

Supplementary Online Content

Thompson MA, Aberg JA, Cahn P, et al. Antiretroviral treatment of adult HIV infection: 2010 recommendations of the International AIDS Society–USA Panel. *JAMA*. 2010;304(3):321-333.

eBox. Strength of Recommendation and Quality of Evidence Rating Scale

eTable. Virologic Efficacy in Selected Randomized Comparative Studies of Treatment-Naive Patients, Published or Presented Since August 2008

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This supplementary material has been provided by the authors to give readers additional information about their work.

eBox. Strength of Recommendation and Quality of Evidence Rating Scale

Category, Grade	Definition
Strength of recommendation	
A	Strong evidence to support the recommendation
B	Moderate evidence to support the recommendation
C	Insufficient evidence to support a recommendation
Quality of evidence	
Ia	Evidence from 1 or more randomized controlled clinical trials published in the peer-reviewed literature
Ib	Evidence from 1 or more randomized controlled clinical trials presented in abstract form at peer-reviewed scientific meetings
IIa	Evidence from nonrandomized clinical trials or cohort or case-control studies published in the peer-reviewed literature
IIb	Evidence from nonrandomized clinical trials or cohort or case-control studies presented in abstract form at peer-reviewed scientific meetings
III	Recommendation based on the panel's analysis of the accumulated available evidence

Adapted from Gross et al, *Clin Infect Dis*, 1994.¹

eTable 1. Virologic Efficacy in Selected Randomized Comparative Studies of Treatment-Naive Patients, Published or Presented Since August 2008 ^a

Study and Description	No. of Patients	% of Patients with <50 HIV RNA copies/mL at 48 (**or 96) wk	Comments	Study design (open label or placebo-controlled)
ARTEMIS ²	689		Patients with HIV-1 RNA >100,000 copies/mL at baseline had higher response rate with darunavir/r (79%) than with lopinavir/r (67%).	Open label
Darunavir 800 mg once-daily and ritonavir 100 mg once daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily		84		
Lopinavir 800 mg and ritonavir 200 mg total daily dose once or twice daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily		78		
STARTMRK ³	566		No difference between regimens according to baseline HIV-1 RNA > and < 100,000 copies/mL.	Placebo-controlled
Raltegravir 400 mg twice daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily.		86		
Efavirenz 600 mg once-daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once daily.		82		
MERIT ⁴	721		<p>Patients screened for R5 HIV-1. Once-daily maraviroc arm discontinued; did not meet prespecified non-inferiority criteria. More patients on maraviroc discontinued for lack of efficacy but fewer discontinued for adverse events than those on efavirenz.</p> <p>More patients had HIV-1 RNA <50 copies/mL at week 48 on efavirenz than twice-daily maraviroc (69.3% vs 65.3%) Reanalysis with more sensitive viral tropism assay eliminated this difference⁴</p>	Placebo-controlled

Maraviroc 300 mg twice-daily plus zidovudine 300 mg and lamivudine 150 mg fixed-dose, twice-daily		65		
Efavirenz 600 mg once-daily plus zidovudine 300 mg and lamivudine 150 mg fixed-dose, twice-daily		69		
ACTG 5202 (final) ⁵	1857		No difference between abacavir/lamivudine- and tenofovir/emtricitabine-containing regimens for patients with baseline HIV-1 RNA <100,000 copies/mL,(contrary to ⁶)	Placebo-controlled
Abacavir 600 mg and lamivudine 300 mg fixed-dose, once-daily plus efavirenz 600 mg once-daily		88**		
Tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily plus efavirenz 600 mg once-daily		90**		
Abacavir 600 mg and lamivudine 300 mg fixed-dose, once-daily plus atazanavir 300 mg, ritonavir 100 mg once daily		87**		
Tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily plus atazanavir 300 mg and ritonavir 100 mg once daily		89**		
HEAT ⁷	688		No difference between patients with baseline HIV-1 RNA > 100,000 HIV-RNA copies/mL	Open label
Abacavir 600 mg and lamivudine 300 mg fixed-dose, once-daily plus lopinavir 800 mg and ritonavir 200 mg once-daily		68		
Tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily plus lopinavir 800 mg and ritonavir 200 mg once-daily		67		

ARTEN ⁸	569		Combined nevirapine end point	Open label
Nevirapine 200 mg twice-daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily		66%		
Nevirapine 400 mg once-daily tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily				
Atazanavir 300 mg and ritonavir 100 mg once-daily plus tenofovir 300 mg and emtricitabine 200 mg fixed-dose, once-daily		65% **		
ACTG 5142 ⁹	757		At time of failure resistance emerged more frequently in the nRTI-sparing group	Open label
Efavirenz 600 mg once-daily plus 2 nRTIs*		89		
Lopinavir 400 mg and ritonavir 100 mg twice-daily plus 2 nRTIs*		77		
Lopinavir 533 mg and ritonavir 133 mg twice-daily plus efavirenz 600 mg once-daily		83		
Efavirenz vs twice-daily lopinavir/r ¹⁰	189			
Efavirenz 600 mg once daily and zidovudine 300 mg and lamivudine fixed-dose, twice-daily.	95	70		Open label
Lopinavir 400 mg and ritonavir 100 mg twice-daily and zidovudine 300 mg and lamivudine fixed-dose, twice daily	94	53		
Once v twice daily lopinavir/r ¹¹	664		No difference by HIV-1 RNA < or > 100,000 copies/mL	Open label
Lopinavir 800 mg and ritonavir 200 mg once-daily and tenofovir 300 mg and emtricitabine 200 mg once-daily.	333	77		
Lopinavir 400 mg and ritonavir 100 mg twice daily and tenofovir 300 mg and emtricitabine 200 mg once daily.	331	76		

CASTLE ¹²	883		Percentage with HIV-1 RNA < 50 copies/mL was 8%-9% less in each treatment group in stratum with \geq 100,000 copies/mL; no substantial differences between groups in either viral load stratum Decreased response to lopinavir/r in lower CD4+ stratum	Open label
Atazanavir, 300 mg once-daily and ritonavir, 100 mg once-daily plus tenofovir 300 mg and emtricitabine 200 mg once-daily		78		
Lopinavir, 400 mg and ritonavir 100 mg twice-daily plus tenofovir 300 mg and emtricitabine 200 mg once-daily		76		
GEMINI ¹³	337		Results by viral load strata not reported	Open label
Saquinavir, 1000 mg and ritonavir 100 mg twice-daily plus tenofovir and emtricitabine once-daily		65		
Lopinavir 400 mg and ritonavir 100 mg twice-daily plus tenofovir and emtricitabine once-daily		64		

^a RCTs included were selected based on the following criteria: 1) RCTs were published in the peer reviewed literature since the 2008 guidelines¹⁴ and contained the necessary data (such as number of patients, percentage of patients with HIV RNA suppressed below 50 copies/ml of HIV plasma RNA at week 48, clearly defined study design.) 2) were presented at scientific conferences in abstract form after publication of the 2008 guidelines, and included the necessary data.

*The nRTIs (nucleoside or nucleotide analogue reverse transcriptase inhibitors) chosen were as follows: lamivudine (150 mg twice-daily or 300 mg once-daily) plus either zidovudine 300 mg twice daily, stavudine extended release (XR) 100 mg once-daily (75 mg for patients weighing less than 60 kg), or tenofovir 300 mg once-daily.

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eFigure. Data Sources and Process

