

# 11<sup>th</sup> International Virology Summit

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### **Virological suppression among HIV infected adolescents and youths receiving art in the national teaching and referral hospital in Kenya**

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**Background:** HIV virological suppression is poor among the adolescents and youth which may be related to several factors including adherence to antiretroviral therapy.

**Aim:** This study aimed to determine the HIV virological response and the associated risk factors among adolescents and youths on ART.

**Methods:** This was a cross-sectional study among adolescents and youths aged 10 to 24 years in Kenyatta National Hospital who were on ART for at least six months. Patient characteristics were captured in a questionnaire and viral load was abstracted from electronic medical records. Viral suppression was presented as a proportion based on viral load less than 1000 copies per milliliter of plasma. Viral suppression rate was associated with categorical independent factors using chi square test and means were compared using independent T –test.

**Results:** The mean age was 17 years (SD 4.3 years) and 55.6% were females. The median CD4 count was 573 cells per micro liter of blood (IQR: 344-1780). A total of 227 (74.2%) HIV infected adolescents and youths were virological suppressed (viral load less than 1000 copies/ml blood). As compared to children 10-14 years old who had 83.2% suppression rate, adolescents 15-19 years had poorer suppression rate at 69.6% [OR 0.5 (95% CI 0.2-0.9), P=0.022]. Similarly youths 20-24 years had a lower suppression rate at 70.8% compared to the children [OR 0.5 (95% CI 0.2-0.9), P=0.022]. Only 56.2% of the study participants had undetectable HIV viral RNA (as per UNAIDS 90-90-90 strategy). RNA Viral suppression rate was lower among ART defaulters (47.2%), those defaulting clinic appointments (51.7%) and those not honoring ART refill (50%). Majority of the participants (86.3%) were in WHO stage I whereas 2% were in WHO stage IV. Among those with unsuppressed viral loads, 20.7% had been diagnosed with Tuberculosis. None of the study participants had Hepatitis B virus infection.

**Conclusions:** HIV viral suppression among adolescents and youths was low and even much lower among 15 to 24 year-olds. Poor ART adherence and non-compliance to clinic appointments increased the risk of poor virological response.

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