Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents

Downloaded from http://aidsinfo.nih.gov/guidelines on 3/17/2013

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 1 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum/ Intracellular Half-Lives	Adverse Events (Also see Table 13.)
Abacavir (ABC)/ Ziagen Generic available in tablet formulation **Also available as a component of fixed-dose combinations:**	Ziagen • 300 mg tablets • 20 mg/mL oral solution	Ziagen 300 mg BID or 600 mg once daily Take without regard to meals	Metabolized by alcohol dehydrogenase and glucuronyl transferase Renal excretion of metabolites 82% Dosage adjustment for ABC is recommended in patients with hepatic insufficiency (see Appendix B, Table 7)	1.5 hours/ 12–26 hours	• HSRs: Patients who test positive for HLA-B*5701 are at highest risk. HLA screening should be done before initiation of ABC. Re-challenge is not recommended. • Symptoms of HSR may include fever, rash, nausea, vomiting, diarrhea, abdominal pain, malaise, or fatigue or respiratory symptoms such as sore throat, cough, or shortness of breath. • Some cohort studies suggest increased risk of MI with recent or current use of ABC, but this risk is not substantiated in other studies.
Trizivir ABC with ZDV + 3TC	Trizivir (ABC 300 mg + ZDV 300 mg + 3TC 150 mg) tablet	Trizivir 1 tablet BID			
Epzicom ABC with 3TC	Epzicom (ABC 600 mg + 3TC 300 mg) tablet	Epzicom 1 tablet once daily			
Didanosine (ddI)/ Videx EC Generic available; dose same as Videx EC	Videx EC 125, 200, 250, and 400 mg capsules Videx 10 mg/mL oral solution	**Body weight ≥60kg:** 400 mg once daily *With TDF:* 250 mg once daily **Body weight <60kg:** 250 mg once daily *With TDF:* 200 mg once daily Take 1/2 hour before or 2 hours after a meal Note: Preferred dosing with oral solution is BID (total daily dose divided into 2 doses)	Renal excretion 50% Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	1.5 hours/ >20 hours	• Pancreatitis • Peripheral neuropathy • Retinal changes, optic neuritis • Lactic acidosis with hepatic steatosis +/- pancreatitis (rare but potentially life-threatening toxicity) • Nausea, vomiting • Potential association with non-cirrhotic portal hypertension, in some cases, patients presented with esophageal varices • One cohort study suggested increased risk of MI with recent or current use of ddI, but this risk is not substantiated in other studies. • Insulin resistance/diabetes mellitus

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 2 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum/ Intracellular Half-Lives	Adverse Events (Also see Table 13.)
Emtricitabine (FTC)/ Emtriva **Also available as a component of fixed-dose combinations:**	Emtriva • 200 mg hard gelatin capsule • 10 mg/mL oral solution	Emtriva *Capsule:* 200 mg once daily *Oral solution:* 240 mg (24 mL) once daily Take without regard to meals	Renal excretion 86% Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	10 hours/ >20 hours	• Minimal toxicity • Hyperpigmentation/skin discoloration • Severe acute exacerbation of hepatitis may occur in HBV-co-infected patients who discontinue FTC.
Atripla FTC with EFV + TDF	Atripla (FTC 200 mg + EFV 600 mg + TDF 300 mg) tablet	Atripla 1 tablet at or before bedtime Take on an empty stomach to reduce side effects.			
Complera FTC with RPV+TDF	Complera (FTC 200 mg + RPV 25 mg + TDF 300 mg) tablet	Complera 1 tablet once daily with a meal			
Stribild FTC with EVG + COBI + TDF	Stribild (FTC 200 mg + EVG 150 mg + COBI 150 mg + TDF 300 mg) tablet	Stribild 1 tablet once daily with food			
Truvada FTC with TDF	Truvada (FTC 200 mg + TDF 300 mg) tablet	Truvada 1 tablet once daily			

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 3 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum/ Intracellular Half-Lives	Adverse Events (Also see Table 13.)
Lamivudine (3TC)/ Epivir Generic available in tablet formulation **Also available as a component of fixed-dose combinations:**	Epivir • 150 and 300 mg tablets • 10 mg/mL oral solution	Epivir 150 mg BID or 300 mg once daily Take without regard to meals	Renal excretion 70% Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	5–7 hours/ 18–22 hours	• Minimal toxicity • Severe acute exacerbation of hepatitis may occur in HBV-co-infected patients who discontinue 3TC.
Combivir 3TC with ZDV Generic available	Combivir (3TC 150 mg + ZDV 300 mg) tablet	Combivir 1 tablet BID			
Epzicom 3TC with ABC	Epzicom (3TC 300 mg + ABC 600 mg) tablet	Epzicom 1 tablet once daily			
Trizivir 3TC with ZDV+ABC	Trizivir (3TC 150 mg + ZDV 300 mg + ABC 300 mg) tablet	Trizivir 1 tablet BID			
Stavudine (d4T)/ Zerit Generic available	Zerit • 15, 20, 30, and 40 mg capsules • 1 mg/mL oral solution	**Body weight ≥60 kg:** 40 mg BID **Body weight <60 kg:** 30 mg BID Take without regard to meals Note: WHO recommends 30 mg BID dosing regardless of body weight.	Renal excretion 50% Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	1 hours/ 7.5 hours	• Peripheral neuropathy • Lipoatrophy • Pancreatitis • Lactic acidosis/severe hepatomegaly with hepatic steatosis (rare but potentially life-threatening toxicity) • Hyperlipidemia • Insulin resistance/diabetes mellitus • Rapidly progressive ascending neuromuscular weakness (rare)

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 4 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum/ Intracellular Half-Lives	Adverse Events (Also see Table 13.)
Tenofovir Disoproxil Fumarate (TDF)/ Viread **Also available as a component of fixed-dose combinations:**	Viread • 150, 200, 250, 300 mg tablets • 40 mg/g oral powder	Viread 300 mg once daily or 7.5 scoops once daily Take without regard to meals Mix oral powder with 2–4 ounces of soft food that does not require chewing (e.g., applesauce, yogurt). **DO NOT MIX ORAL POWDER WITH LIQUID.**	Renal excretion Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	17 hours/ >60 hours	• Renal insufficiency, Fanconi syndrome, proximal tubulopathy • Osteomalacia, decrease in bone mineral density • Potential decrease in bone mineral density • Severe acute exacerbation of hepatitis may occur in HBV-co-infected patients who discontinue TDF. • Asthenia, headache, diarrhea, nausea, vomiting, and flatulence
Atripla TDF with EFV+FTC	Atripla (TDF 300 mg + EFV 600 mg + FTC 200 mg) tablet	Atripla 1 tablet at or before bedtime Take on an empty stomach to reduce side effects			
Complera TDF with RPV+FTC	Complera (TDF 300 mg + RPV 25 mg + FTC 200 mg) tablet	Complera 1 tablet once daily Take with a meal			
Stribild TDF with EVG+COBI+ FTC	Stribild (TDF 300 mg + EVG 150 mg + COBI 150 mg + FTC 200 mg) tablet	Stribild 1 tablet once daily with food			
Truvada TDF with FTC	Truvada (TDF 300 mg + FTC 200 mg) tablet	Truvada 1 tablet once daily Take without regard to meals			

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 5 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum/ Intracellular Half-Lives	Adverse Events (Also see Table 13.)
Zidovudine (ZDV)/ Retrovir Generic available **Also available as a component of fixed-dose combinations**	Retrovir • 100 mg capsule • 300 mg tablet (generic only) • 10 mg/mL intravenous solution • 10 mg/mL oral solution	Retrovir 300 mg BID or 200 mg TID Take without regard to meals	Metabolized to GAZT Renal excretion of GAZT Dosage adjustment in patients with renal insufficiency is recommended (see Appendix B, Table 7).	1.1 hours/ 7 hours	• Bone marrow suppression: macrocytic anemia or neutropenia • Nausea, vomiting, headache, insomnia, asthenia • Nail pigmentation • Lactic acidosis/severe hepatomegaly with hepatic steatosis (rare but potentially life-threatening toxicity) • Hyperlipidemia • Insulin resistance/diabetes mellitus • Lipoatrophy • Myopathy
Combivir ZDV with 3TC Generic available	Combivir (ZDV 300 mg + 3TC 150 mg) tablet	Combivir 1 tablet BID			
Trizivir ZDV with 3TC+ ABC	Trizivir (ZDV 300 mg + 3TC 150 mg + ABC 300 mg) tablet	Trizivir 1 tablet BID			

Key to Abbreviations: 3TC = lamivudine, ABC = abacavir, BID = twice daily, COBI = cobicistat, d4T = stavudine, ddI = didanosine, EC = enteric coated, EFV = efavirenz, EVG = elvitegravir, FTC = emtricitabine, GAZT = azidothymidine glucuronide, HBV = hepatitis B virus, HLA = human leukocyte antigen, HSR = hypersensitivity reaction, MI = myocardial infarction, RPV = rilpivirine, TDF = tenofovir disoproxil fumarate, TID = three times a day, WHO = World Health Organization, ZDV = zidovudine

Appendix B, Table 2. Characteristics of Non-Nucleoside Reverse Transcriptase Inhibitors* (Last updated February 12, 2013; last reviewed February 12, 2013) (page 1 of 2)

* Delavirdine (DLV) is not included in this table. Please refer to the DLV FDA package insert for related information.

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Adverse Events (Also see Table 13.)
Efavirenz (EFV)/ Sustiva **Also available as a component of fixed-dose combination:**	• 50 and 200 mg capsules • 600 mg tablet	600 mg once daily, at or before bedtime Take on an empty stomach to reduce side effects.	Metabolized by CYPs 2B6 and 3A4 CYP3A4 mixed inducer/inhibitor (more an inducer than an inhibitor)	40–55 hours	• Rash[a] • Neuropsychiatric symptoms[b] • Increased transaminase levels • Hyperlipidemia • False-positive results with some cannabinoid and benzodiazepine screening assays reported. • Teratogenic in non-human primates and potentially teratogenic in humans
Atripla EFV with TDF + FTC	(EFV 600 mg + FTC 200 mg + TDF 300 mg) tablet	1 tablet once daily, at or before bedtime			
Etravirine (ETR)/ Intelence	• 25, 100, and 200 mg tablets	200 mg BID Take following a meal.	CYP3A4, 2C9, and 2C19 substrate 3A4 inducer; 2C9 and 2C19 inhibitor	41 hours	• Rash, including Stevens-Johnson syndrome[a] • HSRs, characterized by rash, constitutional findings, and sometimes organ dysfunction, including hepatic failure, have been reported. • Nausea

Nevirapine (NVP)/ Viramune or Viramine XR
Generic available for 200 mg tablets
	• 200 mg tablet
	• 400 mg XR tablet
	• 50 mg/5 mL oral suspension
		200 mg once daily for 14 days (lead-in period); thereafter, 200 mg BID, or 400 mg (Viramune XR tablet) once daily
		Take without regard to meals
		Repeat lead-in period if therapy is discontinued for more than 7 days
		In patients who develop mild-to-moderate rash without constitutional symptoms, continue lead-in period until rash resolves but not longer than 28 days total.
			CYP450 substrate, inducer of 3A4 and 2B6; 80% excreted in urine (glucuronidated metabolites, <5% unchanged); 10% in feces	25–30 hours	• Rash, including Stevens-Johnson syndrome[a]
					• Symptomatic hepatitis, including fatal hepatic necrosis, has been reported:
					  • Rash reported in approximately 50% of cases
					  • Occurs at significantly higher frequency in ARV-naive female patients with pre-NVP CD4 counts >250 cells/mm^3 and in ARV-naive male patients with pre-NVP CD4 counts >400 cells/mm^3. NVP should not be initiated in these patients unless the benefit clearly outweighs the risk.

Appendix B, Table 2. Characteristics of Non-Nucleoside Reverse Transcriptase Inhibitors* (Last updated February 12, 2013; last reviewed February 12, 2013) (page 2 of 2)

* Delavirdine (DLV) is not included in this table. Please refer to the DLV FDA package insert for related information.

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in renal or hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Adverse Events (Also see Table 13.)
Rilpivirine (RPV)/ Edurant **Also available as a component of fixed-dose combination:**	• 25 mg tablet	25 mg once daily Take with a meal	CYP3A4 substrate	50 hours	• Rash[a] • Depression, insomnia, headache • Hepatotoxicity
Complera RPV with TDF + FTC	Complera (RPV 25 mg + TDF 300 mg + FTC 200 mg) tablet	1 tablet once daily with a meal			

Key to Abbreviations: ARV = antiretroviral, BID = twice daily, CYP = cytochrome P, DLV = delavirdine, EFV = efavirenz, ETR = etravirine, FDA = Food and Drug Administration, FTC = emtricitabine, HSR = hypersensitivity reaction, NNRTI = non-nucleoside reverse transcriptase inhibitor, NVP = nevirapine, RPV = rilpivirine, TDF = tenofovir disoproxil fumarate, XR = extended release

[a] Rare cases of Stevens-Johnson syndrome have been reported with most NNRTIs; the highest incidence of rash was seen with NVP.

[b] Adverse events can include dizziness, somnolence, insomnia, abnormal dreams, confusion, abnormal thinking, impaired concentration, amnesia, agitation, depersonalization, hallucinations, and euphoria. Approximately 50% of patients receiving EFV may experience any of these symptoms. Symptoms usually subside spontaneously after 2 to 4 weeks but may necessitate discontinuation of EFV in a small percentage of patients.

Appendix B, Table 3. Characteristics of Protease Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 1 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Storage	Adverse Events (Also see Table 13.)
Atazanavir (ATV)/ Reyataz	100, 150, 200, and 300 mg capsules	ARV-naive patients: 400 mg once daily, or (ATV 300 mg + RTV 100 mg) once daily With TDF or in ARV-experienced patients: (ATV 300 mg + RTV 100 mg) once daily With EFV in ARV-naive patients: (ATV 400 mg + RTV 100 mg) once daily **For recommendations on dosing with H2 antagonists and PPIs, refer to Table 16a.** Take with food	CYP3A4 inhibitor and substrate Dosage adjustment in patients with hepatic insufficiency is recommended. (see Appendix B, Table 7).	7 hours	Room temperature (up to 25ºC or 77ºF)	• Indirect hyperbilirubinemia • PR interval prolongation: First degree symptomatic AV block reported. Use with caution in patients with underlying conduction defects or on concomitant medications that can cause PR prolongation. • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia • Cholelithiasis • Nephrolithiasis • Skin rash (20%) • Serum transaminase elevations • Hyperlipidemia (especially with RTV boosting)
Darunavir (DRV)/ Prezista	75, 150, 300, 400, 600, and 800 mg tablets 100 mg/mL oral suspension	ARV-naive patients or ARV-experienced patients with no DRV mutations: (DRV 800 mg + RTV 100 mg) once daily ARV-experienced patients with at least one DRV mutation: (DRV 600 mg + RTV 100 mg) BID Unboosted DRV is **not** recommended. Take with food	CYP3A4 inhibitor and substrate	15 hours (when combined with RTV)	Room temperature (up to 25ºC or 77ºF)	• Skin rash (10%): DRV has a sulfonamide moiety; Stevens-Johnson syndrome, toxic epidermal necrolysis, acute generalized exanthematous pustulosis, and erythrema multiforme have been reported. • Hepatotoxicity • Diarrhea, nausea • Headache • Hyperlipidemia • Serum transaminase elevation • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Storage	Adverse Events (Also see Table 13.)
Fosamprenavir (FPV)/ Lexiva (a prodrug of amprenavir [APV])	• 700 mg tablet • 50 mg/mL oral suspension	ARV-naive patients: FPV 1400 mg BID, or (FPV 1400 mg + RTV 100–200 mg) once daily, or (FPV 700 mg + RTV 100 mg) BID PI-experienced patients (once-daily dosing **not** recommended): (FPV 700 mg + RTV 100 mg) BID With EFV: (FPV 700 mg + RTV 100 mg) BID, or (FPV 1400 mg + RTV 300 mg) once daily *Tablet:* Take without regard to meals (if not boosted with RTV tablet) *Suspension:* Take without food *FPV with RTV tablet:* Take with meals	APV is a CYP3A4 substrate, inhibitor, and inducer. Dosage adjustment in patients with hepatic insufficiency is recommended (see Appendix B, Table 7).	7.7 hours (APV)	Room temperature (up to 25ºC or 77ºF)	• Skin rash (12%–19%): FPV has a sulfonamide moiety. • Diarrhea, nausea, vomiting • Headache • Hyperlipidemia • Serum transaminase elevation • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia • Nephrolithiasis
Indinavir (IDV)/ Crixivan	100, 200, and 400 mg capsules	800 mg every 8 hrs Take 1 hour before or 2 hours after meals; may take with skim milk or low-fat meal With RTV: (IDV 800 mg + RTV 100–200 mg) BID Take without regard to meals	CYP3A4 inhibitor and substrate Dosage adjustment in patients with hepatic insufficiency is recommended (see Appendix B, Table 7).	1.5–2 hours	Room temperature (15º–30ºC/ 59º–86ºF) Protect from moisture	• Nephrolithiasis • GI intolerance, nausea • Hepatitis • Indirect hyperbilirubinemia • Hyperlipidemia • Headache, asthenia, blurred vision, dizziness, rash, metallic taste, thrombocytopenia, alopecia, and hemolytic anemia • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia

Appendix B, Table 3. Characteristics of Protease Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013) (page 3 of 5)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Storage	Adverse Events (Also see Table 13.)
Lopinavir + Ritonavir LPV/r)/ Kaletra	Tablets: (LPV 200 mg + RTV 50 mg), or (LPV 100 mg + RTV 25 mg) Oral solution: Each 5 mL contains (LPV 400 mg + RTV 100 mg) Oral solution contains 42% alcohol	LPV/r 400 mg/100 mg BID or LPV/r 800 mg/200 mg once daily Once-daily dosing is not recommended for patients with ≥3 LPV-associated mutations, pregnant women, or patients receiving EFV, NVP, FPV, NFV, carbamazepine, phenytoin, or phenobarbital. With EFV or NVP (PI-naive or PI-experienced patients): LPV/r 500 mg/125 mg tablets BID (Use a combination of two LPV/r 200 mg/50 mg tablets + one LPV/r 100 mg/25 mg tablet to make a total dose of LPV/r 500 mg/125 mg.) or LPV/r 533 mg/133 mg oral solution BID *Tablet*: Take without regard to meals *Oral solution*: Take with food	CYP3A4 inhibitor and substrate	5–6 hours	Oral tablet is stable at room temperature. Oral solution is stable at 2°–8°C (36°–46°F) until date on label and is stable for up to 2 months when stored at room temperature (up to 25ºC or 77ºF).	• GI intolerance, nausea, vomiting, diarrhea • Pancreatitis • Asthenia • Hyperlipidemia (especially hypertriglyceridemia) • Serum transaminase elevation • Hyperglycemia • Insulin resistance/diabetes mellitus • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia • PR interval prolongation • QT interval prolongation and torsades de pointes have been reported; however, causality could not be established.
Nelfinavir (NFV)/ Viracept	• 250 and 625 mg tablets • 50 mg/g oral powder	1250 mg BID or 750 mg TID Dissolve tablets in a small amount of water, mix admixture well, and consume immediately. Take with food	CYP2C19 and 3A4 substrate—metabolized to active M8 metabolite; CYP 3A4 inhibitor	3.5–5 hours	Room temperature (15º–30ºC/ 59º–86ºF)	• Diarrhea • Hyperlipidemia • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia • Serum transaminase elevation

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Storage	Adverse Events (Also see Table 13.)
Ritonavir (RTV)/ Norvir	• 100 mg tablet • 100 mg soft gel capsule • 80 mg/mL oral solution Oral solution contains 43% alcohol	As pharmacokinetic booster for other PIs: 100–400 mg per day in 1–2 divided doses (refer to other PIs for specific dosing recommendations) *Tablet*: Take with food *Capsule and oral solution:* To improve tolerability, take with food if possible.	CYP3A4 >2D6 substrate; potent 3A4, 2D6 inhibitor	3–5 hours	Tablets do not require refrigeration. Refrigerate capsules. Capsules can be left at room temperature (up to 25ºC or 77ºF) for up to 30 days. Oral solution should **not** be refrigerated; store at room temperature (20º–25ºC/ 68º–77ºF).	• GI intolerance, nausea, vomiting, diarrhea • Paresthesias (circumoral and extremities) • Hyperlipidemia (especially hypertriglyceridemia) • Hepatitis • Asthenia • Taste perversion • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia
Saquinavir (SQV)/ Invirase	• 500 mg tablet • 200 mg hard gel capsule	(SQV 1000 mg + RTV 100 mg) BID Unboosted SQV is **not** recommended. Take with meals or within 2 hours after a meal	CYP3A4 inhibitor and substrate	1–2 hours	Room temperature (15º–30ºC/ 59º–86ºF)	• GI intolerance, nausea, and diarrhea • Headache • Serum transaminase elevation • Hyperlipidemia • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia • PR interval prolongation • QT interval prolongation, torsades de pointes have been reported. Patients with pre-SQV QT interval >450 msec should not receive SQV (see Table 5b).

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Elimination	Serum Half-Life	Storage	Adverse Events (Also see Table 13.)
Tipranavir (TPV)/ Aptivus	• 250 mg capsule • 100 mg/mL oral solution	(TPV 500 mg + RTV 200 mg) BID Unboosted TPV is **not** recommended. *TPV taken with RTV **tablets**:* Take with meals *TPV taken with RTV **capsules** or **solution**:* Take without regard to meals	CYP P450 3A4 inducer and substrate Net effect when combined with RTV (CYP 3A4, 2D6 inhibitor)	6 hours after single dose of TPV/r	Refrigerate capsules. Capsules can be stored at room temperature (25ºC or 77ºF) for up to 60 days. Oral solution should **not** be refrigerated or frozen and should be used within 60 days after bottle is opened.	• Hepatotoxicity: Clinical hepatitis (including hepatic decompensation and hepatitis-associated fatalities) has been reported; monitor patients closely, especially those with underlying liver diseases. • Skin rash (3%–21%): TPV has a sulfonamide moiety; use with caution in patients with known sulfonamide allergy. • Rare cases of fatal and nonfatal intracranial hemorrhages have been reported. Risks include brain lesion, head trauma, recent neurosurgery, coagulopathy, hypertension, alcoholism, use of anti-coagulant or anti-platelet agents (including vitamin E). • Hyperlipidemia • Hyperglycemia • Fat maldistribution • Possible increased bleeding episodes in patients with hemophilia

Key to Abbreviations: APV = amprenavir, ARV = antiretroviral, ATV = atazanavir, AV = atrioventricular, BID = twice daily, CYP = cytochrome P, DRV = darunavir, EFV = efavirenz, FPV = fosamprenavir, GI = gastrointestinal, IDV = indinavir, LPV = lopinavir, LPV/r = lopinavir + ritonavir, msec = millisecond, NFV = nelfinavir, NVP = nevirapine, PI = protease inhibitor, PPI = proton pump inhibitor, RTV = ritonavir, SQV = saquinavir, TDF = tenofovir disoproxil fumarate, TID = three times a day, TPV = tipranavir

Appendix B, Table 4. Characteristics of Integrase Inhibitors (Last updated February 12, 2013; last reviewed February 12, 2013)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Serum Half-Life	Route of Metabolism	Adverse Events (Also see Table 13.)
Raltegravir (RAL)/ Isentress	400 mg tablet 25 and 100 mg chewable tablets	400 mg BID With rifampin: 800 mg BID Take without regard to meals	~9 hours	UGT1A1-mediated glucuronidation	• Rash, including Stevens-Johnson syndrome, HSR, and toxic epidermal necrolysis • Nausea • Headache • Diarrhea • Pyrexia • CPK elevation, muscle weakness, and rhabdomyolysis
Elvitegravir (EVG) Currently only available as a co-formulated product with: **Cobicistat** (COBI)/ TDF/FTC Stribild	(EVG 150 mg + COBI 150 mg + TDF 300 mg + FTC 200 mg) tablet	1 tablet once daily with food **Not recommended** for patients with baseline CrCl< 70 mL/min. See Appendix B, Table 7 for the equation for calculating CrCl. **Not recommended for use with other antiretroviral drugs**	~13 hours	EVG: CYP3A, UGT1A1/3 COBI: CYP3A, CYP2D6 (minor)	• Nausea • Diarrhea • New onset or worsening renal impairment • Potential decrease in bone mineral density • Severe acute exacerbation of hepatitis may occur in HBV-coinfected patients who discontinue FTC and TDF.

Key to Abbreviations: BID = twice daily, COBI = cobicistat, CPK = creatine phosphokinase, CrCl = creatinine clearance, EVG = elvitegravir, FTC = emtricitabine, HSR = hypersensitivity reaction, RAL = raltegravir, TDF = tenofovir, UGT = uridine diphosphate gluconyltransferase

Appendix B, Table 5. Characteristics of Fusion Inhibitor (Last updated January 29, 2008; last reviewed February 12, 2013)

Generic Name (Abbreviation)/ Trade Name	Formulations	Dosing Recommendations	Serum Half-Life	Elimination	Storage	Adverse Events (Also see Table 13.)
Enfuvirtide (T20)/ Fuzeon	• Injectable; supplied as lyophilized powder • Each vial contains 108 mg of T20; reconstitute with 1.1mL of sterile water for injection for delivery of approximately 90 mg/1 mL.	90 mg (1 mL) subcutaneously BID	3.8 hours	Expected to undergo catabolism to its constituent amino acids, with subsequent recycling of the amino acids in the body pool	Store at room temperature (up to 25ºC or 77ºF). Re-constituted solution should be refrigerated at 2ºC–8ºC (36ºF–46ºF) and used within 24 hours.	• Local injection site reactions (e.g., pain, erythema, induration, nodules and cysts, pruritus, ecchymosis) in almost 100% of patients • Increased incidence of bacterial pneumonia • HSR (<1% of patients): Symptoms may include rash, fever, nausea, vomiting, chills, rigors, hypotension, or elevated serum transaminases. Re-challenge is not recommended.

Key to Abbreviations: BID = twice daily, HSR = hypersensitivity reaction, T20 = enfuvirtide

Appendix B, Table 6. Characteristics of CCR5 Antagonist (Last updated March 27, 2012; last reviewed February 12, 2013)

Generic Name (Abbreviation)/ Trade Name	Formulation	Dosing Recommendations (For dosage adjustment in hepatic insufficiency, see Appendix B, Table 7.)	Serum Half-Life	Elimination	Adverse Events (Also see Table 13.)
Maraviroc (MVC)/ Selzentry	150 and 300 mg tablets	**150 mg BID** when given with drugs that are strong CYP3A inhibitors (with or without CYP3A inducers) including PIs (except TPV/r) **300 mg BID** when given with NRTIs, T20, TPV/r, NVP, RAL, and other drugs that are not strong CYP3A inhibitors or inducers **600 mg BID** when given with drugs that are CYP3A inducers, including EFV, ETR, etc. (without a CYP3A inhibitor) Take without regard to meals	14–18 hours	CYP3A4 substrate	• Abdominal pain • Cough • Dizziness • Musculoskeletal symptoms • Pyrexia • Rash • Upper respiratory tract infections • Hepatotoxicity, which may be preceded by severe rash or other signs of systemic allergic reactions • Orthostatic hypotension, especially in patients with severe renal insufficiency

Key to Abbreviations: BID = twice daily, CYP = cytochrome P, EFV = efavirenz, ETR = etravirine, MVC = maraviroc, NRTI = nucleoside reverse transcriptase inhibitor, NVP = nevirapine, PI = protease inhibitor, RAL = raltegravir, T20 = enfuvirtide, TPV/r = tipranavir + ritonavir

Appendix B, Table 7. Antiretroviral Dosing Recommendations in Patients with Renal or Hepatic Insufficiency (Last updated February 12, 2013; last reviewed February 12, 2013) (page 1 of 5)

See the reference section following Table 7 for creatinine clearance (CrCl) calculation formulas and criteria for Child-Pugh classification.

Antiretrovirals Generic Name (Abbreviation)/ Trade Name	Usual Daily Dose (Refer to Appendix B, Tables 1–6 for additional dosing information.)	Dosing in Renal Insufficiency (Including with chronic ambulatory peritoneal dialysis and hemodialysis)	Dosing in Hepatic Impairment
Nucleoside Reverse Transcriptase Inhibitors **Stribild should not be initiated in patients with CrCl <70 mL/min. Use of the following fixed-dose combinations is not recommended in patients with CrCl <50 mL/min: Atripla, Combivir, Stribild, Trizivir, or Epzicom. Use of Truvada is not recommended in patients with CrCl <30 mL/min.**			
Abacavir (ABC)/ Ziagen	300 mg PO BID	No dosage adjustment necessary	**Child-Pugh Score** — **Dose** 5–6 — 200 mg PO BID (use oral solution) >6 — Contraindicated
Didanosine EC (ddI)/ Videx EC	**Body weight ≥60 kg:** 400 mg PO once daily **Body weight <60 kg:** 250 mg PO once daily	**Dose (once daily)** **CrCl (mL/min)** — **≥60 kg** — **<60 kg** 30–59 — 200 mg — 125 mg 10–29 — 125 mg — 125 mg <10, HD, CAPD — 125 mg — use ddI oral solution	No dosage adjustment necessary
Didanosine oral solution (ddI)/ Videx	**Body weight ≥60 kg:** 200 mg PO BID or 400 mg PO once daily **Body weight <60 kg:** 250 mg PO once daily or 125 mg PO BID	**Dose (once daily)** **CrCl (mL/min)** — **≥60 kg** — **<60 kg** 30–59 — 200 mg — 150 mg 10–29 — 150 mg — 100 mg <10, HD, CAPD — 100 mg — 75 mg	No dosage adjustment necessary
Emtricitabine (FTC)/ Emtriva	200 mg oral capsule once daily or 240 mg (24 mL) oral solution once daily	**Dose** **CrCl (mL/min)** — **Capsule** — **Solution** 30–49 — 200 mg q48h — 120 mg q24h 15–29 — 200 mg q72h — 80 mg q24h <15 or on HD* — 200 mg q96h — 60 mg q24h *On dialysis days, take dose after HD session.	No dosage recommendation
Lamivudine (3TC)/ Epivir	300 mg PO once daily or 150 mg PO BID	**CrCl (mL/min)** — **Dose** 30–49 — 150 mg q24h 15–29 — 1 x 150 mg, then 100 mg q24h 5–14 — 1 x 150 mg, then 50 mg q24h <5 or on HD* — 1 x 50 mg, then 25 mg q24h *On dialysis days, take dose after HD session.	No dosage adjustment necessary

Appendix B, Table 7. Antiretroviral Dosing Recommendations in Patients with Renal or Hepatic Insufficiency (Last updated February 12, 2013; last reviewed February 12, 2013) (page 2 of 5)

See the reference section following Table 7 for creatinine clearance (CrCl) calculation formulas and criteria for Child-Pugh classification.

Antiretrovirals Generic Name (Abbreviation)/ Trade Name	Usual Daily Dose (Refer to Appendix B, Tables 1–6 for additional dosing information.)	Dosing in Renal Insufficiency (Including with chronic ambulatory peritoneal dialysis and hemodialysis)	Dosing in Hepatic Impairment
Stavudine (d4T)/ Zerit	**Body weight ≥60 kg:** 40 mg PO BID **Body weight <60 kg:** 30 mg PO BID	**Dose** **CrCl (mL/min)** **≥60 kg** **<60 kg** 26–50 20 mg q12h 15 mg q12h 10–25 or on HD* 20 mg q24h 15 mg q24h *On dialysis days, take dose after HD session.	No dosage recommendation
Tenofovir (TDF)/ Viread	300 mg PO once daily	**CrCl (mL/min)** **Dose** 30–49 300 mg q48h 10–29 300 mg twice weekly (every 72–96 hours) <10 and not on HD Not recommended On HD* 300 mg q7d *On dialysis days, take dose after HD session.	No dosage adjustment necessary
Emtricitabine (FTC) + **Tenofovir** (TDF)/ Truvada	1 tablet PO once daily	**CrCl (mL/min)** **Dose** 30–49 1 tablet q48h <30 or on HD Not recommended	No dosage recommendation
Zidovudine (AZT, ZDV)/ Retrovir	300 mg PO BID	**CrCl (mL/min)** **Dose** <15 or HD* 100 mg TID or 300 mg once daily *On dialysis days, take dose after HD session.	No dosage recommendation
Non-Nucleoside Reverse Transcriptase Inhibitors			
Delavirdine (DLV)/ Rescriptor	400 mg PO TID	No dosage adjustment necessary	No dosage recommendation; use with caution in patients with hepatic impairment.
Efavirenz (EFV)/ Sustiva	600 mg PO once daily, at or before bedtime	No dosage adjustment necessary	No dosage recommendation; use with caution in patients with hepatic impairment.
Efavirenz (EFV) + **Tenofovir** (TDF) + **Emtricitabine** (FTC)/ Atripla	1 tablet PO once daily	Not recommended for use in patients with CrCl <50 mL/min. Instead use the individual drugs of the fixed-dose combination and adjust TDF and FTC doses according to CrCl level.	
Etravirine (ETR)/ Intelence	200 mg PO BID	No dosage adjustment necessary	Child-Pugh Class A or B: No dosage adjustment Child-Pugh Class C: No dosage recommendation

Appendix B, Table 7. Antiretroviral Dosing Recommendations in Patients with Renal or Hepatic Insufficiency (Last updated February 12, 2013; last reviewed February 12, 2013) (page 3 of 5)

See the reference section following Table 7 for creatinine clearance (CrCl) calculation formulas and criteria for Child-Pugh classification.

Antiretrovirals Generic Name (Abbreviation)/ Trade Name	Daily Dose (Refer to Appendix B, Tables 1–6 for additional dosing information.)	Dosing in Renal Insufficiency (Including with chronic ambulatory peritoneal dialysis and hemodialysis)	Dosing in Hepatic Impairment
Non-Nucleoside Reverse Transcriptase Inhibitors, continued			
Nevirapine (NVP)/ Viramune or Viramune XR	200 mg PO BID or 400 mg PO once daily (using Viramune XR formulation)	Patients on HD: limited data; no dosage recommendation	Child-Pugh Class A: No dosage adjustment Child-Pugh Class B or C: Contraindicated
Rilpivirine (RPV)/ Edurant	25 mg PO once daily	No dosage adjustment necessary	Child-Pugh Class A or B: No dosage adjustment Child-Pugh Class C: No dosage recommendation
Rilpivirine (RPV) + **Tenofovir** (TDF) + **Emtricitabine** (FTC)/ Complera	1 tablet PO once daily	Not recommended for use in patients with CrCl <50 mL/min. Instead use the individual drugs of the fixed-dose combination and adjust TDF and FTC doses levels according to CrCl level.	Child-Pugh Class A or B: No dosage adjustment Child-Pugh Class C: No dosage recommendation
Protease Inhibitors			
Atazanavir (ATV)/ Reyataz	400 mg PO once daily or (ATV 300 mg + RTV 100 mg) PO once daily	No dosage adjustment for patients with renal dysfunction not requiring HD ARV-naive patients on HD: (ATV 300 mg + RTV 100 mg) once daily ARV-experienced patients on HD: ATV or RTV-boosted ATV not recommended	**Child-Pugh Class** — **Dose** B — 300 mg once daily C — Not recommended RTV boosting is **not** recommended in patients with hepatic impairment (Child-Pugh Class B or C).
Darunavir (DRV)/ Prezista	(DRV 800 mg + RTV 100 mg) PO once daily (ARV-naive patients only) or (DRV 600 mg + RTV 100 mg) PO BID	No dosage adjustment necessary	Mild-to-moderate hepatic impairment: No dosage adjustment Severe hepatic impairment: Not recommended
Fosamprenavir (FPV)/ Lexiva	1400 mg PO BID or (FPV 1400 mg + RTV 100–200 mg) PO once daily or (FPV 700 mg + RTV 100 mg) PO BID	No dosage adjustment necessary	PI-naive patients only: **Child-Pugh Score** — **Dose** 5–9 — 700 mg BID 10–15 — 350 mg BID PI-naive or PI-experienced patients: **Child-Pugh Score** — **Dose** 5–6 — 700 mg BID + RTV 100 mg once daily 7–9 — 450 mg BID + RTV 100 mg once daily 10–15 — 300 mg BID + RTV 100 mg once daily

Appendix B, Table 7. Antiretroviral Dosing Recommendations in Patients with Renal or Hepatic Insufficiency (Last updated February 12, 2013; last reviewed February 12, 2013) (page 4 of 5)

See the reference section following Table 7 for creatinine clearance (CrCl) calculation formulas and criteria for Child-Pugh classification.

Antiretrovirals Generic Name (Abbreviation)/ Trade Name	Daily Dose (Refer to Appendix B, Tables 1–6 for additional dosing information.)	Dosing in Renal Insufficiency (Including with chronic ambulatory peritoneal dialysis and hemodialysis)	Dosing in Hepatic Impairment
Protease Inhibitors, continued			
Indinavir (IDV)/ Crixivan	800 mg PO q8h	No dosage adjustment necessary	Mild-to-moderate hepatic insufficiency because of cirrhosis: 600 mg q8h
Lopinavir/ritonavir (LPV/r) Kaletra	400/100 mg PO BID or 800/200 mg PO once daily	Avoid once-daily dosing in patients on HD	No dosage recommendation; use with caution in patients with hepatic impairment.
Nelfinavir (NFV)/ Viracept	1250 mg PO BID	No dosage adjustment necessary	Mild hepatic impairment: No dosage adjustment Moderate-to-severe hepatic impairment: Do not use
Ritonavir (RTV)/ Norvir	As a PI-boosting agent: 100–400 mg per day	No dosage adjustment necessary	Refer to recommendations for the primary PI.
Saquinavir (SQV)/ Invirase	(SQV 1000 mg + RTV 100 mg) PO BID	No dosage adjustment necessary	Mild-to-moderate hepatic impairment: Use with caution Severe hepatic impairment: Contraindicated
Tipranavir (TPV)/ Aptivus	(TPV 500 mg + RTV 200 mg) PO BID	No dosage adjustment necessary	Child-Pugh Class A: Use with caution Child-Pugh Class B or C: Contraindicated
Integrase Inhibitors			
Raltegravir (RAL)/ Isentress	400 mg BID	No dosage adjustment necessary	Mild-to-moderate hepatic insufficiency: No dosage adjustment necessary Severe hepatic insufficiency: No recommendation
Elvitegravir (EVG)/ **Cobicistat** (COBI)/ **Tenofovir** (TDF)/ **Emtricitabine** (FTC)/ Stribild (only available as a co-formulated product)	1 tablet once daily	EVG/COBI/TDF/FTC **should not be initiated** in patients with CrCl <70 mL/min. Discontinue EVG/COBI/TDF/FTC if CrCl declines to <50 mL/min while patient is on therapy.	Mild-to-moderate hepatic insufficiency: No dosage adjustment necessary Severe hepatic insufficiency: Not recommended

Appendix B, Table 7. Antiretroviral Dosing Recommendations in Patients with Renal or Hepatic Insufficiency (Last updated February 12, 2013; last reviewed February 12, 2013) (page 5 of 5)

See the reference section following Table 7 for creatinine clearance (CrCl) calculation formulas and criteria for Child-Pugh classification.

Antiretrovirals Generic Name (Abbreviation)/ Trade Name	Daily Dose (Refer to Appendix B, Tables 1–6 for additional dosing information.)	Dosing in Renal Insufficiency (Including with chronic ambulatory peritoneal dialysis and hemodialysis)	Dosing in Hepatic Impairment
Fusion Inhibitor			
Enfuvirtide (T20)/ Fuzeon	90 mg subcutaneous BID	No dosage adjustment necessary	No dosage adjustment necessary
CCR5 Antagonist			
Maraviroc (MVC)/ Selzentry	The recommended dose differs based on concomitant medications and potential for drug-drug interactions. See Appendix B, Table 6 for detailed dosing information.	**CrCl <30 mL/min or on HD** Without potent CYP3A inhibitors or inducers: 300 mg BID; reduce to 150 mg BID if postural hypotension occurs With potent CYP3A inducers or inhibitors: Not recommended	No dosage recommendations. Concentrations will likely be increased in patients with hepatic impairment.

Key to Abbreviations: 3TC = lamivudine, ABC = abacavir, ARV = antiretroviral, ATV = atazanavir, AZT = zidovudine, BID = twice daily, CAPD = chronic ambulatory peritoneal dialysis, COBI = cobicistat, CrCl = creatinine clearance, CYP = cytochrome P, d4T = stavudine, ddI = didanosine, DLV = delavirdine, DRV = darunavir, EC = enteric coated, EFV = efavirenz, ETR = etravirine, EVG= elvitegravir, FPV = fosamprenavir, FTC = emtricitabine, HD = hemodialysis, IDV = indinavir, LPV/r = lopinavir/ritonavir, MVC = maraviroc, NFV = nelfinavir, NNRTI = non-nucleoside reverse transcriptase inhibitor, NRTI = nucleoside reverse transcriptase inhibitor, NVP = nevirapine, PI = protease inhibitor, PO = orally, RAL = raltegravir, RPV = rilpivirine, RTV = ritonavir, SQV = saquinavir, T20 = enfuvirtide, TDF = tenofovir, TID = three times daily, TPV = tipranavir, XR = extended release, ZVD = zidovudine

Creatinine Clearance Calculation	
Male: $\frac{(140 - \text{age in years}) \times (\text{weight in kg})}{72 \times (\text{serum creatinine})}$	Female: $\frac{(140 - \text{age in years}) \times (\text{weight in kg}) \times (0.85)}{72 \times (\text{serum creatinine})}$

Child-Pugh Score			
Component	**Points Scored**		
	1	**2**	**3**
Encephalopathy[a]	None	Grade 1–2	Grade 3–4
Ascites	None	Mild or controlled by diuretics	Moderate or refractory despite diuretics
Albumin	>3.5 g/dL	2.8–3.5 g/dL	<2.8 g/dL
Total bilirubin or	<2 mg/dL (<34 µmol/L)	2–3 mg/dL (34 µmol/L to 50 µmol/L)	>3 mg/dL (>50 µmol/L)
Modified total bilirubin[b]	<4 mg/dL	4–7 mg/dL	>7 mg/dL
Prothrombin time (seconds prolonged) or	<4	4–6	>6
International normalized ratio (INR)	<1.7	1.7–2.3	>2.3

[a] Encephalopathy Grades

Grade 1: Mild confusion, anxiety, restlessness, fine tremor, slowed coordination

Grade 2: Drowsiness, disorientation, asterixis

Grade 3: Somnolent but rousable, marked confusion, incomprehensible speech, incontinence, hyperventilation

Grade 4: Coma, decerebrate posturing, flaccidity

[b] Modified total bilirubin used for patients who have Gilbert's syndrome or who are taking indinavir or atazanavir

Child-Pugh Classification	Total Child-Pugh Score[c]
Class A	5–6 points
Class B	7–9 points
Class C	>9 points

[c] Sum of points for each component

Appendix B Table 8: Monthly Suggested Wholesale Price (SWP)[a] of Antiretroviral Drugs (Last updated February 12, 2013; last reviewed February 12, 2013) (page 1 of 3)

Antiretroviral Drug (Generic and Brand Names)	Strength	Dosing	Tabs/Capsules/mLs per Month	SWP[a] (Monthly)
Nucleoside Reverse Transcriptase Inhibitors (NRTIs)				
abacavir				
• generic	300 mg tab	2 tabs daily	60 tabs	$602.66
• Ziagen	300 mg tab	2 tabs daily	60 tabs	$670.37
• Ziagen	20 mg/mL soln	30 mL daily	900 mL	$674.60
didanosine delayed-release				
• generic	400 mg cap	1 cap daily	30 caps	$368.72
• Videx EC	400 mg cap	1 cap daily	30 caps	$478.08
emtricitabine				
• Emtriva	200 mg cap	1 cap daily	30 tabs	$574.14
• Emtriva	10 mg/mL soln	24 mL daily	680 mL (28-day supply)	$542.32
lamivudine				
• generic	300 mg tab	1 tab daily	30 tabs	$429.66
• Epivir	300 mg tab	1 tab daily	30 tabs	$498.89
• Epivir	10 mg/mL soln	30 mL daily	900 mL	$498.90
stavudine				
• generic	40 mg cap	1 cap twice daily	60 caps	$403.70
• Zerit	40 mg cap	1 cap twice daily	60 caps	$512.62
tenofovir				
• Viread	300 mg tab	1 tab daily	30 tabs	$998.80
zidovudine				
• generic	300 mg tab	1 tab twice daily	60 tabs	$360.97
• Retrovir	300 mg tab	1 tab twice daily	60 tabs	$557.83
Combination NRTI Products				
abacavir/lamivudine				
• Epzicom	600/300 mg tab	1 tab daily	30 tabs	$1,118.90
tenofovir/emtricitabine				
• Truvada	300/150 mg tab	1 tab daily	30 tabs	$1,467.97
zidovudine/lamivudine				
• generic	300/150 mg tab	1 tab twice daily	60 tabs	$931.61
• Combivir	300/150 mg tab	1 tab twice daily	60 tabs	$1,081.70
abacavir/zidovudine/ lamivudine				
• Trizivir	300/300/150 mg tab	1 tab twice daily	60 tabs	$1,839.66

Appendix B Table 8: Monthly Suggested Wholesale Price (SWP)[a] of Antiretroviral Drugs (Last updated February 12, 2013; last reviewed February 12, 2013) (page 2 of 3)

Antiretroviral Drug (Generic and Brand Names)	Strength	Dosing	Tabs/Capsules/mLs per Month	SWP[a] (Monthly)
Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)				
efavirenz • Sustiva	600 mg tab	1 tab daily	30 tabs	$785.90
etravirine • Intelence	200 mg tab	1 tab twice daily	60 tabs	$978.64
nevirapine • generic	200 mg tab	1 tab twice daily	60 tabs	$650.48
• Viramune	200 mg tab	1 tab twice daily	60 tabs	$723.08
• Viramune XR (nevirapine extended release)	400 mg tab	1 tab daily	30 tabs	$670.63
rilpivirine • Endurant	25 mg tab	1 tab daily	30 tabs	$804.38
Protease Inhibitors (PIs)				
atazanavir • Reyataz	150 mg cap[b]	2 caps daily	60 caps	$1,222.10
• Reyataz	200 mg cap	2 caps daily	60 caps	$1,222.10
• Reyataz	300 mg cap[b]	1 cap daily	30 caps	$1,210.56
darunavir • Prezista	400 mg tab[b]	2 tabs daily	60 tabs	$1,230.20
• Prezista	600 mg tab[b]	1 tab twice daily	60 tabs	$1,230.20
fosamprenavir • Lexiva	700 mg tab	2 tabs twice daily	120 tabs	$1,988.96
• Lexiva	700 mg tab	1 tab twice daily[b]	60 tabs	$994.48
• Lexiva	700 mg tab	2 tabs once daily[b]	60 tabs	$994.48
lopinavir/ritonavir • Kaletra	200 mg/50 mg tab	2 tabs twice daily or 4 tabs once daily	120 tabs	$871.36
• Kaletra	400 mg/100 mg per 5 mL soln	5 mL twice daily	300 mL	$871.34
ritonavir (total daily dose depends on concomitant PI) • Norvir	100 mg tab	1 tab once daily	30 tabs	$308.60
• Norvir	100 mg tab	1 tab twice daily	60 tabs	$617.20
• Norvir	100 mg tab	2 tabs twice daily	120 tabs	$1,234.40
saquinavir • Invirase	500 mg tab[b]	2 tabs twice daily	120 tabs	$1,088.84
tipranavir • Aptivus	250 mg cap[b]	2 caps twice daily	120 caps	$1,335.14

Appendix B Table 8: Monthly Suggested Wholesale Price (SWP)[a] of Antiretroviral Drugs (Last updated February 12, 2013; last reviewed February 12, 2013) (page 3 of 3)

Antiretroviral Drug (Generic and Brand Names)	Strength	Dosing	Tabs/Capsules/mLs per Month	SWP[a] (Monthly)
Integrase Strand Transfer Inhibitor (INSTI) (Please refer to Co-formulated Combination Antiretroviral Drugs for cost of elvitegravir/cobicistat/tenofovir/emtricitabine [Stribild])				
raltegravir • Isentress	400 mg tab	1 tab twice daily	60 tabs	$1,228.69
Fusion Inhibitor				
enfuviritide • Fuzeon	90 mg injection kit	1 injection twice daily	60 doses (1 kit)	$3,248.72
CR5 Antagonist				
maraviroc • Selzentry	150 mg tab	1 tab twice daily	60 tabs	$1,259.82
• Selzentry	300 mg tab	1 tab twice daily	60 tabs	$1,259.82
Co-formulated Combination Products as Complete Antiretroviral Regimens				
efavirenz/tenofovir/emtricitabine • Atripla	600/300/200 mg tab	1 tab daily	30 tabs	$2,253.88
rilpivirine/tenofovir/emtricitabine • Complera	25/300/200 mg tab	1 tab daily	30 tabs	$2,195.83
elvitegravir/cobicistat/tenofovir/emtricitabine • Stribild	150/150/300/200 mg tab	1 tab daily	30 tabs	$2,810.96

[a] SWP = Suggested Wholesale Price (source: AmerisourceBergen, accessed December 2012/January 2013) Note that this price may not represent the pharmacy acquisition price or the price paid by consumers.

[b] Should be used in combination with ritonavir. Please refer to Appendix B, Table 3 for ritonavir doses.

Key to Abbreviations: cap = capsule, DR = delayed release, EC = enteric coated, soln = solution, SWP = suggested wholesale price, tab = tablet, XR = extended release