

## **(516) - Mortality Of HIV-1-Infected Patients Starting Antiretroviral Therapy: Comparison Between African Scale-Up Programmes And Cohorts From Industrialized Countries**

**Egger, Matthias**

UNIVERSITY OF BERN, INSTITUTE OF SOCIAL AND PREVENTIVE MEDICINE  
SWITZERLAND

### **Co-authors:**

Brinkhof, Martin  
Orrell, Catherine  
Weigel, Ralf  
Seyler, Catherine  
Phiri, Sam  
Bekker, Linda-Gail  
Dabis, Francois  
Boulle, Andrew

for The Antiretroviral Therapy in Lower Income Countries (ART-LINC) and ART Cohort Collaborations

### **Abstract:**

**Background:** We recently compared outcomes during the first year of highly active antiretroviral therapy (HAART) between HIV-1-infected patients in low-income and high-income settings (Lancet 2006). We updated this analysis using data from large scale-up programmes in sub-Saharan Africa.

**Methods:** Data from 7,109 patients from four treatment programmes in Malawi (Lighthouse), Côte d'Ivoire (CEPREF) and South Africa (Khayelitsha, Gugulethu) and 21,718 patients from Europe and North America were analysed. All patients were treatment-naïve adults starting HAART between 2000 and 2006.

**Results:** Compared with high-income countries, patients starting HAART in low-income settings had lower CD4 cell counts (median 96 cells/L vs. 192 cells/L), more advanced stage of disease (90% vs. 29%), were more likely to be female (64% vs. 28%), and more likely to start treatment with a non-nucleoside reverse transcriptase inhibitor (NNRTI) (93% vs 39%). At 6 months, the median number of CD4 cells gained was 128 vs 104 cells/L and the percentage of patients reaching HIV-1 RNA levels lower than 500 copies/mL 92% vs. 81%. Loss to follow up during the first year was 4.4% and 4.7%, respectively. First-year mortality was higher in low-income settings (12 per 100 pyrs, 95% CI 11-13) than in high-income settings (2 per 100 pyrs, 95% CI 1.8-2.2). The adjusted hazard ratio (HR) of mortality comparing low-income with high-income settings fell from 7.0 (95% CI 2.8-17.5) during the first month to 2.0 (1.1-3.5) during months 7-12.

**Conclusion:** Compared to industrialized countries, patients starting HAART in scale-up programmes in sub-Saharan Africa experience substantially higher mortality in the first months on HAART. This excess mortality might be reduced by more timely diagnosis of HIV infection and assessment of treatment eligibility.