1092: RISK FOR ATTRITION IN HIV-INFECTED CLIENTS ON TREATMENT IN URBAN HIV CLINICS IN KENYA

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Background and Objectives

- By end of 2017, Kenya was providing ART to >1million patients. Despite this successful scale-up, retention on ART remains challenging, with poor accounting for losses to care
- The processes of transferring patients out of and receipt in to clinics are poorly defined, and the impact is assumed to be benign, with patients transferred-out in Kenya reported as active on ART[1], despite evidence suggesting that even when managed, patient outcomes may not be optimal during transfer[2, 3].
- Lack of a national referral system impedes effective patient tracking
- With PEPFAR funding through CDC, the University of Maryland, Baltimore (UMB) collaborates with Nairobi City County to provide ART to > 23,000 patients in 32 primary care facilities.
- This urban setting is characterized by a mobile population with numerous HIV clinics to choose from, within a poorly connected health system, necessitating implementation of strategies to mitigate losses .
- We describe the factors associated with attrition of patients on ART in an urban primary care setting in Nairobi, Kenya.

UMB Kenya Strategy to Strengthen Retention on ART

Patient Education for self Management	• Begins from enrolment and ART initiation • Provided in a structured format using national and program specific tools • Counseling and education provided by qualified adherence counselors
Case Management for vulnerable patients	• Including those newly diagnosed/initiating ART, children, adolescents, pregnant women, missed appointments, those with viremia • Specific clinic days held for certain populations
Robust Appointment System	• Use of paper/EMR appointment systems • Files prepared evening prior to clinic day • Missed appointments identified by end of the day
Patient Tracking System	• Begins immediately upon missing appointment • Involves phone contact and physical tracking after failed phone call attempts • Use of CHVs and peer educators

Methods

- We carried out a retrospective analysis of data for patients enrolled on ART lost to care (attrition) between October 1, 2016-June 30, 2017.
- Attrition was defined as:
  - ➢ Lost to follow-up (LTFU – not received drugs for ≥ 90 days)
  - ➢ Transfer-out (TO) –letter of transfer given to patient at the last appointment
  - ➢ Transfer-in –documented treatment history from another facility
  - ➢ Dead – documented death
  - ➢ Stopped ART – clinic or patient initiated discontinuation of ART
- Data was abstracted from both paper and electronic medical records and statistical analysis conducted using Stata Version 13.
- Generalized logistic regression was used to estimate the predicted probabilities of attrition.
- Per patient predicted probabilities were used to calculate a c-statistic to measure how well the model predicted attrition

Results

- During this 9-month period there were 1,576 losses to care (attritions); 803(51%) were TO, 654(42%) LTFU and 117(7%) died
- Median duration on ART was 8 months(0-199 months).
- Transfer in status, younger age at ART initiation, shorter duration of ART and lack of documentation of a viral load were all independently predictive of attrition (C-statistic of 0.79 for the model)
- Rate of viral load (VL) suppression based on the most recent viral load was significantly lower amongst patients classified as attritions, compared to active patients, regardless of reason for attrition; OR 0.32 (CI: 0.24-0.42) for TO, OR 0.40 (CI: 0.27-0.60) for LTFU and OR 0.18 (CI: 0.09-0.38 among dead

Table 1: Factors associated with attrition

Characteristic	Adjusted OR (95% CI)	P Value
Transferred in on ART		
No	1(Ref)	
Yes	11.94 (10.94,13.97)	<0.0001
Documented viral load		
Yes	1.00 (Ref)	
No	1.66 (1.45 1.91)	<0.0001
Age at ART Initiation (per year of increase)	0.99 (0.98-0.99)	<0.0001
Duration on ART		
>24 months	1.00(Ref)	
13-24 months	2.62 (2.19, 3.14)	<0.0001
6-12 months	2.69 (2.20, 3.31)	<0.0001
< 6 months	8.92 (7.46,10.66)	<0.0001

Conclusions and Recommendations

- Transferring-in to a clinic, having been on ART, is a strong predictor of attrition.
- Other factors associated with attrition include younger age, and shorter duration on ART.
- Attritions had lower viral suppression rates prior to being lost to care compared to active patients
- The processes of transferring out patients and handling of those transferring in to HIV clinics merits review within this setting.
- Patients starting ART, especially children, adolescents & young adults may require additional interventions for successful retention on ART.

References

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