Unplanned Interruptions in HIV Care in Nigeria: Rates and Implications

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Background: Unplanned care interruptions pose a challenge to effective HIV treatment. However, little is understood about rates of interruptions and how to minimize interruptions in care in resource-limited settings. Our objective was to determine the frequency, risk factors, and impact of unplanned care interruption on virologic outcomes among HIV-infected patients in Nigeria.

Methodology: We conducted a retrospective cohort study at a university-affiliated HIV clinic in Nigeria. The cohort included adults (≥14yrs) who enrolled in care and initiated ART between January 2009 and December 2011. Follow-up was through December 2012. We defined unplanned care interruption as a period in which patients had no contact with the HIV clinic for clinical, laboratory, or ART pick-up visits. We studied interruptions of >3 months, >6 months, or any interruption (>3 or >6 months). We used multivariate logistic regression models adjusted for observation time to measure associations between baseline clinical and demographic factors with having at least one care interruption. We assessed HIV RNA levels at return to care in those with unplanned interruptions.

Results: Among the 2,496 patients in the cohort, 69% were female, median age was 32 years and 8% were students. In the 1st year on ART, median days between clinic visits was 30. Over 90% of all visits involved drug-pick-up. Thirty-seven percent of patients had ≥1 care interruption lasting at least 3 or 6 months. Sixteen percent of patients had one 3-month interruption, 10% had one 6-month interruption, and 11% had combinations of both. Rates of interruption were highest in the 1st year on ART (28.4/100PY), and declined with each year on ART [Figure 1]. In multivariate analysis, students (OR1.6, p=0.025), those with baseline CD4 >350/uL (OR2.7, p<0.0001), and those with any hospitalization during follow-up (OR1.6, p=0.020) were at increased risk for any interruption of 3- or 6-month duration. On return to care, 49% of those with 3-month and 61% with 6-month interruptions had HIV RNA >1,000 copies/ml.

Conclusions: Nearly 40% of all patients starting ART in a large treatment program in Nigeria had interruptions in care of 3 or 6 months. Interruptions occurred most commonly in the 1st year on ART, and were associated with loss of virologic suppression. Students, those with high baseline CD4 count and those hospitalized during the follow-up period were at highest risk. Focused interventions in the 1st year on ART are essential to ensure continuity of HIV care.

Figure 1: Rates of 3- and 6-month Unplanned Care Interruptions by Year on ART