

Appendix B, Table 1. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (NRTIs) (Updated January 10, 2011)

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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 Also available as:	<u>Ziagen</u> - 300-mg tablets - 20-mg/mL oral solution	<u>Ziagen</u> 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%	1.5 hrs/ 12–26 hrs	<ul style="list-style-type: none"> • <i>Hypersensitivity reactions (HSR)</i>: Patients positive for HLA-B*5701 are at highest risk. HLA screening should be done prior to initiation of ABC. Rechallenge 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 myocardial infarction (MI) with recent or current use of ABC, but this risk is not substantiated in other studies.
	<u>Trizivir</u> ABC 300 mg + ZDV 300 mg + 3TC 150 mg	<u>Trizivir</u> 1 tablet BID	Dosage adjustment for ABC recommended in patients with hepatic insufficiency (See Appendix B, Table 7.)		
	<u>Epzicom</u> ABC with 3TC	<u>Epzicom</u> ABC 600 mg + 3TC 300 mg	<u>Epzicom</u> 1 tablet once daily		
Didanosine (ddI)/ Videx EC (generic available; dose same as Videx EC)	<u>Videx EC</u> 125-, 200-, 250-, 400-mg capsules Buffered tablets (non-EC) no longer available <u>Videx</u> 10-mg/mL oral solution	Body weight ≥ 60kg: 400 mg once daily* <i>With TDF:</i> 250 mg once daily Body weight < 60kg: 250 mg once daily* <i>With TDF:</i> 200 mg once daily Take 1/2 hour before or 2 hours after a meal *Preferred dosing with oral solution is BID (total daily dose divided into 2 doses)	Renal excretion 50% Dosage adjustment in renal insufficiency recommended (See Appendix B, Table 7.)	1.5 hrs/ >20 hrs	<ul style="list-style-type: none"> • Pancreatitis • Peripheral neuropathy • Retinal changes, optic neuritis • Lactic acidosis with hepatic steatosis +/- pancreatitis (rare but potentially life-threatening toxicity) • Nausea, vomiting • Potential association with noncirrhotic portal hypertension, some cases 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
	Emtricitabine (FTC)/ Emtriva	<u>Emtriva</u> - 200-mg hard gelatin capsule - 10-mg/mL oral solution	<u>Emtriva</u> <i>Capsule:</i> 200 mg once daily <i>Oral solution:</i> 240 mg (24 mL) once daily Take without regard to meals		
Also available as:	<u>Atripla</u> FTC 200 mg + EFV 600 mg + TDF 300 mg	<u>Atripla</u> 1 tablet at or before bedtime Take on an empty stomach to reduce side effects			
<u>Truvada</u> FTC with TDF	<u>Truvada</u> FTC 200 mg + TDF 300 mg	<u>Truvada</u> 1 tablet once daily			

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Lamivudine (3TC)/ Epivir Also available as:	<u>Epivir</u> • 150-, 300-mg tablets • 10-mg/mL oral solution	<u>Epivir</u> 150 mg BID or 300 mg once daily Take without regard to meals	Renal excretion 70% Dosage adjustment in renal insufficiency recommended (See Appendix B, Table 7.)	5–7 hrs/ 18–22 hrs	<ul style="list-style-type: none"> Minimal toxicity Severe acute exacerbation of hepatitis may occur in HBV-coinfected patients who discontinue 3TC. 	
	<u>Combivir</u> 3TC with ZDV	<u>Combivir</u> 3TC 150 mg + ZDV 300 mg				<u>Combivir</u> 1 tablet BID
	<u>Epzicom</u> 3TC with ABC	<u>Epzicom</u> 3TC 300 mg + ABC 600 mg				<u>Epzicom</u> 1 tablet once daily
	<u>Trizivir</u> 3TC with ZDV+ABC	<u>Trizivir</u> 3TC 150 mg + ZDV 300 mg + ABC 300 mg				<u>Trizivir</u> 1 tablet BID
Stavudine (d4T)/ Zerit	<u>Zerit</u> • 15-, 20-, 30-, 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 *WHO recommends 30 mg BID dosing regardless of body weight.	Renal excretion 50% Dosage adjustment in renal insufficiency recommended (See Appendix B, Table 7.)	1 hr/ 7.5 hrs	<ul style="list-style-type: none"> 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) 	
Tenofovir Disoproxil Fumarate (TDF)/ Viread Also available as:	<u>Viread</u> 300-mg tablet	<u>Viread</u> 1 tablet once daily Take without regard to meals	Renal excretion Dosage adjustment in renal insufficiency recommended (See Appendix B, Table 7.)	17 hrs/ >60 hrs	<ul style="list-style-type: none"> Renal insufficiency, Fanconi syndrome Osteomalacia Potential decrease in bone mineral density Severe acute exacerbation of hepatitis may occur in HBV-coinfected patients who discontinue TDF. Asthenia, headache, diarrhea, nausea, vomiting, and flatulence 	
	<u>Atripla</u> TDF with EFV+FTC	<u>Atripla</u> TDF 300 mg + EFV 600 mg + FTC 200 mg				<u>Atripla</u> 1 tablet at or before bedtime Take on an empty stomach to reduce side effects
	<u>Truvada</u> TDF with FTC	<u>Truvada</u> TDF 300 mg + FTC 200 mg				<u>Truvada</u> 1 tablet once daily Take without regard to meals
Zidovudine (ZDV)/ Retrovir (generic available; dose same as retrovir) Also available as:	<u>Retrovir</u> • 100-mg capsules • 300-mg tablets • 10-mg/mL intravenous solution • 10-mg/mL oral solution	<u>Retrovir</u> 300 mg BID or 200 mg TID Take without regard to meals	Metabolized to GAZT Renal excretion of GAZT Dosage adjustment in renal insufficiency recommended (See Appendix B, Table 7.)	1.1 hrs/ 7 hrs	<ul style="list-style-type: none"> 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 	
	<u>Combivir</u> ZDV with 3TC	<u>Combivir</u> ZDV 300 mg + 3TC 150 mg				<u>Combivir</u> 1 tablet BID
	<u>Trizivir</u> ZDV with 3TC+ABC	<u>Trizivir</u> ZDV 300 mg + 3TC 150 mg + ABC 300 mg				<u>Trizivir</u> 1 tablet BID