Unplanned Care Interruptions in HIV Care in Nigeria: Rates and Implications

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BACKGROUND

- Unplanned care interruption describes non-adherence to clinical, laboratory, or pharmacy visits, and poses a challenge to effective treatment.
- Unplanned care interruption is associated with increased morbidity and mortality.
- Little is known about the frequency and risk factors for unplanned care interruption, particularly in resource-limited settings.

METHODS

- To determine the frequency and risk factors for unplanned care interruption among patients initiated on ART in Nigeria

STUDY DESIGN

- Retrospective cohort study
- Adults ≥14 years eligible for ART on enrollment & initiated ART

RESULTS

- Unplanned Care Interruption in this retrospective study.
- Baseline CD4 count had the increased risk for unplanned care interruption in the first year on ART.
- Follow-up CD4 and viral load data were available for a subset of patients with unplanned care interruption.

LIMITATIONS

- 3% of patients in our cohort had unplanned care interruption after ART initiation.
- Of the patients with available viral load data, 50% returned to care with substantial viremia.
- The rate of unplanned care interruption was greatest in the first year on ART.
- Single patients, students, and those with high baseline CD4 count had the increased risk for unplanned care interruption.
- Targeted interventions in the first year on ART are critical to improve retention and patient outcomes.

CONCLUSIONS

- 37% of patients in our cohort had unplanned care interruption after ART initiation.
- Of the patients with available viral load data, 50% returned to care with substantial viremia.
- The rate of unplanned care interruption was greatest in the first year on ART.
- Single patients, students, and those with high baseline CD4 count had the increased risk for unplanned care interruption.
- Targeted interventions in the first year on ART are critical to improve retention and patient outcomes.

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Ahmadu Bello University Teaching Hospital, Kaduna Nigeria

- PEPFAR-supported program administered by AIDS Prevention Initiative in Nigeria (APIN)
- Tertiary facility providing free ART to eligible patients since 2006
- >4000 patients in care
- Semi-urban community with local HIV prevalence 5.1%

OBJECTIVE

- To determine the frequency and risk factors for unplanned care interruption among patients initiated on ART in Nigeria

DATA ELEMENTS

- APIN’s comprehensive central electronic database
- Calculated rates of unplanned care interruption using Poisson regression

ANALYSIS

- Determined proportion of patients in care, with ≥1 unplanned care interruption, or inactive from clinic at censor date
- Calculated rates of unplanned care interruption by year on ART and evaluated for trend using Mantel-Haenszel test
- Reported proportion of patients with viremia (>1000 copies/mL) within 3 months of return from first unplanned care interruption
- Assessed change in CD4 count before first unplanned care interruption and within 3 months of return to care using Wilcoxon matched-pairs signed rank test
- Evaluated baseline demographic and clinical predictors of first unplanned care interruption in the first year on ART using Poison regression

METHODS

- Studied November 2009 and December 2011
- Studied December 2012, all patients with at least 1 year of observation
- Patients categorized into 3 mutually-exclusive groups at study censor – in care, ≥1 unplanned care interruption, inactive (see Figure 1)
- Primary outcome: First unplanned care interruption in first year on ART
- Secondary outcomes: rate of ≥1 unplanned care interruption by year on ART, change in CD4 count during unplanned care interruption

RESULTS

- Unplanned Care Interruption in this retrospective study.
- Baseline CD4 median* (≥20, 30, 40, 50, 100, 200, 300, >350 cells/mL

Limitations

- Results are based on one university-affiliated clinic and may not be generalizable to other settings.
- We were unable to assess reasons for unplanned care interruption in this retrospective study.
- Follow-up CD4 and viral load data were available for a subset of patients with unplanned care interruption.

Conclusions

- 37% of patients in our cohort had unplanned care interruption after ART initiation.
- Of the patients with available viral load data, 50% returned to care with substantial viremia.
- The rate of unplanned care interruption was greatest in the first year on ART.
- Single patients, students, and those with high baseline CD4 count had the increased risk for unplanned care interruption.
- Targeted interventions in the first year on ART are critical to improve retention and patient outcomes.