

### **Outcomes of children living with HIV transitioned to Dolutegravir based antiretroviral therapy regimen in Midlands and Manicaland Provinces of Zimbabwe, 2022**

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**Background:** Dolutegravir (DTG) is an anti-retroviral medicine proven to significantly reduce viral load (VL) among people living with HIV (PLHIV). Zimbabwe is using the child-friendly dispersible pediatric DTG (pDTG) 10mg tablet in addition to 50mg tablet. ZHI is supporting roll out and transition to DTG based regimens in children using a phased approach starting with tertiary level facilities; scale up to lower-level facilities started in March 2022. We assessed DTG transition progress and outcomes of pediatric clients before and after DTG transition.

**Methods:** We conducted an analytic cross-sectional study focusing on client outcomes before and after DTG transition across 34 high-volume sites. The primary outcome was viral load suppression. All children on ART in these facilities were included. Client folders were reviewed, and data were abstracted and captured into a Kobo electronic data collection tool. Data were analyzed using Stata 15.

**Results:** A total of 1,003 children were included in the study with median age of 11 years (IQR 7-13) and of these 811 (81%) were on a non-DTG based regimen when they started ART. Of these, 635 (72.3%) were switched to a DTG based regimen. Data to measure the effect of DTG transition was available for 276 children who had VL before and after transitioning. A total of 220 (80%) had a suppressed VL before transition and 264(96%) had a suppressed VL after transitioning. Children who remained on a non-DTG containing regimen were 8 times more likely to have unsuppressed VL compared to those who switched to DTG (RR 7.86, 95% CI 2.4-25.2).

**Conclusion:** A significant proportion of children were transitioned to a DTG containing regimen and had better VL suppression compared to those on a non-DTG regimen. We recommend programs to develop guidance to expedite transition of children to DTG-based regimens.

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