

Does Tuberculosis co-infection in People Living with HIV (PLHIV) increases the risk of needing second line antiretroviral therapy in Tanzania ?



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BACKGROUND:

The use of antiretroviral therapy (ART) has significantly reduced TB incidence, recurrence, reactivation and mortality among HIV patients. Since 2015, WHO has recommended all PLHIV, including those co-infected with TB are put on ART immediately. We aimed to determine whether HIV/TB co-infection was associated with increased chance of being initiated on ART, and subsequently changed to second line ART when needed. Considering their increased risk of developing complications and/or adverse events with the use of ART.

CONCLUSION:

HIV/TB co-infection is significantly associated with reduced chance of being put on first line ART at enrollment or changed to second line ART thereafter. But there has been a gradual increase in the use of ART over time. Adherence to prevailing Guidelines will help increase appropriate use and coverage of ART.

METHODS:

This was a cross-sectional study using routinely collected data from the Tanzania national database of PLHIV attending care and treatment clinics (CTC)s from January of 2012 to December 2017, in Northern Tanzania. We used a logistic regression model with a multilevel component (using health facility levels as clusters) to determine the proportions and predictors of first and second-line ART use among HIV alone and HIV/TB co-infected patients.

RESULTS:

The study involved 93,290 PLHIV with the mean age of 36.3 (SD = 2.9) years. Of the 54,105 (58.0%) who were on ART, only 515 (0.9%) ever changed to second line ART. The study had 2,385 (2.6%) patients who had HIV/TB co-infection. Those with HIV/TB co-infection had less likelihood of being put on ART compared to those with HIV only, with OR of 0.58 (95% CI 0.54-0.63). Having HIV/TB co-infection was associated with significant less odds of being changed to second line ART, aOR 0.54 (95% CI 0.45-0.88).