FACTORS ASSOCIATED WITH RECOVERY TIME AMONG PATIENTS WHO DELAY TO INITIATE ANTIRETROVIRAL THERAPY: A CASE OF PATIENTS IN MULAGO HOSPITAL, UGANDA

BY

MATSIKO NICHOLAS B.STAT (Hons) MaK

2011/HD06/4037U

> A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF STATISTICS OF
> MAKARERE UNIVERSITY

August, 2013


#### Abstract

The objective of the study was to investigate the factors associated with recovery time of HIV positive patients who delay to initiate Antiretroviral Therapy. The investigation was based on medical records of patients attending Immune Syndrome Suppression Clinic in Mulago Hospital. Patients reporting for care with a Cluster of Differentiation 4 Cell counts of less than $200 \mathrm{cells} / \mathrm{ml}$ were regarded as delayed to initiate Antiretroviral Therapy. Recovery was defined as attainment of more than 350 cells $/ \mathrm{ml}$ of blood and time (in days) to this event was the Recovery Time. A descriptive summary of demographic, clinical and socio-economic factors of patients was done using frequencies and summary statistics. The factors associated with recovery time were established using survival analysis. Kaplan-Meier functions were used to estimate the recovery curve and the rates of recovery were examined using the Cox Proportional Hazards Model.

A total of 3314 patients were assessed and of these 1107 recovered representing a $33.4 \%$ recovery rate. A median recovery period of 431days (14.4months) implies that patients recover after the second Cluster of Differentiation 4 Cell count testing. The rates of recovery in a Cox Regression Model were higher among female, patients with younger age groups, a higher Cluster of Differentiation 4 Cell count at initiation and patients with lower baseline WHO stages ( $\mathrm{p}<0.05$ ). Further more significant variations in the rates of recovery were noted by the type of initial ART regimen.


These findings suggest the need to setup measures in promoting early initiation to ART particularly among the males and older patients.

