Abstract

Antiretroviral drugs (ARVs) requires adherence of more than 95% for adequate viral suppression. The consequences of poor adherence are failure of viral suppression, decrease CD_4 cell count, disease progression, drug resistance, risk of transmission of resistance virus and limited future treatment options. Published data on adherence to ARVs in Kenyan adolescents is limited. The purpose of this study was to determine the ARVS adherence level and describe the healthcare system, medication and social environmental factors affecting this adherence among Human Immune-deficiency Virus (HIV) positive adolescents. This was a descriptive cross-sectional study, where 185 patients aged 10-18 years who had been on ARVs for at least two years were systematically and randomly selected. Only 129 respondents who were HIV fully disclosed were interviewed using a structured questionnaire about their experience taking ARVs. Adherence was measured based on a composite score derived from a three questions adherence tool developed by Center for Adherence Support Evaluation (CASE). Data was also collected via Focused Group Discussion, Key Informant Interviews and from records retrieval. Data analysis was done using Epi data software 3.1 with statistical significance set at $p<0.05$. Overall, 185 patients were selected but 129 disclosed patients were interviewed; 52.7% males and 47.3% females, estimated level of adherence of 67.34% and the main (63.6%) reason for missing therapy was forgetting. Long waiting time in the clinic and stigmatization were other factors found to affect adherence. The CASE Index Tool depicted high reliability with a Cronbach's $\alpha=0.696$. The results showed a significant positive correlation between CD_4 counts and adherence ($Rh0=0.255$, $p=0.003$) and a significant inverse correlation between Viral Load levels and Adherence ($Rh0= -0.189$, $p=0.031$). Therefore, the 67.34% adherence level to ART reported in this study is below optimum adherence of 95%. This study gives the following recommendations; (a) Policy review on HIV disclosure procedures with training of health workers on it (b) Put fitting strategies to improve patients' ability to impact on forgetfulness (c) Clinic staff to adopt the use of CASE Tool in assessing adolescent's adherence to ARVs.