

**FACTORS ASSOCIATED WITH TB TREATMENT OUTCOME IN TB-HIV
CO-INFECTED PATIENTS IN UGANDA
(JANUARY 2008-SEPTEMBER 2014)**

TUMUSIIME HERBERT

Bsc. Ed (MUST)

**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF
RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER
OF STATISTICS OF MAKERERE UNIVERSITY**

OCTOBER, 2016

ABSTRACT

The main objective of the study was to identify the factors associated with TB treatment outcome in TB-HIV co-infected patients in Uganda. The study was based on cohorts of TB patients that registered with Kabwohe clinical research centre between January 2008 and September 2014.

Variables of interest were age, height, sex, baseline weight, type of patient, diagnostic category, TB treatment regimen, HIV status, baseline CD4 cell count, antiretroviral therapy and treatment outcome (this was considered as cured after completing the treatment, died, defaulted or failed treatment). The stepwise logistic regression model was employed to identify the factors associated with TB treatment outcome.

Out of 257 patients included, 180 (70.04%) patients completed treatment and were cured, 35 (13.62%) died, 33 (12.84%) defaulted, and 9 (3.5%) patients failed treatment. Males had a higher proportion of unsuccessful TB treatment cases as compared to females (31.5%, 29.01%). Treatment success rate was around 70%.

In the stepwise logistic regression analysis the factors that were strongly associated with TB treatment outcome were age (OR = 0.89, $p=0.000$), weight (OR = 1.07, $p=0.000$) and type of a patient. It was found out that as the age of the patient increased, the likelihood of successful TB treatment reduced. Increased weight of the patient increased the likelihood of successful TB treatment. New (OR=13.78, $p=0.037$) and Relapse (OR=29.69, $p=0.020$) patients had better results of TB treatment outcome as compared to patients who had defaulted.

The rate of treatment success in this study was lower than the rate recommended by WHO of eighty five percent cure rate and less than five percent defaulter rate by 2015. More efforts should be undertaken to improve treatment success rates of both diseases.