

Oral Abstract Presentations 2

#6 Monitoring and Management of Treatment Failure Among People on Antiretroviral Therapy in Mozambique: Lessons Learned to Improve Treatment Effectiveness

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Monitoring and management of treatment failure among people on antiretroviral therapy in Mozambique: lessons learned to improve treatment effectiveness

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November 30 – December 4, 2020

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Disclosure

The authors have no conflicts of interest to declare.

Background

- In Mozambique, 13.2% of adults live with HIV (MISAU, 2015). By the end of 2019, 1.3 million people living with HIV (PLHIV) were on antiretroviral therapy (ART) (MISAU, 2019).
- Monitoring treatment effectiveness is crucial to identifying and managing therapeutic failure and ultimately improve clinical outcomes among ART patients.
- Viral load (VL) monitoring is the preferred approach to diagnose treatment failure:
Two consecutive viral load test results $>1,000$ copies/mL within a three-month interval with confirmed adherence between measurements (WHO, 2013).
- Mozambique's national guidelines recommend that PLHIV on ART obtain a VL test at 6 months and every year thereafter for patients with VL test results <1000 copies/mL. For patients with suspected treatment failure (two consecutive VL-tests within three to six months >1000 copies/mL), a regimen switch is recommended (MISAU, 2015).
- **The objective of this study was to identify gaps in VL monitoring and regimen switch to inform improvements in patient management.**

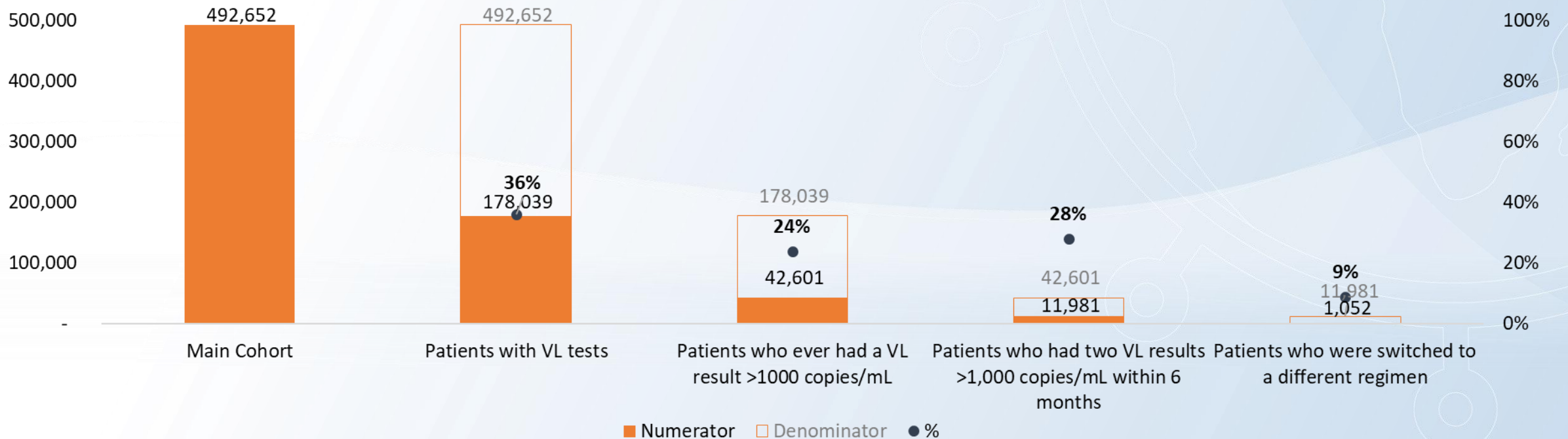
Methods

- National longitudinal database of PLHIV on ART (MozART)
- Retrospective cohort of adult patients:
 - Patients 15 years or older who initiated ART between January 1, 2017 and October 1, 2018
- Patients were followed from treatment initiation through June 21, 2019
- Demographic information, date of ART initiation, pharmacy pick-ups, and VL test results were reviewed
- Patients were categorized by:
 - VL testing status (did/did not have a VL test)
 - VL test results (≤ 1000 copies/mL or $> 1,000$ copies/mL)
 - Two consecutive VL test $> 1,000$ copies/mL within 6 months
 - ART regimens at time of each drug pick-up
- We used R version 3.6.0 to conduct the analysis

Results

- Of 492,652 adult patients on ART, 65% (319,713) were female.
- Only 36% (178,039) had a VL test during the study period, of which 38% (66,814) had a VL test within 8 months of initiation.
- Of all patients with a VL test, 24% (42,601) had a VL result of >1000 copies/mL.

VL Monitoring and Regimen Switch Cascade



Results

- Of all patients with a VL test of >1000 copies/mL, 28% (11,981) had two VL results >1000 copies/mL within 6 months, making them eligible for a regimen switch.
- 9% (1,052)* of patients with two VL results >1000 copies/ml had a regimen switch.

* *Based on updated analysis since abstract submission*

Limitations

- Underestimation of viral load coverage due to entry errors.
- Underestimation of patients who had a regimen switch due to lack of updating patient records.
- Potential misclassification of regimen switches as some ART regimens had been recoded as “other” in the longitudinal database which prevented us from identifying switches within the same regimen line.

Conclusions

- Among PLHIV on ART in Mozambique, VL testing does not occur at the frequency recommended by the national guidelines.
- Most patients who met the criteria to have a regimen switch did not switch regimens.
- There is an urgent need for patients with therapeutic failure to be switched to a different regimen while increasing VL coverage and monitoring VL results to all patients on ART.
- Ensuring that the turnaround time between specimen collection and return is as short as possible would help increase the identification of patients with therapeutic failure.
- Implementing programs that promote timely VL testing.

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Acknowledgements

Charity Alfredo, Peter Kerndt, Alex Cox, Joel Chehab, Alex Nguimfack, Kristen Heitzinger, *Centers for Disease Control and Prevention, Maputo, Mozambique*

Irenio Gaspar, *Ministry of Health (MOH), Maputo, Mozambique*

Maria Ruano, *I-TECH, Maputo Mozambique*

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