

Risk factors for loss to follow-up among HIV-infected adults attending health care facilities in Tanga region, Tanzania

Aisa Muya¹, Expeditho Mtisi², Frida Ngalesoni¹, Edwin Kilimba¹, Victor Mponzi¹

¹Amref Health Africa in Tanzania

²Dar Es Salaam Institute of Technology, Tanzania

Background: While adherence to Antiretroviral treatment (ART) is paramount for successful clinical outcomes, loss to follow-up (LTFU) is still a challenge in HIV care and treatment programs in lead sub-Saharan Africa. We analyzed risk factors associated with LTFU among HIV-positive patients currently receiving ART within HIV Care and treatment clinics (CTCs) in the Tanga region of Tanzania in order to guide the development of strategies to improve the retention care and treatment services among people living with HIV (PLHIV) in the country.

Materials and Methods: We conducted a prospective cohort study of PLHIV enrolled in CTCs in Tanga from October 2018 to September 2019. LTFU was defined as missing clinic visits for 90 consecutive days after the last scheduled appointment date among patients on ART. Cox proportional hazard regression models were employed to identify risk factors associated with the outcomes.

Results: Among 37,269 PLHIV followed, 7,265 patients (19.5%) were LTFU over one year of the study. The median age of the participants was 43 years (interquartile range, IQR: 35- 52 years), and their median CD4+ cell count was 478 cells/ μ L (IQR: 286-714 cells/ μ L). Factors associated with LTFU were predominantly due young age <25 years, male gender, patients with advanced HIV disease (Stage IV), patients with viral load suppression failure, and surprisingly among patients living in Pangani district compared to other districts in the same region with relative risks (RR) 1.81, 95% CI 1.67 – 1.97; 3.54, 95% CI 3.50 – 5.70; RR 1.35 95% CI 1.22 – 1.50, and RR: 1.79, 95% CI 1.66 -1.93; and RR 1.19, 95% CI 1.05 – 1.36) respectively. At the same time, there is a significantly lower risk for being LTFU among PLHIV who were on ART for only one year or less than one year and those using DTG based ART regimen (RR: 0.67, 95% CI 0.61 – 0.73; and RR: 0.03, 95% CI 0.02 – 0.04) respectively.

Conclusions: The pattern of LTFU risk factors indicates that young men are still are predominantly most likely to be LTFU hence having poor adherence to ART leading to poor clinical outcome. Although we see that being on DTG based regimen with more minor side effects and easy to swallow pill, there is the possibility of other social-economic factors/activities such as fishery (as seen in Pangani district) to poor adherence to the clinic appointment.

