

# **Survival pattern and its determinants among adult HIV-infected patients after initiation of HAART in Dilla Hospital Ethiopia**

Nahom Tesfaluul Negassi

*Zhengzhou University, China*

## **Abstract**

**Background:** In resource poor countries like Ethiopia the survival of patients treated with ART depends on a variety of factors, which might vary greatly with economic, demographic, behavioral and health risk factors. However, factors affecting survival in Ethiopia are poorly understood. The aim of this study is to determine causes of mortality in adult HIV-positive patients receiving highly active anti retroviral treatment (HAART) in Dilla Referral Hospital.

**Methods:** The medical records of 1391 ART patients who enrolled at Dilla Hospital between 2010 and 2014 were reviewed and socio-demographic, clinical, behavioral and immunological data were collected. Multivariable Cox proportional hazards regression model was used to measure risk of death and identify the independent predictors of mortality.

**Result:** Out of 1391 cohorts of adults ART patients 1081 (77.7%) were alive and continued their treatment in the hospital, 128 (9.2%) were reported dead, 111 (8%) were transfer out and 71 (5.1%) were lost follow up. The probability of remaining alive and on treatment after 60 months of follow up was 89.3% for TB/HIV patients and 91.1% for HIV only infected patients. HIV patients who developed TB had shorter survival time than not developed TB. Death occurred 26% and 52% in the first 3 and 12 months of ART initiation respectively. The overall incidence rate of mortality during ART treatment was 3.5 per 100 person year observations (PYO). In multivariate analysis low body weight BMI <18.5 kg/m<sup>2</sup> (HR 3.12, 95% CI 1.39-7.76, P<0.0001), CD4 count less than 50 cells/mm<sup>3</sup> (HR 4.55, 95% CI 1.19-8.44, p<0.002), anemia, WHO clinical stage III and IV, drug addiction and presence of active TB infection were predictor of survival and statistically significant association with mortality in HIV patients under ART follow up.

**Conclusion:** The presence of lower baseline CD4-cell, TB infection, WHO clinical stage III and IV, lower body weight, anemia and drug addiction were factors associated with mortality among ART clients. Improving nutritional status, prevention and control of TB and other opportunistic infections were the recalled recommendations to decrease AIDS-related mortality. These determinants should be taken into account by health care providers to enhance better clinical outcomes of ART attendees.

## **Biography**

Nahom Tesfaluul Negassi is currently an Assistant Lecturer as well as Member of Research and Postgraduate Program in Asmara College of Health Sciences, Asmara Eritrea since 4 years. He is currently pursuing Masters in Clinical Laboratory Diagnostics, Department of Laboratory Medicine in The First Affiliated Hospital of Zhengzhou University, China.