Decreasing Time to ART Initiation after HIV Diagnosis in Sub-Saharan Africa

INTRODUCTION

World Health Organization (WHO) guidelines have evolved over time to recommend earlier initiation of antiretroviral therapy (ART) (Figure 1).

Despite changing guidelines, barriers to ART access remain, with limited data on resource-limited settings.

The objective of this analysis was to characterize temporal trends and other factors influencing the interval between HIV diagnosis and ART initiation in four African countries.

Figure 1. World Health Organization Guidance for When to Start Antiretroviral Therapy, by CD4 Count

METHODS

The African Cohort Study (AFROCOS) enrolls adults engaged in care at 11 PEPFAR-supported clinics in Uganda, Kenya, Tanzania, and Nigeria.

HIV-infected participants provide a medical history, complete a physical examination and undergo laboratory assessments every six months.

Participants enrolling in the cohort between January 2013 and June 2016, with recorded dates of HIV diagnosis, were included in this analysis.


CD4 nadir was determined by medical record review.

Temporal trends in nadir CD4 prior to ART initiation and the interval from diagnosis to ART initiation were explored using Cox proportional hazards models.

Factors associated with the interval between diagnosis and ART initiation were explored using Cox proportional hazards models.

RESULTS

Table 1. Participant Characteristics

RESULTS

Table 2. Factors Associated with Time to ART Initiation

CONCLUSIONS

CONSISTENT with changing guidelines, the interval between HIV diagnosis and ART initiation has decreased over time for HIV-infected individuals in this cohort.

HIV diagnosis during more recent WHO guideline eras is strongly predictive of a shorter time to ART initiation, likely reflecting improvements in access to ART and CD4-guided diagnosis.

Despite increases over time in nadir CD4 prior to ART initiation, many individuals still initiate treatment with low CD4, highlighting the need to diagnose HIV earlier while improving access to immediate ART after diagnosis.

Figure 2. Nadir CD4 and Time to ART Initiation, by WHO Guideline Era

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