

An Observational Cohort Comparison of Facilitators of Retention in Care and Adherence to Anti-Eetroviral Therapy at an HIV Treatment Center in Kenya

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Abstract:

Background Most HIV treatment programs in resource-limited settings utilize multiple facilitators of adherence and retention in care but there is little data on the efficacy of these methods. We performed an observational cohort analysis of a treatment program in Kenya to assess which program components promote adherence and retention in HIV care in East Africa. **Methods** Patients initiating ART at A.I.C. Kijabe Hospital were prospectively enrolled in an observational study. Kijabe has an intensive program to promote adherence and retention in care during the first 6 months of ART that incorporates the following facilitators: home visits by community health workers, community based support groups, pharmacy counseling, and unannounced pill counts by clinicians. The primary endpoint was time to treatment failure, defined as a detectable HIV-1 viral load; discontinuation of ART; death; or loss to follow-up. Time to treatment failure for each facilitator was calculated using Kaplan-Meier analysis. The relative effects of the facilitators were determined by the Cox Proportional Hazards Model. **Results** 301 patients were enrolled. Time to treatment failure was longer in patients participating in support groups (448 days vs. 337 days, $P < 0.001$), pharmacy counseling (480 days vs. 386 days, $P = 0.002$), pill counts (482 days vs. 189 days, $P < 0.001$) and home visits (485 days vs. 426 days, $P = 0.024$). Better adherence was seen with support groups (89% vs. 82%, $P = 0.05$) and pill counts (89% vs. 75%, $P = 0.02$). Multivariate analysis using the Cox Model found significant reductions in risk of treatment failure associated with pill counts ($HR = 0.19$, $P < 0.001$) and support groups ($HR = 0.43$, $P = 0.003$). **Conclusion** Unannounced pill counts by the clinician and community based support groups were associated with better long term treatment success and with better adherence.