

Author(s): George Rutherford, Alice Spaulding

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Question: Should EFV vs NVP be used for initial ART (TB)?

Settings: Multiple settings

Quality assessment							Summary of findings				Quality	Importance
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	No of patients		Effect			
							EFV	NVP	Relative (95% CI)	Absolute		
Mortality (TB)												
4	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ¹	none	18/1282 (1.4%)	21/478 (4.4%)	RR 0.82 (0.35 to 1.89)	8 fewer per 1000 (from 29 fewer to 39 more)	⊕○○○ VERY LOW	CRITICAL
Serious adverse events (TB)												
2	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ¹	none	6/193 (3.1%)	6/222 (2.7%)	RR 1.14 (0.37 to 3.53)	4 more per 1000 (from 17 fewer to 68 more)	⊕○○○ VERY LOW	CRITICAL
Virologic response (TB)												
2	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	no serious imprecision	none	1109/1151 (96.4%)	268/320 (83.8%)	RR 1.07 (1.01 to 1.13)	59 more per 1000 (from 8 more to 109 more)	⊕⊕○○ LOW	CRITICAL
Adherence/tolerability/retention (TB)												
4	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	no serious imprecision	none	396/1249 (31.7%)	253/406 (62.3%)	RR 0.93 (0.58 to 1.5)	44 fewer per 1000 (from 262 fewer to 312 more)	⊕⊕○○ LOW	CRITICAL
Immunologic response (TB) (Better indicated by higher values)												
1	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ²	none	77	111	-	MD 36 higher (5.48 to 66.52 higher)	⊕○○○ VERY LOW	IMPORTANT

¹ Low number of events

² Only 1 study reported on this outcome.

Bibliography:

1. Boule A, Van Cutsem G, Cohen K, Hilderbrand K, Mathee S, Abrahams M, Goemaere E, Coetzee D, Maartens GT. Outcomes of nevirapine- and efavirenz-based antiretroviral therapy when coadministered with rifampicin-based antitubercular therapy. JAMA 2008; 300:530-9.
2. Manosuthi W, Mankatitham W, Lueangniyomkul A, Chimsuntorn S, Sungkanuparph S. Standard-dose efavirenz vs. standard-dose nevirapine in antiretroviral regimens among HIV-1 and tuberculosis co-infected patients who received rifampicin. HIV Med 2008; 9:294-99.
3. Shipton LK, Wester CW, Stock S, Ndwapi N, Gaolathe T, Thior I, Avalos A, Moffat HJ, Mboya JJ, Widenfelt E, Essex M, Hughes MD, Shapiro RL. Safety and efficacy of nevirapine- and efavirenz-based antiretroviral treatment in adults treated for TB-HIV co-infection in Botswana. Int J Tuberc Lung Dis 2009; 13:360-6.
4. Sungkanuparph S, Manosuthi W, Kiertiburanakul S, Vibhagool A. Initiation of antiretroviral therapy in advanced AIDS with active tuberculosis: clinical experiences from Thailand. J Infect 2006; 52:188-94.
5. Varma J, Nateniyom S, Akksilp S, Mankatitham W, Sirinak C, Sattayawuthipong W, Burapat C, Kittikraisak W, Monkongdee P, Cain KP, Wells CD, Tappero JW. HIV care and treatment factors associated with survival during TB treatment in Thailand: an observational study. BMC Infect Dis 2009; 9:42.

Quality assessment							Summary of findings				Importance	
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	No of patients		Effect			Quality
							EFV	NVP	Relative (95% CI)	Absolute		
Mortality (TB)												
4	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ¹	none	18/1282 (1.4%)	21/478 (4.4%)	RR 0.82 (0.35 to 1.89)	8 fewer per 1000 (from 29 fewer to 39 more)	⊕○○○ VERY LOW	CRITICAL
Serious adverse events (TB)												
2	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ¹	none	6/193 (3.1%)	6/222 (2.7%)	RR 1.14 (0.37 to 3.53)	4 more per 1000 (from 17 fewer to 68 more)	⊕○○○ VERY LOW	CRITICAL
Virologic failure (TB)												
2	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	no serious imprecision	none	42/1151 (3.6%)	52/320 (16.3%)	RR 0.93 (0.88- to 0.99)	59 more per 1000 (from 8 more to 109 more)	⊕⊕○○ LOW	CRITICAL
Adherence/tolerability/retention (TB)												
4	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	no serious imprecision	none	396/1249 (31.7%)	253/406 (62.3%)	RR 0.93 (0.58 to 1.5)	44 fewer per 1000 (from 262 fewer to 312 more)	⊕⊕○○ LOW	CRITICAL
Immunologic response (TB) (Better indicated by higher values)												
1	observational studies	no serious limitations	no serious inconsistency	no serious indirectness	serious ²	none	77	111	-	MD 36 higher (5.48 to 66.52 higher)	⊕○○○ VERY LOW	IMPORTANT

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Bibliography:

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2. Manosuthi W, Mankatitham W, Lueangniyomkul A, Chimsuntorn S, Sungkanuparph S. Standard-dose efavirenz vs. standard-dose nevirapine in antiretroviral regimens among HIV-1 and tuberculosis co-infected patients who received rifampicin. HIV Med 2008; 9:294-99.
3. Shipton LK, Wester CW, Stock S, Ndwapi N, Gaolathe T, Thior I, Avalos A, Moffat HJ, Mboya JJ, Widenfelt E, Essex M, Hughes MD, Shapiro RL. Safety and efficacy of nevirapine- and efavirenz-based antiretroviral treatment in adults treated for TB-HIV co-infection in Botswana. Int J Tuberc Lung Dis 2009; 13:360-6.
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