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## Retention in HIV Care among Patients Testing Positive for HIV and Ineligible to Start Antiretroviral Therapy

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### ABSTRACT

Background: The failure to monitor and link patients from HIV testing to HIV care and retain them in care until they are eligible for ART is a major barrier to early ART initiation. This study evaluated the retention in pre-ART care of HIV-positive patients who are ineligible to start ART in Nigeria. Methods: Out of 1766 ART-ineligible HIV-positive patients enrolled into pre-ART care (during 1<sup>st</sup> March to 31<sup>st</sup> December 2007), 1,098 patients were randomly selected for a five-year (ending 30<sup>th</sup> April 2012) retrospective cohort assessment using routine data in two health facilities. Retention was defined as remaining connected to pre-ART care once entered until ART initiation or transfer-out to continue care elsewhere. Probability of retention was estimated using Kaplan-Meier survival method and log-rank test. Cox proportional hazards model was used for attrition and  $P < 0.05$  used to determine statistical significance. Results: The mean age of participants was 33.1 (95% CI, 32.6 - 33.6) years old; and 65.1% were female. Patients were followed up for 512.6 person-years. Of the 59.0% patients retained, 93.8% started ART, 4.6% were transferred out to continue care elsewhere and 1.6% were active in care at the end of observation period. The retention rates at 1, 2, 3, 4 and 5 years observation period were 36.1 cases per 100 person-years, 17.4 cases per 100 person-years, 9.6 cases per 100 person-years, 3.7 cases per 100 person-years and 0.6 cases per 100 person-years respectively; the differences were statistically significant ( $P < 0.05$ ). The mean estimate of patients' attrition time was 1.9 (95% CI, 1.7 - 2.1) years. Patients who started cotrimoxazole prophylaxis (CPT) at enrolment had significantly higher attrition time of 2.4 (95% CI, 2.1 - 2.7) years, compared to 0.9 (95% CI, 0.7 - 1.1) years for those not on CPT ( $P < 0.05$ ). There was 54.0% reduction in risk of attrition among those who started CPT compared to those who did not [HR = 0.460, 95% CI: 0.321 - 0.660;  $P = 0.000$ ]. Socio-demographic characteristics, CD4 cells count and WHO clinical stage at pre-ART enrolment were not associated with attrition ( $P > 0.05$ ). Conclusion: Retention in pre-ART care was somewhat poor. Uptake of CPT significantly improved retention. Majority of attrition occurred in first year of pre-ART care. Close monitoring and tracking of patients during this period is recommended.

### KEYWORDS

Retention; Attrition; HIV Care; Patients; Nigeria

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