min ✓ C/I: Dofetilide, PPI	Renal Function, Liver Function
Cabenuva			Cabotegravir 30 mg (po), 600/400 mg IM	Rilpivirine 25 mg (po), 900/600 mg IM			A1	✓ Maintenance Therapy–for those already virologically suppressed and no known resistance ✓ Optional Lead-in (≥28 days): CAB 30 mg/RPV 25 mg with a meal. Take antacid/cation 2 hrs before/4hrs after oral CAB ✓ Initiation injection: CAB 600/RPV 900 mg IM ✓ Monthly maintenance: CAB 400/RPV 600 mg IM ✓ Q2month maintenance: CAB 600/RPV 900 mg IM	Injection site reactions, pyrexia, fatigue, headache
Delstrigo	Lamivudine 300mg	Tenofovir TDF 300mg		Doravirine 100mg			B1	✓ Not recommended in CrCl< 50ml/min ✓ w/ or w/o food ✓ May exacerbate hepatitis upon discontinuation ✓ Avoid w/ strong CYP3A4 inducers (ie Rifampin)	Renal Function
Atripla	Emtricitabine 200 mg	Tenofovir TDF 300 mg		Efavirenz 600 mg			B1	✓ Keep in mind CNS adverse effects of Efavirenz ✓ Not recommended CrCL <50ml/min ✓ C/I: bepridil, elbasvir/grazoprevir	Renal Function Lipids
Complera	Emtricitabine 200 mg	Tenofovir TDF 300 mg		Rilpivirine 25 mg			B1 (TDF), B2 (TAF), if VL<100,000 and CD4>200	✓ Take with meal (~ 350 kcal) for abs'n of RPV ✓ Use if HIV RNA < 100,000 & CD4 > 200 ✓ Avoid: Acid suppressing (PPI C/I) ✓ RPV fewer CNS s/e compared to Efavirenz ✓ RPV fewer rash and dyslipidemia than Efavirenz	Renal Function BMD
Odefsey	Emtricitabine 200 mg	Tenofovir TAF 25 mg		Rilpivirine 25 mg					Renal Function
Symtuza	Emtricitabine 200mg	Tenofovir TAF 10mg			Darunavir 800mg	Cobicistat 150mg	A1	✓ Take with food ✓ Not recommended in CrCL <30ml/min or Severe hepatic impairment ✓ C/I: Alfuzosin, Amiodarone, Bepridil	Renal Function

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HIV PREVENTION: Pre-Exposure Prophylaxis (PrEP)

Class	Generic		Brand	Preparations		Dosing	Side Effects	Drug Interactions	Indicated Populations	Comments
Nucleoside / Nucleotide Reverse Transcriptase Inhibitors	Emtricitabine, tenofovir alafenamide	**FTC, TAF**	**Descovy**		Emtricitabine 200 mg/TAF 10 or 25 mg	1 tablet daily	**Mostly Well Tolerated** • N/V/D/Gas	TAF- Substrate of P-gp and BCRP	✓ only recommended in gbMSM and transgender women ✓ NOT indicated for people who are at risk via receptive vaginal sex	✓ only combo also effective against Hep B ✓ TAF has ↓ rates of renal insufficiency and bone mineral density reduction vs TDF ✓ Not recommended if Clcr<30 mL/minute or hemodialysis (HD)
	Emtricitabine, tenofovir disoproxil fumarate	**FTC, TDF**	**Truvada**		Emtricitabine 200 mg/TDF 300 mg	Daily dosing: 1 tablet daily On-demand ("2-1-1") dosing: 2 tabs between 2-24 hours before sex, then 1 tab every 24 hours until 2 days after last sexual encounter	**Mostly Well Tolerated** • N/V/D/Gas • Renal impairment • Reduced bone density	Monitor renal function with concomitant use of other nephrotoxic agents (incl. chronic high-dose NSAIDS)	✓ Daily dosing: HIV-negative individuals at risk of acquiring HIV ✓ On-demand dosing: HIV-negative gbMSM ✓ NOT indicated for those who are at risk via receptive vaginal sex or for those who inject drugs	✓ only combo also effective against Hep B ✓ Renal dosing: 1 tablet q2days if Clcr 30-49 mL/minute; not recommended if <30 mL/min or HD
Integrase inhibitors	Cabotegravir	**CAB**	Apretude		Cabotegravir 200 mg/mL IM injection	***Oral lead in (optional)***: 30 mg QD for 28 days ***Initiation (3mL)***: 600 mg CAB IM q1month x 2 consecutive months ***Maintenance (3mL):*** 600 mg CAB IM q2month	**Well Tolerated** **Injection site reactions**, pyrexia, fatigue, headache, MSK pain, nausea, dizziness, sleep problems, rash (mild), diarrhea	**No CYP3A4 inx** **UGT1A1 , UGT1A9 (minor), P-gp, BCRP substrate** **↓[CAB] with:** Inducers of UGT1A1/3A4	✓ HIV-negative individuals weighing at least 35 kg at risk of sexually acquired HIV ✓	✓ CAB is 1st long acting injectable indicated for PrEP ✓ **Not Approved indication in Canada** ✓ Optional oral CAB as lead-in dosing (≥28 days) to assess tolerability or for use as oral bridging therapy for missed Apretude injections ✓ C/I: carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifampin, rifapentine.

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HIV Antiretroviral (ART) Medications

Class	Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
Nucleoside / Nucleotide Reverse Transcriptase Inhibitors - NRTI									
Combined NRTI Tablet Formulations									
AIDSinfo rating: **paired** with INSTI: Dolutegravir **A1** Raltegravir **B1** or a boosted PI: Darunavir **A1** Atazanavir **B1**	Emtricitabine, tenofovir alafenamide	**FTC, TAF**	**Descovy**		Emtricitabine 200 mg/TAF 10 or 25 mg	1 tablet daily	**Mostly Well Tolerated** • N/V/D/Gas	TAF- Substrate of P-gp and BCRP	✓ only combo also effective against Hep B ✓ Better viral suppression than Kivexa if VL > 100,000 ✓ TAF has ↓ rates of renal insufficiency and bone mineral density reduction vs TDF ✓ If on a booster, use 10 mg TAF instead of 25 mg ✓ Not recommended if Clcr<30 mL/minute or hemodialysis (HD)
	Emtricitabine, tenofovir disoproxil fumarate	**FTC, TDF**	**Truvada**		Emtricitabine 200 mg/TDF 300 mg	1 tablet daily	**Mostly Well Tolerated** • N/V/D/Gas • Renal impairment • Reduced bone density	↓ [atazanavir]; need to boost	✓ only combo also effective against Hep B ✓ Better viral suppression than Kivexa if VL > 100,000 ✓ Renal dosing: 1 tablet q2days if Clcr 30-49 mL/minute; not recommended if <30 mL/min or HD
paired with: Darunavir **B2**	abacavir, lamivudine	**ABC, 3TC**	**Kivexa**		Abacavir 600 mg/lamivudine 300 mg	1 tablet daily	**Mostly Well Tolerated** • Headache/N//D/malaise • Hypersensitivity reaction		✓ Abacavir not ideal for those with CV risk factors ✓ HLA needs to be negative before giving abacavir ✓ Comments also apply to Triumeq
Single Agent NRTI Formulations									
MOA: Analogues of nucleo(t)side which replace a base during reverse transcription of viral RNA to DNA → chain termination **Resistance**: - "low genetic barrier to resistance" - many mutations confer cross resistance to others in the class **Renal Dosing**: Use with caution & check for renal dosing for each agent	***Tenofovir alafenamide*** Adenosine analogue Nucleo**tide** Reverse Transcriptase Inhibitor (NtRTI)	**TAF**	*Vemlidy* (for chronic HBV)	25 mg tab	Descovy [1 QD] Genvoya [1 QD] Odefsey [1 QD] Biktarvy [1 QD] Symtuza [1 QD]	25 mg po QD (10 mg po QD if using with booster) Renal	**Mostly Well Tolerated** • N/V/D/Gas	TAF- Substrate of P-gp and BCRP	✓ T<u>A</u>F = tenofovir alafenamide (targeted pro-drug), ***less*** bone & renal issues ✓ safe until renal function with CrCl of 30 mL/min ✓ Preferred agent in cases of co-infection with HBV
	Tenofovir disoproxil fumarate Adenosine analogue Nucleo**tide** Reverse Transcriptase Inhibitor (NtRTI)	**TDF**	*Viread*	150, 200, 250, 300 mg tab 40 mg/g powder	Truvada [1 QD] Stribild [1 QD] Complera [1 QD] Delstrigo [1 QD] Atripla [1 QD]	300 mg po QD Renal avoid TDF in CKD	**Mostly Well Tolerated** • N/V/D/Gas • Renal impairment[TDF] • Reduced bone density [TDF]	↓[atazanavir] ↑[didanosine - ddi] Clinically not used with TDF anyways any longer	✓ TDF = tenofovir disoproxil fumarate (pro-drug), efficacy of TDF = TAF ✓ Renal: < 10 mL/min not recommended, 10 - 29 mL/min give 300 mg po q72-96h, 30-49 mL/min give 300 mg po q48h, ≥ 50 mL/min no adjustment ✓ Preferred agent in cases of co-infection with HBV ✓ Favorable lipid profile
	Emtricitabine Cytidine analogue	**FTC**	*Emtriva*	200 mg cap	With TAF or TDF products above	200 mg po QD [cap] 240 mg po QD [sol'n] Renal	**Well Tolerated** • Headache[common], dizziness • N/D • Rash, skin pig'n	Lamuvidine [X] → both **Cytosine** analogues (no point in using both)	✓ Black Box: severe exacerbation of hep B on stopping drug in pts w Hep B ✓ Only part of combos w Tenofovir in Canada ✓ Rarely pts may experience bad diarrhea. Headache most common s/e.
	Lamivudine Cytidine analogue	**3TC**	*3TC*	150, 300 mg tab	Kivexa [1 QD] Triumeq [1 QD] Dovato [1 QD] Delstrigo [1 QD] Combivir [1 BID] Trizivir [1 BID]	150 mg po BID 300 mg po QD Renal	**Well Tolerated** • Headache [beginning] • N/D/Abd pain [transient] • Insomnia [uncommon] Pancreatitis [more peds]	Emtricitabine [X] → both **Cytosine** analogues (no point in using both)	✓ Some people have headache in first few days, stick with it and use Tylenol and Advil if needed ✓ May exacerbate Hep B upon discontinuation
	Abacavir Guanosine analogue	**ABC**	*Ziagen*	300 mg tab	Kivexa [1 QD] Triumeq [1 QD] Trizivir [1 BID]	300 mg po BID 600 mg po QD ***can safely use in CKD***	**Common**: • Headache, N/D, malaise **Serious**: • Hypersensitivity reaction (HSR)		✓ Black Box: Only Rx for HLA-B*5701 negatives → Testing predicts HR in Caucasians. Rechallenge in HSR patients C/I → life threatening ✓ **Signs of HSR**: fever, rash, tired, upset stomach, vomit, belly pain, flu-like sx, sore throat, cough. Occurs < 6 wks after start (mean 11 days). Stop ASAP & see MD. ✓ Meta-analysis → no sign of ↑ MI → but if higher MI risk, ABC not best choice ✓ Can cause hepatitis and lactic acidosis esp in women and obese

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HIV Antiretroviral (ART) Medications

Class		Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
	**Zidovudine no longer recommended as first-line therapy for most patients	***Zidovudine*** **Thymidine analogue**	AZT	***Retrovir***	100, 250 mg cap 10 mg/mL syrup 10 mg/mL inject	Trizivir [1 BID] Combivir [1 BID]	300 mg po BID Also **I.V.** form Renal	**Not Well Tolerated** • Headache [62%] • N [50%] / V [17%] / Anorexia [20%] • Insomnia • Nail pigmentation • Hematologic toxicity	stavudine [X] also a thymidine analogue	✓ Black Box: hematologic toxicity, myopathy, anemia, granulocytopenia, thrombocytopenia ✓ Often in subtherapeutic mono- and dual therapy regimens ✓ Resistance likely in Long term survivors ✓ Place for therapy: IV form and syrup still used in MTCT in ***pregnancy and delivery*** and infants with HIV ✓ No longer recommended**

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Class		Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
Integrase Strand Transfer Inhibitors - INSTI	**Integrase Strand Transfer Inhibitors** **___tegravir** Favorable lipid profile as a class **Resistance**: Low genetic barrier to resistance with RAL and EVG. Higher with BIC, CAB, DTG	***Bictegravir***	**BIC**	-	(Biktarvy)	Biktarvy[1] QD	50mg po QD	**Well Tolerated** • Headache • Nausea/Diarrhea • Insomnia	**CYP3A & UGT1A1 substrate (~50:50)** **Inhibits OCT2 & MATE1** • ↑[Metformin]	✓ Only exists in combination ✓ Increase serum creatinine due to tubular inhibition without affecting glomerular function (increases usually in the first 4 weeks with median increase of 9.96umol/L after 48 weeks) ✓ May increase bilirubin ✓ Interacting classes: anticonvulsants, rifamycins, atazanavir ✓ C/I: Dofetilide, rifampin, St. John's wort
		Cabotegravir	**CAB**	Vocabria	200 mg/mL inj 30 mg tab	Cabenuva IM injection	***Oral***: 30 mg QD (+25 mg RPV) ***Initiation (3mL)***: 600 mg CAB/900 mg RPV IM ***Maintenance:*** 400 mg CAB/600 mg RPV IM monthly or 600 mg CAB/900 mg RPV IM q2months	**Well Tolerated** **Injection site reactions**, pyrexia, fatigue, headache, MSK pain, nausea, dizziness, sleep problems, rash (mild), diarrhea	**No CYP3A4 inx** **UGT1A1 , UGT1A9 (minor), P-gp, BCRP substrate** **↓[CAB/RPV] with:** Inducers of UGT1A1/3A4	✓ CAB/RPV is 1st long acting injectable combination indicated as a switch regimen in virologically suppressed patients ✓ Optional oral CAB as lead-in dosing (≥28 days) to assess tolerability or for use as oral bridging therapy for missed Cabenuva injections ✓ NB: initiation injections: one month initiation if using q1month maintance injections. For q2month maintenance, start with two initiation injections one month apart. ✓ Oral CAB C/I: carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifampin, rifapentine. Cabenuva C/I: as above plus rifabutin, systemic dexamethasone (>1 dose), St. John's wort
	Class Interaction: Oral absorption is diminished when co-administered with polyvalent cations (Mg, Ca, Al, Fe…). • BIC: take 2 hrs apart or together with food • CAB: take 2 hrs before/4 hrs after ORAL CAB • DTG: take 2 hrs before/6 hrs after or together with food • EVG: take 2 hrs apart • RAL: avoid (only Ca OK with Isentress; not HD)	***Dolutegravir***	**DTG**	*Tivicay*	50 mg tab Pediatric: 10 mg, 25 mg tab 5 mg dispersible tabs	Triumeq[1] QD Juluca[1] QD Dovato[1] QD	50 mg po QD 50 mg po BID*	**Well Tolerated** • ***Insomnia*** • Headache • ↑ SCr small (↑~0.11mg/dL)	**No CYP3A4 inx** **P-gp, UGT1A1 , CY3A4(10-15%)substrate** **Inhibits OCT2** - Metformin (inc 2 fold [metformin]) - C/I Dofetolide	✓ Take with/without food ✓ Inhibits renal tubular secretion of creatinine, SCr "falsely" increases ✓ May cause neural tube defects if taken at the time of conception ✓ Higher barrier to resistance than EVG or RAL ✓ *BID dosing if heavily tx-experienced, INSTI resistant, or given w enzyme inducers ✓ High efficacy in those with baseline HIV RNA > 100,000 copies/mL ✓ C/I: Dofetilide, fampridine
		Elvitegravir	**EVG**	*Vitekta*	85, 150 mg tab	Stribild Genvoya	85-150 mg po QD boosted *w/ food*	**Well Tolerated** • **Hyperlipidemia** • D/N • Headache	**CYP3A4 substrate** **induces 2C9 (EVG)** **Inhibits CYP3A4, P-gp, BCRP, OATP1B1/3, OCT2, MATE1 (cobi)**	✓ Better absorption w food/snack ✓ Coformulated with PK booster cobicistat ✓ Cobicistat inhibits tubular secretion of creatinine w/o affecting glomerular function (if >35.36umol/L need renal monitoring) ✓ Lower genetic barrier to resistance than PIs or DTG ✓ C/I: Eplereone, Lovastatin
		Raltegravir	**RAL**	***Isentress & Isentress HD***	400 mg tab 600mg tab (HD)	None	400 mg po BID 1200 mg po QD new study QDMRK	**Well Tolerated** • Rash • N/D, Headache • ***Insomnia*** ↑ LFTs, ↑ CK, rhabdo	**No CYP3A4 inx** **UGT1A1 substrate**	✓ Take without regards to meals ✓ 1st to market INSTI → Being studied: 1200 mg po QD (given as 2X 600mg) ✓ Aluminum or Magnesium antacids reduce abs'n RAL (Can take Ca Antacids if on Isentress, *NOT Isentress-HD*) ✓ Lower genetic barrier to resistance than PIs or DTG ✓ Avoid strong inducers of UGT (ie carbamazepine)

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Class		Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
Non-nucleoside RT Inhibitors - NNRTI	**NNRTI** **__vir__** **MOA**: NNRTIs bind allosterically in a pocket located near the catalytic site in the palm domain of the p66 subunit site of the Reverse Transcriptase (RT) enzyme **Resistance**: Low genetic barrier to resistance with first generation (EFV ,NVP) , but second generation often still active depending upon genotype.	***Doravirine***	**DOR**	*Pifeltro*	100mg tab	Delstrigo TDF 1 QD	100mg po OD	Well tolerated Common SE • Headache • Diarrhea, Ab pain • Abnormal Dreams	**Cyp3A4 Substrate**	✓ Take BID if using with rifabutin ✓ Taken without regards to food ✓ Favourable lipid profile – consider for high cardiac risk ✓ Avoid use with Strong inducers of CYP3A4 (ie Carbamazepine, rifampin) ✓ C/I: carbamazepine, oxcarbazepine, phenobarbital, phenytoin, enzalutamide, rifampin, rifapentine, mitotane, St.John's wort
		Efavirenz	**EFV**	*Sustiva*	600 mg tab 50, 200 mg cap	Atripla TDF 1 QD	600 mg po QD *avoid fatty meals on empty stomach* *(inc abs'n leading to s/e)*	**CNS S/E** 52% • Dizziness, vivid dreams • Insomnia, somnolence • Impaired concentration • **Hyperlipidemia** • **Rash 26%** (can treat through it mostly)	**CYP3A4 & 2B6 Substrate** **Potent inducer of CYP3A4,2B6, UGT1A1** **Inhibitor of CYP2C9/2C19/3A4** **↑ [Cocaine]** **↓ [conc] of:** • Benzos (-olam are issues, -pams are ok) • most opioids	✓ Let MD know if history of psych illness → should avoid this med ✓ Vivid dreams bothersome to some, enjoyable to some other ✓ CNS s/e worst after 1st or 2nd dose, often improve in 2-4 weeks ✓ Methadone: monitor for symptoms of **opioid withdrawal** ✓ May cause false +ve cannabinoid test ✓ Pregnancy: birth defects reported in primate studies but no evidence of ↑ risk in human studies; screening for antenatal/postpartum depression recommended ✓ C/I: St. John's wort, elbasavir/grazoprevir, cisapride, midazolam, triazolam, pimozide, ergot ✓ Inducers of CYP3A4 will decrease serum concentration of EFV; EFV may decrease concentrations of CYP3A4 substrates
		Etravirine	**ETR**	*Intelence*	100, 200 mg tab	None	200 mg po BID or 400 mg po QD *w/ food*	• **Rash 9%** • Dyslipidemia • Nausea • Rhabdomyolysis uncommon	**CYP3A4, 2C9, 2C19 substrate** **Weak inducer of CYP2B6/ 3A4** **Weak Inhibitor of 2C9/ 2C19**	✓ Tabs are large: dissolve readily in water for liquid dosing, however whole tablet is chalky, large and often difficult to swallow. ✓ Severe rash reported ✓ C/I: ombitasvir/paritprevir/ritonavir and dasabuvir regimens
		Nevirapine	**NVP**	*Viramune*	200 mg IR tab 400 mg SR tab	None	200 mg QD X 14 days then 200 mg po BID OR 400mg XR QD	• **Rash 37%** • Hepatic failure • Fever • Nausea	**CYP3A4 substrate** **Potent inducer of CYP2B6/ 3A4**	✓ Black Box: severe rash & hepatotoxicity. AVOID if CD4>250 (women) or 400 cells/mm3 (male) ✓ hypersensitivity → can treat through rash, but if with fever and elevated LFTs = sign of hypersensitivity, d/c ✓ C/I: St. John's wort; avoid Strong inducers of CYP3A4 (Carbamazepine) ✓ Lead-in phase to reduce rash, occurs in 1st 6 wks, more in women… also drug is auto inducer (will reduce its own level) ✓ XR version (400 mg QD) more common
		Rilpivirine	**RPV**	*Edurant*	25 mg tab	Complera TDF 1 QD Odefsey TAF 1 QD Juluca 1 QD Cabenuva IM q1-2 months	25 mg po QD *w/ food ++* *monthly IM injection (with cabotegravir/ Cabenuva)*	• Rash 3% • Headache 3% • Insomnia • Depression 8% • Hyperlipidemia • Hepatotoxicity	**CYP3A4 Substrate** **↓ [Edurant] with:** Inducers of CYP3A Drugs ↑ pH	✓ Among smallest HIV tablets ✓ Best absorbed with a good meal (350-500 calories) ✓ PPI contraindicated, H-2 blockers need dose reduction. ✓ Favorable lipid profile ✓ Lower virologic efficacy, **not** suggested for VL > 100,000 & CD4 < 200 ✓ Can exacerbate psych symptoms ✓ QTc prolongation (dose related) ✓ Available as long-acting q1-2 monthly injectable with cabotegravir (CAB): 900 mg IM initiation, then 600 mg IM monthly/900 mg IM q2months

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Class		Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
Protease Inhibitors - PI	**Protease Inhibitor** **____navir** Class S/E: Hyperlipidemia MOA: High genetic barrier to resistance when boosted **1st gen PIs not used usually:** Fosamprenavir **FPV** *(Telzir)* Indinavir **IDV** *(Crixivan)* Nelfinavir **NFV** *(Viracept)* Saquinqvir **SQV** *(Invirase)* Tipranavir **TPV** *(Aptivus)*	***Ritonavir*** ***PK booster***	**RTV**	*Norvir*	100 mg tab 80 mg/mL oral	None	100-200 po/day	• Bitter aftertaste • Numbness around mouth at HIV doses • N/V/D • ↑ LFTs, ↑ TG • Hyperlipidemia	**Inducer of:** • **1A2, 2B6, 2C9, 2C19, UGT** **Inhibitor of:** • **3A4** strong **2D6, 2C8,**	✓ Black Box: many drug interactions → life threatening ✓ Extremely strong inhibition 3A4, P-GP and other transporters ✓ HIV activity at higher doses but toxicity & inx (not used for HIV treatment) ✓ 100 mg per dose to boost (e.g. if using with BID drug, give 100 mg BID) ✓ Fluorinated steroids (even inhaled, injected, topical) can lead to Cushing's syndrome
		Darunavir	**DRV**	*Prezista*	*Prezista*: 600, 800 mg tab *Prezcobix*: 800 mg + 150 mg COB tab	Prezcobix w cobicistat 1 QD Symtuza w cobicistat 1 QD	600 mg po BID or 800 mg po QD *w/ food* + RTV 100 mg QD-BID or cobicistat 150 mg QD	• **Rash 10%** • Headache • N/D • ↑ amylase • Hepatotoxic • Kidney stones?	**CYP3A4 Substrate/ Inhibitor** **CYP 2C9 inducer** Failure of contraceptives	✓ Currently highest prescribed PI: 2nd Gen PI ✓ Works in those who are resistant to other PIs ✓ Cobicistat will cause tubular creatinine reabsorption → SCr "pseudo" rise of 10-30 mmol/L from pts normal baseline ✓ Needs RTV or COBI boosting ✓ When boosted with RTV: 800 QD + 100 mg RTV for naïve, [600 mg + 100 RTV] BID for experienced ✓ Contains ***Sulfa*** moiety ✓ Avoid with use of drugs that depend on CYP3A4 metabolism and has narrow therapeutic window (ie Alfuzosin)
		Atazanavir	**ATV**	*Reyataz*	*Reyataz*: 150, 200, 300mg tab *Evotaz*: 300 mg + 150 mg COB tab	Evotaz w cobicistat	300 mg po QD boosted w RTV 100 mg or cobicistat 150 mg 400 mg po QD unboosted *w/ food* (>390 cals)	• **Kidney stone** 10 fold inc • Increased billi 60% (cosmetic, not harmful) • D/N/Abd pain • Headache 6% • Rash 20%	**CYP3A4 substrate** inducers/inhibitors of 3A4 will interact Drugs inc pH	✓ 2X150 mg (300 mg) + RTV 100 mg daily (TDF increases excretion of ATZ) ✓ 2X200 mg (400 mg) unboosted with Kivexa (needs RTV boost w others) ✓ Increased QTc, PR, more torsades ✓ Jaundice as result of increased direct bilirubin → not harmful, pt may decide to switch for cosmetic reason ✓ Absorption reduced when taken with H2Ra and PPI ✓ H2RA: Unboosted→ ATV≥2 hrs before or ≥ 10 hrs after Boosted → same time or >10 hrs after H2RA ✓ PPI: Unboosted →not recommended for co-administration, Boosted → ≥ 12 hrs after PPI ✓ Consider avoiding in CKD
		Lopinavir */ RTV*	LPV	*Kaletra*	200 mg + 50 mg RTV tab	Kaletra 4 QD or 2 BID	400 mg po BID 800 mg po QD	• **Diarrhea** 24% • N • ↑ LFTs, billi, Lipids, MI	**CYP3A4 Substrate/ Inhibitor** **Many** ↑ [benzos] Fentanyl Phenytoin	✓ Dangerous (deadly) interaction with fentanyl ✓ Unpredictable interaction with phenytoin → RTV inhibitor, LPV inducer of CYP. Unpredictable pheny level (unpredictable) ✓ +++ diarrhea, worse with q24h ✓ May need higher doses if tx experienced or later in pregnancy ✓ May have Cardiac risk

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Class	Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
CCR-5 Co Receptor Antagonists	***Maraviroc***	MVC	*Celsentri*	150, 300 mg tab	None	150-600 mg po BID Standard: 300mg BID with or without food	• **cough** [13] • **Rash** [10%], Abdo pain • Dizziness, myalgia • Ortho hypo, syncope • Upper resp infection	CYP3A4, P-gp substrate inducers/inhibitors of 3A4 or P-gp will interact	✓ Black Box: hepatotoxicity, systemic allergic reaction ✓ Used later in tx only for CCR-5-tropic HIV virus, cannot use for CXCR-4-tropic virus which is seen more and more in advance dx ✓ Avoid: Rifapentine, Dasabuvir + Ombitasvir/Paritaprevir/RTV
Fusion Inhibitor	***Enfuvirtide***	ENF	*Fuzeon*	90 mg vial	None	90 mg SC BID	• Inj site reaction[~100% pt] • Bacterial pneumonia • Hypersensitivity[<1%]	Neither inducer or inhibitor of CYP enzymes	✓ Was historically used in era between 1st and 2nd generation PIs ✓ Unstable drug, dose needs to be prepared before administering each dose ✓ No cross resistance with other ARVs
Entry Inhibitor	***Ibalizumab-uiyk***	IBA	*Trogarzo*	*150mg/mL vial*	None	2000mg IV single dose then, 800mg Q2W	• Dizziness • Diarrhea, Nausea • Skin Rash	Neither inducer or inhibitor of CYP enzymes	✓ Indication: Treatment of HIV with combination of other ARV in heavily experienced patients with multidrug resistant infection failing current therapy ✓ Infused over 15-30 minutes (Loading dose no less than 30 minutes) ✓ Each 2 mL vial delivers 1.33mL containing 200mg of IBA ✓ If maintenance dose missed (>3 days) then loading dose needs to be given again ✓ No cross resistance with other ARVs ✓ **Not Approved in Canada**
gp120 Attachment Inhibitor	***Fostemsavir***	FTR	*Rukobia*	*600 mg tab*	None	600 mg BID with or without food	• Headache • Skin Rash • Micturition Urgency • N/V/D • Fatigue	CYP3A4 (Partial), P-gp, BCRP substrate Strong CYP3A4 inducers will interact; fostemsavir inhibits OATP1B1/3, BCRP	✓ Indication: Treatment of HIV in combination with other ARV in heavily treatment experienced HIV patients with multi-drug resistant HIV-1 failing current ARV due to resistance, intolerance or safety considerations ✓ Prodrug of small molecule Temsavir ✓ BRIGHTE study 96 wks (Ackerman et al. AIDS 2021;35:1061-72.) ✓ **Contraindicated** with strong CYP3A4 inducers (anticonvulsants, mitotane, enzalutamide, rifampin, St. John's wort)

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Class	Generic		Brand	Preparations	Combo Pill	Dosing	Side Effects	Drug Interactions	Comments
Capsid inhibitor	***Lenacapavir***	**LEN**	*Sunlenca*	*300 mg tab* *309 mg/mL (1.5 mL vials)*	None	Initiation: Day 1 & 2: 600 mg po daily Day 8: 300 mg po Day 15: 927 mg SC Maintenance: 927 mg q6mo	• Injection site reactions • nausea	**Substrate of CYP3A4, P-gp, UGT1A1.** Strong inducers of CYP3A4/P-gp/UGT1A1 are contraindicated; not recommended with moderate CYP3A4 and P-gp inducers, and not with strong inhibitors of CYP3A4/P-gp/UGT1A1 together. Moderate CYP3A4 inhibitor.	✓ Indication: Treatment of HIV in combination with other ARV in adults with multi-drug resistant HIV-1 for whom it is otherwise not possible to construct a suppressive antiviral regimen ✓ **Contraindicated** with strong CYP3A4/P-gp/UGT1A1 inducers (anticonvulsants, rifampin, St. John's wort)

OBT = optimized background therapy

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