Determinants of Isoniazid Preventive Therapy Completion among People Living with HIV Attended Care and Treatment from 2013 to 2017 in Dar es Salaam Region, Tanzania. A cross-sectional analytical study

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Abstract

Background: Tuberculosis (TB) disease is a common opportunistic infection among people living with HIV (PLHIV). WHO recommends at least six months of isoniazid Preventive Therapy (IPT) to reduce the risk of active TB. It is important to monitor completion of IPT, as a suboptimal dose may not protect PLHIV from TB infection. This study determined IPT completion and its determinants among PLHIV aged 15 years or more in Dar es Salaam region, Tanzania.

Methods: A Cross-sectional analytical study was conducted using secondary analysis of routine data from 58 care and treatment clinics in Dar es Salaam region. The study recruited clients who screened negative for TB symptoms and initiated IPT between January 2013 and June 2017. Modified Poisson regression model with robust standard errors were used to estimate prevalence ratios (PR) and 95% confidence interval (CI) for factors associated with IPT completion. Multilevel analysis was used to account the health facility random effects in order to estimate independent factors associated with IPT completion.

Results : A total of 29,382 clients were initiated on IPT, with 21,808 (74%) female. Overall 17,092 (58%) completed IPT, increasing from 42% (773/1,857) in year 2013 to 76% (2,929/3,856) in 2017. Multilevel multivariable model accounting for health facility as clusters, found that clients with CD4 counts between 100 to 349 cells/ had 3% lower prevalence of IPT completion as compared to those with 100 cells/ (PR:0.97: 95%CI:0.94-1.01). Patients who were not on ART had 46% lower IPT completion compared to those were on ART (PR: 0.54: 95%CI: 0.45-0.64). There was lower IPT completion among clients who transferred to another clinic compared to those attended the same clinic where they were initiated IPT (PR: 0.63: 95% CI (0.54-0.74).

Conclusion: IPT completion is low at care and treatment clinics although it increased over time. Lower IPT completion was seen in PLHIV with CD4 counts between 100 to 349 cells/ , those who transferred to other clinics and those not on ART. Thus it indicates the need for better IPT interventions with greater support PLHIV in those groups. **Keywords:** IPT completion, HIV, tuberculosis, predictors,

Tanzania

Full-text

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