

Appendix Table 2. Characteristics of Nucleoside Reverse Transcriptase Inhibitors (NRTIs)

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(Updated **November 3, 2008**)

Generic Name (abbreviation)/ Trade Name	Formulation	Dosing Recommendations	Food Effect	Oral Bio-availability	Serum half-life	Intracellular half-life	Elimination	Adverse Events
Abacavir (ABC) ZIAGEN TRIZIVIR - w/ ZDV+3TC EPZICOM - w/ 3TC	<u>ZIAGEN</u> 300mg tablets or 20mg/mL oral solution <u>TRIZIVIR</u> ABC 300mg + ZDV 300mg + 3TC 150mg <u>EPZICOM</u> ABC 600mg + 3TC 300mg	<u>ZIAGEN</u> 300mg BID or 600mg once daily <u>TRIZIVIR</u> 1 tablet BID <u>EPZICOM</u> 1 tablet once daily	Take without regard to meals; Alcohol increases abacavir levels 41%; abacavir has no effect on alcohol	83%	1.5 hours	12–26 hours	Metabolized by alcohol dehydrogenase and glucuronyl transferase. Renal excretion of metabolites 82% TRIZIVIR & EPZICOM not for patients with CrCl < 50 mL/min	<ul style="list-style-type: none"> • Hypersensitivity reaction that can be fatal, symptoms may include fever, rash, nausea, vomiting, malaise or fatigue, loss of appetite, respiratory symptoms such as sore throat, cough, shortness of breath • Lactic acidosis with hepatic steatosis (rare but potentially life-threatening toxicity with use of NNRTIs)
Didanosine (ddI) VIDEX EC, Generic didanosine enteric coated (dose same as VIDEX EC)	<u>VIDEX EC</u> 125, 200, 250, 400mg capsules Buffered tablets (non-EC) are no longer available.	<u>Body weight</u> ≥ 60kg : 400mg once daily <u>with TDF</u> : 250mg once daily < 60 kg : 250mg once daily <u>with TDF</u> : 200mg once daily	Levels decrease 55%; Take 1/2 hour before or 2 hours after meal	30–40%	1.5 hours	>20 hours	Renal excretion 50% Dosage adjustment in renal insufficiency (See Appendix Table 8)	<ul style="list-style-type: none"> • Pancreatitis • Peripheral neuropathy • Nausea • Lactic acidosis with hepatic steatosis is a rare but potentially life-threatening toxicity associated with use of NRTIs.
Emtricitabine (FTC) EMTRIVA ATRIPLA - w/ EFV+TDF TRUVADA - w/ TDF	<u>EMTRIVA</u> 200mg hard gelatin capsule and 10mg/mL oral solution <u>ATRIPLA</u> EFV 600mg + FTC 200mg + TDF 300mg <u>TRUVADA</u> FTC 200mg + TDF 300mg	<u>EMTRIVA</u> 200mg capsule once daily or 240mg (24 mL) oral solution once daily <u>ATRIPLA</u> 1 tablet once daily <u>TRUVADA</u> 1 tablet once daily	Take without regard to meals	93%	10 hours	>20 hours	Renal excretion Dosage adjustment in renal insufficiency (See Appendix Table 8) <u>ATRIPLA</u> - not for patients with CrCl < 50 mL/min <u>TRUVADA</u> - not for patients with CrCl < 30 mL/min	<ul style="list-style-type: none"> • Minimal toxicity • Lactic acidosis with hepatic steatosis (rare but potentially life-threatening toxicity with use of NRTIs.) • Hyper-pigmentation/skin discoloration
Lamivudine (3TC) EPIVIR COMBIVIR - w/ ZDV EPZICOM - w/ ABC TRIZIVIR - w/ ZDV+ABC	<u>EPIVIR</u> 150 or 300mg tablets or 10mg/mL oral solution <u>COMBIVIR</u> 3TC 150mg + ZDV 300mg <u>EPZICOM</u> 3TC 300mg + ABC 600mg <u>TRIZIVIR</u> 3TC 150mg + ZDV 300mg + ABC 300mg	<u>EPIVIR</u> 150mg BID or 300mg once daily <u>COMBIVIR</u> 1 tablet BID <u>EPZICOM</u> 1 tablet once daily <u>TRIZIVIR</u> 1 tablet BID	Take without regard to meals	86%	5–7 hours	18–22 hours	Renal excretion Dosage adjustment in renal insufficiency (See Appendix Table 8) COMBIVIR, TRIZIVIR & EPZICOM not for patients with CrCl < 50 mL/min	<ul style="list-style-type: none"> • Minimal toxicity • Lactic acidosis with hepatic steatosis (rare but potentially life-threatening toxicity with use of NRTIs)

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Stavudine (d4T) ZERIT	<u>ZERIT</u> 15, 20, 30, 40mg capsules or 1mg/mL oral solution	Body weight ≥ 60 kg: 40mg BID Body weight < 60 kg: 30mg BID Note: WHO recommends 30mg BID dosing regardless of body weight	Take without regard to meals	86%	1.0 hour	7.5 hours	Renal excretion 50% Dosage adjustment in renal insufficiency (See Appendix Table 8)	<ul style="list-style-type: none"> Peripheral neuropathy Lipodystrophy Pancreatitis Lactic acidosis with hepatic steatosis-higher incidence than w/ other NRTIs Hyperlipidemia Rapidly progressive ascending neuromuscular weakness (rare)
Tenofovir Disoproxil Fumarate (TDF) VIREAD ATRIPLA - w/ EFV+FTC TRUVADA - w/ FTC	<u>VIREAD</u> 300mg tablet <u>ATRIPLA</u> EFV 600mg + FTC 200mg + TDF 300mg <u>TRUVADA</u> TDF 300mg + FTC 200mg	<u>VIREAD</u> 1 tablet once daily <u>ATRIPLA</u> 1 tablet once daily <u>TRUVADA</u> 1 tablet once daily	Take without regard to meals	25% in fasting state; 39% with high-fat meal	17 hours	> 60 hours	Renal excretion Dosage adjustment in renal insufficiency (See Appendix Table 8) ATRIPLA- not for patients with CrCl < 50 mL/min TRUVADA - not for patients with CrCl < 30 mL/min	<ul style="list-style-type: none"> Asthenia, headache, diarrhea, nausea, vomiting, and flatulence Renal insufficiency,, Fanconi syndrome Potential for osteopenia Lactic acidosis with hepatic steatosis (rare but potentially life-threatening toxicity with use of NRTIs)
Zidovudine (AZT, ZDV) RETROVIR COMBIVIR - w/ 3TC TRIZIVIR- w/ 3TC+ABC	<u>RETROVIR</u> 100mg capsules, 300mg tablets, 10mg/mL intravenous solution, 10mg/mL oral solution <u>COMBIVIR</u> 3TC 150mg + ZDV 300mg <u>TRIZIVIR</u> 3TC 150mg + ZDV 300mg + ABC 300mg	<u>RETROVIR</u> 300mg BID or 200mg TID <u>COMBIVIR</u> 1 tablet BID <u>TRIZIVIR</u> 1 tablet BID	Take without regard to meals	60%	1.1 hours	7 hours	Metabolized to AZT glucuronide (GAZT). Renal excretion of GAZT Dosage adjustment in renal insufficiency (See Appendix Table 8) COMBIVIR & TRIZIVIR - not for patients with CrCl < 50 mL/min	<ul style="list-style-type: none"> Bone marrow suppression: macrocytic anemia or neutropenia; Gastrointestinal intolerance, headache, insomnia, asthenia; Lactic acidosis with hepatic steatosis (rare but potentially life-threatening toxicity associated with use of NRTIs)