

Viral Load Testing: Room for improvement in Namibia's antiretroviral treatment services

In 2016 Namibia revised their National ART Guidelines (5th Edition) and incorporated the WHO recommendations—commonly known as “treat all”—which state that any person who receives a confirmed HIV diagnosis be offered antiretroviral therapy (ART). Project SOAR is determining the effects of treat all implementation on key service outcomes, per-patient costs, and contextual or operational factors that may affect the success of treat all.

During baseline data collection, we found that less than two-thirds of patient health records reviewed contained any viral load (VL) results during the previous 12 months,¹ suggesting a low VL rate or issues with recording of VL test results. In response, the study team further examined practices and challenges related to VL testing. This brief presents qualitative findings from patients and health providers that aim to explain low rates of VL testing.

METHODS

The data on VL testing practices were collected during the endline phase of a broader assessment of Namibia's national rollout of “treat all” at 10 health facilities in 6 districts (Andara, Nyangana, Oshikuku, Onandjokwe, Tsumeb, and Omuthiya) in northern Namibia. The selected facilities have received technical assistance for HIV clinical services from IntraHealth International (USAID-funded HIV Clinical Technical Assistance Project) since 2015.

Between June and July 2018, the study team conducted 10 focus group discussions (FGDs) with ART providers (nurses, pharmacists, monitoring and evaluation [M&E] officers, health care providers), 2 in-depth interviews (IDIs) with laboratory officers at the National Institute of Pathology, and 22 IDIs with patients who either had no VL test results recorded in their health passports in the past 12 months (n=12), or patients whose most recent VL test results were indicative of an unsuppressed level of VL (>1,000 copies/ml; n=10).

KEY MESSAGES

- Few patients understand the purpose of viral load (VL) testing nor the role it plays in their treatment.
- VL testing may be done, but results are often not communicated to patients, nor is meaningful counseling provided even when patients are in treatment failure.
- Despite lack of patient familiarity with VL testing, some providers expect patients to monitor and manage their own VL testing schedule.
- Strengthening providers' knowledge and skills in HIV care and VL testing, and their ability to comprehensively counsel patients about their VL result is critical.

RESULTS

Most patients lack basic knowledge of viral load testing.

When the interviewer explained that ART patients should receive a VL test every 12 months to monitor the effectiveness of HIV treatment, nine patients said that they had heard of VL testing and ten said they had not. Most who claimed familiarity with VL testing did not, however, provide any further detail as evidence of their understanding. Indeed, only a few patients (5 of 22) could describe the purpose of the test in sufficient terms: “to see how the medication is working,” “to see if the virus is high or low,” “to see how much virus is in the blood,” “to know if there's a change,” or “to know if the virus is increasing or decreasing.”

While nearly every patient knew approximately how frequently their blood was drawn and/or how frequently in the last 12 months, very few said that

they had been told how often they should be tested for VL. Further, several (5 of 22) mentioned that they did not know why their blood was drawn:

“ I want to know why it has to be done. Why I have to go for blood testing.”

—Patient no VL results, centralized facility

An M&E officer at a centralized facility corroborated this situation:

“ The blood is drawn, but they do not explain what the blood is for and what it will mean.”

This uncertainty about the reasons for blood tests was further evidenced by participants' responses to other VL-related questions, in which they talked about their HIV diagnosis, CD4 count, or being advised to drink more water—a response likely referring to a creatinine test. For example, when asked about the meaning of “virally suppressed,” one patient responded:

“ It means that your CD4 count is fine, they are not high.”

—Patient no VL results, centralized facility

Patients who were in treatment failure generally demonstrated a higher level of knowledge related to VL testing. Several patients—all of whom were in treatment failure—showed some understanding of terms describing VL results, including “suppressed,” “TND (target not detected),” or “unsuppressed.” The following exchange with a patient in a centralized facility who has been on ART for 10 years illustrates a relatively higher level of knowledge than typically found among the interview participants:

Interviewer: *Why is it important that the viral load test is done?*

Respondent: *To see how much virus you have in your blood.*

I: *In your opinion, what does viral load suppression mean?*

R: *It will make you live good.*

I: *And what does it mean when the viral load is undetectable?*

R: *You have HIV, but just small viral load.*

Even in cases of relative understanding, clear gaps were evident as seen in this interview with a patient in a centralized facility:

I: *What does it mean when they say the virus is undetectable in the blood?*

R: *It means the virus is killed by the tablets.*

I: *And if they say the virus is not suppressed?*

R: *This means that the tablets only work sometimes, not every time.*

While this response suggests a basic understanding of viral load results, it is evident that the patient fundamentally misunderstands how ART works and the factors that influence its efficacy. The latter is particularly important to achieving and maintaining suppression.

However, even this level of knowledge is not universal. One patient who had been on ART for 17 years, and was presently in treatment failure, had no knowledge of viral suppression. Among other patients who were tested and received their results, few understood the implications.

Patient counseling by providers often fell short of conveying a thorough understanding of VL testing.

The counseling patients received was generally non-specific. Several participants said their results were described in relative terms (e.g., “viral load is up,” “viral load is high,” “virus decreased a bit”) while others said they had simply been told their results were “fine.”

“ The problem is that they only check at your medical report. But they won't tell you anything.... Never told me about my CD4 count or virus, maybe they are not allowed to tell us.... They only say I am fine.”

—Patient, centralized facility

An M&E officer at a centralized site had a similar impression of discussions about VL results between providers and patients:

“ When the results come, they do not explain viral load, and what it is for. The nurses should give proper feedback on the

tests.... If a patient understands why a viral load must be taken and how often it must be taken, it will work better.”

Participants expressed a desire to better understand VL as well as the relationship between VL results and their relative health and prognosis:

“ I do want to learn how I am or my viral load status.”

—Patient, centralized facility

“ [I want to have my VL tested] so that I know how the medication is working in my body. Because sometimes you can keep on taking your medication, but it might not be working.”

—Patient, centralized facility

Staff believe patients understand VL testing, and expect them to request tests.

In contrast to what the patients reported, facility staff believed that one-half or more of their patients knew about VL testing.

“ Fifty to sixty percent know that their blood should be taken for the viral load test.”

—Nurse, centralized facility

“ We have a relationship with our patients and we involve them in their own care. The nurse who is responsible for the patient needs to inform the patient that they will take viral load test after six months. Then the patient should know that their blood will be taken for viral load testing. And if after six months their viral load is suppressed, then they know it will be done once a year. Most of the patients who come for refill even remind the nurse that the viral load test must be done in a specific month. So most of the patients know in which month their blood should be drawn. So I will say 80 percent know.”

—Nurse, decentralized facility

To support scheduled VL testing, some staff hoped that patients would track their own VL testing schedule and request the test.

“ Through health education we normally emphasize to the patients that it is not only our role to remember that the viral load is due but, it is also the responsibility of the patients to remind us as health workers, ‘the last time you took my blood was last year.’ Sometimes it is just documentation problems. But then we also encourage them to remind us because we are also human beings and make errors. So, they must just remind us about the viral load so that their viral loads are done.”

—Data clerk/Admin officer, centralized facility

One patient corroborated staff comments about making patients responsible for their VL testing:

“ Sometimes they promise you that they will do it at the next follow-up. But when you go, they will be in a hurry. And then they do not take the blood for the viral load. And when you tell them it has been a long time and you have not yet seen your viral load, then they say you should ask for it. You should ask them to see your viral load. But we, like us, we do not know the procedure for that...”

—Patient, no VL result, centralized facility

Providers say they are transcribing test results yet many patients do not have recorded results.

Providers reported that results were generally recorded in the patient care booklets (PCBs); however a review of routine service records found that only about half of patients had recent VL test results. Some providers described challenges related to sample transport and prolonged turnaround times at the National Institute of Pathology (NIP) facilities, but these instances were infrequent. Instead, the most prevalent issue cited by facility staff was documentation—copying results into PCBs—or correctly filing results.

“ The result of the patients come in a bundle and when the patient comes you have to turn page after page to look for it. Then sometimes the results did not come and sometimes when it comes you don’t find it because you cannot be paging for every

patient because you have a lot of patients and that is the reason.”

—Nurse, decentralized facility

NIP staff also indicated that archiving and filing results was likely the greatest barrier to patients having VL results on record.

“ We have observed at sites...the tests have been done and the reports have been delivered. But we find that archiving and filing results is a challenge to the Ministry. To the extent where you will have piles of results just lying there. That is a bit of a waste. And it will not be easy for them to find results. And then they will come to us and ask for results. That alone should be looked at in a better way—how do we do it. So that we can improve the turnaround time.”

—Nurse, NIP VL testing facility

Some staff described procedures established at their facilities to improve the recording or tracing of results.

“ When the result comes, I always ask the health assistant to put the result in the patient care booklet and then record it. If she did not record it, she has to put it in and when I get that file then I have to record it and also staple it.”

—Nurse, decentralized facility

“ When we are using barcodes, we put them on the health passport, one is on the form and one is on the specimen bottles. The one with barcode is very quick and easy because we just go to the NIP and they trace with the barcode.”

—Health assistant, centralized facility

CONCLUSIONS AND RECOMMENDATIONS

These findings highlight challenges in completing VL testing per the national guidelines as well as the need to strengthen patients’ participation in their own care. Generally, patients had minimal understanding about the role routine blood tests play in their treatment. Nevertheless, patients showed interest in monitoring their health and the progression of the virus. A brief response from providers that they are “fine,” did not seem to satisfy their interest in understanding their health.

We recommend the following actions to address the VL challenges documented:

1. Improve awareness and understanding of VL testing and encourage patients to ask their health care provider about their VL testing and results during routine visits.
2. Improve providers’ communication skills with patients through supportive supervision sessions or through a training workshop.
3. Ensure timely recording of VL results in the PCBs and health passports by developing standard operating procedures for health care providers and M&E officers.
4. Adopt the use of barcodes in clinical care to effectively monitor and track patients throughout the HIV care cascade.

REFERENCES

¹Project SOAR. 2018. “Namibia has a strong foundation for implementing the treat all guidelines and reaching the UNAIDS 90-90-90 targets,” *Project SOAR Results Brief*. Washington, DC: Population Council.

Suggested citation: Project SOAR. 2019. “Viral load testing: room for improvement in Namibia’s antiretroviral treatment services,” *Project SOAR Results Brief*. Washington, DC: Population Council.