48-Week Outcomes after Programmatic Transition to Dolutegravir in South Africa

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Background

- South Africa introduced tenofovir disoproxil fumarate/lamivudine/dolutegravir (TLD) as the preferred first-line antiretroviral therapy (ART) in 2019
- Limited programmatic data on transition from efavirenz (EFV)-based therapy to TLD in public sector clinics

Objective: To evaluate viral suppression and regimen tolerability during the TLD transition in public sector clinics in South Africa

Methods

- **Study design**: Prospective observational cohort study
- **Setting**: Four public sector clinics in KwaZulu-Natal,
- **Study population**: Adults (≥18 years of age) who transitioned from EFV-based ART to TLD and had been on ART for ≥6 months
- **Analysis:** Multivariable logistic regression
- **Outcome of Interest:** Viral suppression (<50 copies/mL) with retention in care at 48 weeks

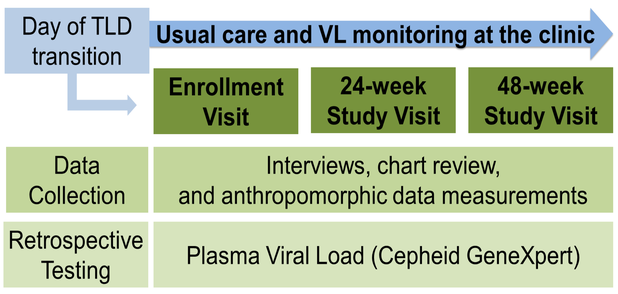


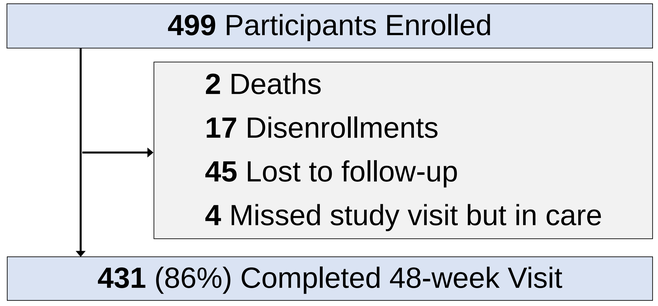
Table 1. Study population characteristics

Characteristic	Total Cohort (N=499)
Age (years), median (IQR)	39 (32 – 50)
Female, n (%)	401 (80%)
Years on ART, median (IQR)	6 (4 – 9)
ART regimen prior to TLD	
FTC/TDF/EFV, n (%)	473 (95%)
3TC/TDF/EFV, n (%)	13 (3%)
Other, n (%)	13 (2%)

Results

One year after transitioning to TLD, only 81% were virally suppressed and in care. Further efforts are needed to optimize adherence and care retention to attain programmatic goals of >95% viral suppression among those on therapy.

Figure 1. Study Retention



Reasons for TLD Discontinuation, n = 3 (<1%)

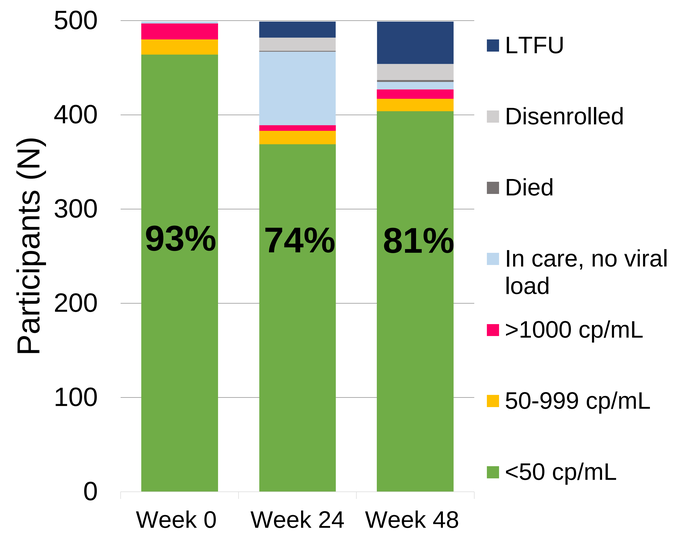
- Concern for drug-drug interaction
- Elevated creatinine
- Pregnancy

Table 2. Predictors of viral suppression with retention in care at 48 weeks following transition to TLD in South Africa

Predictors	Proportion	AOR	95% CI	P value
HIV-1 RNA VL at time of TLD transition				
<50 copies/mL at the time of transition	381/441 (86%)	Reference		
≥50 copies/mL at the time of transition	21/31 (68%)	0.38	0.17-0.87	**0.022***
Age category				
Age ≥40 years	218/243 (90%)	Reference		
Age <40 years	186/231 (81%)	0.49	0.28-0.84	**0.009***
Sex				
Female	321/377 (85%)	Reference		
Male	83/97 (86%)	0.98	0.50-1.91	0.948

*VL = viral load, AOR = adjusted odds ratio, CI = confidence interval

Figure 2. Viral Suppression Outcomes



Conclusions

- Those with age <40 years and detectable viremia at time of transition to TLD were less likely to be virally suppressed and in care at 48 weeks.
- TLD was well tolerated with <1% discontinuation rate.
- Only 81% of participants were virally suppressed and in care at 48 weeks.
  - Over half of those who did not achieve primary endpoint were lost from care or deceased.
  - Only 2/3 of those with detectable viremia at time of transition to TLD were virally suppressed after 48 weeks.

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