

1. Bacha, J., Mayalla, B., Chodota, M., *et. al.*, (2021). Obsession with suppression: comparison of virally suppressed and unsuppressed children and adolescents living with HIV (CALHIV) treated with dolutegravir regimens in Mbeya and Mwanza, Tanzania. *Journal of the International AIDS Society*. Vol.24(4):15-6.

ABSTRACT

Background: Current guidelines recommend using dolutegravir (DTG) as a preferred ART regimen in eligible CALHIV. However, descriptions of CALHIV who remain virologically unsuppressed despite treatment with DTG remain unknown. We aimed to describe the cohort of CALHIV in care at the Baylor Tanzania HIV clinics who remain in treatment failure despite being on a DTG regimen. **Methods:** A retrospective chart review was conducted to assess the clinical characteristics of CALHIV receiving DTG as part of their ART at the Baylor College of Medicine Children's Foundation – Tanzania Centres of Excellence (COEs) in Mbeya and Mwanza, Tanzania between 1 March 2019 (when DTG became available) and 30 November 2020. HIV viral load (VL) suppression was defined as VL < 1000 copies/mL. **Results:** A total of 1703 CALHIV received DTG, among which 1084 (63.7%) had a documented VL after being prescribed DTG and were included in the analysis. Among those with post-DTG VL results, 7.6% (82/1084) remained virally unsuppressed despite their DTG regimen. Compared to CALHIV virally suppressed on DTG (N = 1002, 94.4%), those unsuppressed on DTG had higher rates of malnutrition (3.6% vs. 0.7%, $p < 0.01$) and previous ART exposure (99% vs. 97%, $p < 0.01$), as well as lower rates of previous viral suppression (70% vs. 97%, $p < 0.01$) (Table 1). There were no differences among the group regarding sex, age, time on ART, history of TB disease, history of IPT use, or single versus multiple tab DTG regimens (pill burden). **Conclusions:** While DTG was highly effective in virally suppressing the majority of CALHIV, 7.6% remained unsuppressed. Unsuppressed patients were more likely to have prior ART exposure and prior lack of VL suppression, likely reflecting a subset of CALHIV with complex adherence challenges. The pill burden of DTG regimens did not appear to make a difference between groups. These unsuppressed CALHIV will require unique, patient-centred support to improve their treatment success.