

When to Switch GRADE tables

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Question: Should Clinical and Immunologic Monitoring vs Virologic, Immunologic, and Clinical Monitoring be used in guiding when to switch first-line antiretroviral therapy in adults in low-resource settings?

Settings: Low-resource settings.

Bibliography: H.B.A.C. 2008

Quality assessment							Summary of findings					Importance
							No of patients		Effect		Quality	
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Clinical and Immunologic Monitoring	Virologic, Immunologic, and Clinical Monitoring	Relative (95% CI)	Absolute		
Mortality (follow-up median 3 years)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness ²	serious ³	none ⁴	?/371 ⁵	?/368 ⁵	HR 1.14 (0.7 to 1.9)	-	⊕⊕⊕ LOW	CRITICAL
AIDS-defining illness - not reported												
0	-	-	-	-	-	-	-	-	-	-		CRITICAL
AIDS-defining illness or Mortality (follow-up median 3 years)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness ²	serious ³	none ⁴	58/371 (15.6%) ⁶	47/368 (12.8%)	HR 1.28 (0.84 to 1.97)	33 more per 1000 (from 19 fewer to 108 more)	⊕⊕⊕ LOW	CRITICAL
Unnecessary Switch (Switch to Second-line with Undetectable Viral Load) (follow-up median 3 years)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness ²	very serious ⁷	none ⁴	0/371 (0%)	0/368 (0%)	Not estimable	-	⊕⊕⊕ VERY LOW	CRITICAL
Virologic Treatment Failure (follow-up median 3 years)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness ²	serious ³	none ⁴	26/371 (7%)	16/368 (4.3%)	RR 1.61 (0.88 to 2.95)	27 more per 1000 (from 5 fewer to 85 more)	⊕⊕⊕ LOW	IMPORTANT
Switch to Second-Line (follow-up median 3 years)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness ²	serious ³	none ⁴	4/371 (1.1%)	7/368 (1.9%)	RR 0.57 (0.17 to 1.92)	8 fewer per 1000 (from 16 fewer to 18 more)	⊕⊕⊕ LOW	

¹ Unclear sequence generation and allocation concealment, lost-to follow-up analyses not extensively presented but absolute numbers were relatively small, and blinding was not possible.

² Patient populations pre-selected and within relatively well-resourced ART delivery programs; however, as this study was in a low-resource setting it was not downgraded.

³ Total number of events is small.

⁴ Abstract(s) only, no peer-reviewed print publication(s) of these data are available; however, as a significant amount of data was available from abstracts/conference presentations no downgrading occurred.

⁵ Number with event not reported.

⁶ In clinical + immunologic arm 5.97 events/100 P-Y, in virologic + immunologic + clinical arm 4.80 events/100 P-Y.

⁷ Total number of events is very small.

When to Switch GRADE tables

Author(s): Larry William Chang, Jamal Harris

Date: 2009-09-14

Question: Should Virologic, Immunologic, and Clinical Monitoring vs Immunologic and Clinical Monitoring be used in guiding when to switch first-line antiretroviral therapy in adults in low-resource settings?

Settings: Low-resource settings.

Bibliography: ARTLINC 2006, 2008

Quality assessment							Summary of findings					Importance
							No of patients		Effect		Quality	
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Virologic, Immunologic, and Clinical Monitoring	Immunologic and Clinical Monitoring	Relative (95% CI)	Absolute		
Mortality (follow-up 12 months)												
1	observational studies	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	See comment. ²	See comment. ²	HR 2.28 (0.76 to 6.79)	-	⊕○○○ VERY LOW	CRITICAL
Rate of switching												
1	observational studies	serious ³	no serious inconsistency	no serious indirectness	no serious imprecision	none	236/6369 (3.7%)	340/13744 (2.5%)	RR 1.60 (1.35 to 1.89) ⁴	15 more per 1000 (from 9 more to 22)	⊕○○○ VERY LOW	
Time to switch (7-18 months)												
1	observational studies	serious ³	no serious inconsistency	no serious indirectness	no serious imprecision	none	?/6369 ⁵	?/13744 ⁵	HR 1.38 (0.97 to 1.98)	-	⊕○○○ VERY LOW	
Time to switch (19-30 months)												
1	observational studies	serious ³	no serious inconsistency	no serious indirectness	no serious imprecision	none	?/2701 ⁵	?/6488 ⁵	HR 0.97 (0.58 to 1.6)	-	⊕○○○ VERY LOW	
Time to switch (31-42 months)												
1	observational studies	serious ³	no serious inconsistency	no serious indirectness	no serious imprecision	none	?/923 ⁵	?/2802 ⁵	HR 0.29 (0.11 to 0.79)	-	⊕○○○ VERY LOW	
CD4 cell count at time of switch												
1	observational studies	serious ³	no serious inconsistency	no serious indirectness	no serious imprecision	none	141 patients	261 patients	See comment. ⁶	-	⊕○○○ VERY LOW	

¹ This outcome was a subgroup analysis, selection of non-exposed cohorts were not drawn from same communities as the exposed cohorts.

² Neither number with event or at risk reported.

³ Selection of non-exposed cohorts were not drawn from the same communities as the exposed cohorts; incomplete follow-up data on many participants.

⁴ Programs with virologic monitoring rate of switching was 3.2/100 P-Y (95% CI 2.2-2.6) versus 2.0/100 P-Y (95% CI 1.9-2.3) in those without (p<0.0001); RR here is a rate ratio.

⁵ Number with event not reported.

⁶ Programs with virologic monitoring CD4 cell count at time of switching was 161 cells/ul compared to 102 cells/ul in those without (p=0.001).