

Masters thesis

MSc of International Health

**First assessment visit of HIV-infected children presenting to a governmental
paediatric antiretroviral treatment clinic in Malawi:**

Patient characteristics and uptake of highly active antiretroviral therapy

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Executive Summary

Objectives To evaluate the effect of introducing the new WHO clinical staging system in a governmental hospital setting without routine availability of CD4 count by describing characteristics and uptake of antiretroviral therapy (ART) of HIV-infected children referred to the Paediatric ART Service in Blantyre, Malawi.

Methods Observational study over one year, conducted from November 2005-2006.

Results Of 701 children seen (mean age 72.1 months), 400 (57%) were scheduled to start ART. Main entry criteria as documented by the clinician were nutritional criteria (71%), oral candidiasis (39%) and tuberculosis (TB) in the last two years (28%). In the planned starter group 200 (44.4%) commenced ART, 10 children (2.5%) died and 168 patients (52.9%) defaulted from the ART clinic (having never started ART). A more advanced WHO stage ($p=0.001$), a weight-for-age z-score <-3 ($p=0.024$), weight-for-height z-score (WHZ) <-3 ($p=0.001$), previous admission to a nutrition rehabilitation unit and younger age ($p=0.047$) were significantly associated with not starting (monovariate analysis). WHZ remained the only significantly associated parameter in multivariate analysis ($p=0.04$). Children waiting 6-12 and 12-18 weeks to start ART had a decreased chance of starting ART compared with a waiting time of 0-6 weeks (OR 0.3 and 0.4 respectively). When applying the new World Health Organisation (WHO) staging guidelines 628 children would fulfil criteria for stage III or IV whereas 368 children were clinically eligible for ART when using the old WHO criteria (stage III only). The latter group was significantly younger (mean age 60.1 versus 70.7 months) but main clinical characteristics were the same in both groups.

Conclusion Almost twice as many children were eligible for ART when strictly applying the new WHO criteria compared with a retrospective application of the old classification. Antiretroviral treatment was not initiated in more than 50% of the children booked to start ART. Recognising causes for defaulting is required to increase ART uptake. Reducing the waiting time, improving carers understanding of ART and strategies like fast-tracking vulnerable groups should be a first step to improve outcome. A marked increase of patients qualifying clinically for ART after introducing the new WHO staging system has to be anticipated. This should be noted by other ART services and policy makers.