

Viral load testing for HIV treatment monitoring



WHAT YOU NEED TO KNOW

The number of people living with HIV (PLHIV) who are enrolled on anti-retroviral treatment (ART) in Uganda has increased rapidly in recent years from about 330,000 in 2011 to about 750,896 in 2014.¹ Each of these people needs to have their “viral load” monitored through regular laboratory tests. The “viral load” test measures the number of HIV particles or “copies” in your blood.

The purpose of ART is to fight HIV and lower the viral load. Hence, the purpose of viral load monitoring is to keep track of the performance of the treatment and to ensure early detection of treatment failure, which helps to minimise drug resistance. The identification of ART treatment failure has been a major problem in Uganda, and Ministry of Health reports that drug resistance is becoming an increasing concern.²

Fortunately, Ministry of Health has rolled out viral load testing services. This information sheet is intended to help guide you to appreciate the need for viral load testing, advocate for it, and ask for it from your doctor.

Why is a viral load test important?

As HIV reproduces within the body, the viral load increases. A higher viral load means that HIV is destroying more immune cells (CD4+ T-cells). This compromises your immunity and lowers the body’s ability to fight off infections. You will quickly progress to AIDS and your health will deteriorate.

HIV treatment (ART) involves taking a combination of HIV medicines (called an HIV regimen) every day. When you take HIV medicines as prescribed – without defaulting – your viral load should reduce, ideally to levels that are undetectable by current laboratory viral load tests. You need regular viral load tests to check whether your treatment is working effectively. Remember that when your viral load begins to rise, you will not feel it. Therefore, a rising viral load, detected early through a laboratory test, will enable your doctor to know when one or more of the medicines in your regimen may no longer be working well. Hence they will change your regimen to keep you healthy.

What is “undetectable” viral load?

The laboratory test determines the number of HIV copies per millilitre (mL) of your blood. This can be as high as 1,000,000 copies or they can be so few that they are “undetectable”. In general, your viral load will be declared “undetectable” if it is under 1000 copies per mL of your blood, because at that level, depending on the technology used, the laboratory test will not be able to detect the virus.

1 The HIV and AIDS Uganda Country Progress Report 2014. http://www.unaids.org/sites/default/files/country/documents/UGA_narrative_report_2015.pdf

2 It has been estimated that 11.6% of ART clients at a sample of ART sites have shown evidence of drug resistance, according to a presentation, “Review of WHO June 2013 Recommendations and the State of ART Monitoring in Uganda”. November 2013



Does an undetectable viral load mean that I no longer have HIV?

Reaching an undetectable viral load does not mean that you are cured of HIV. It only means that so few copies of the virus are present in your blood that monitoring tests are unable to detect them. Even with an undetectable viral load, an HIV-positive person still has the virus and if you stop taking drugs, HIV will replicate and your viral load will rise again. The medicines you have been taking may no longer work for you because the virus will have developed resistance to them.

So what are the benefits of having an undetectable viral load?

Having an undetectable HIV viral load means that the virus is under control and you can live a longer, healthier life. It also means that your chances of transmitting the virus to your sexual partner are reduced significantly.³ It is however, important that you and your partner continue using HIV prevention measures because you could be infected by a new kind of virus which may not be controllable by the medicines you are currently taking.

In addition, you could infect your partner because viral load tests measure the amount of HIV in the blood, not in your semen or vaginal fluids. It is not yet known how much virus needs to be present in body fluids for transmission to take place. So you might still infect your partner if you have unprotected sex.

How is the viral load test different from a CD4 cell count?

CD4 cells (often called T-cells or T-helper cells) are a type of white blood cells that play a major role in protecting your body from infection. Once a person is infected with HIV, the virus begins to attack and destroy the CD4 cells of the person's immune system. A CD4 count is a lab test that measures the number of CD4 cells in your blood, indicating the strength of your immune system.

The CD4 count of an uninfected person who is generally in good health ranges from 500 cells/mm³ to 1,200 cells/mm³. A very low CD4 count (less than 200 cells/mm³) is one of the ways to determine whether a person infected with HIV needs to start ART. In short, the CD4 count is used to determine eligibility for ART, while the viral test is used to monitor how well ART is controlling the virus.

When do I need a viral load test?

Anyone that has been on ART treatment for at least 6 months needs a viral load test. Thereafter, you will need at least one test per year.

Where are viral load tests done?

Viral load tests are done at the Central Public Health Laboratory in Kampala. The lab's capacity has been expanded to ensure that all people on ART access testing services. There are also several other laboratories that conduct viral load tests, mostly for research. Please, note that it is your doctor to prescribe a test and to have your blood sample taken for testing. Ministry of Health collects blood samples from accredited ART centres and returns the results the centres.

³ Studies have shown that HIV-positive people who use ART can reduce the likelihood of transmitting the virus to their HIV-negative partners by as much as 92–96%.