

CMScript

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Member of a medical scheme? Know your guaranteed benefits!



Human Immunodeficiency Virus

South Africa is still heavily affected by Human Immunodeficiency Virus (HIV) infections. More than 15% of the country's population aged 15–49 years are living with the disease. The total number of persons living with HIV in the country has increased from an estimated 4,72 million in 2002 to 7,03 million by 2016. This pattern shows that there has been a steady increase in the number of HIV infections in South Africa. Antiretroviral Therapy (ART) has on the other hand converted HIV infection from an almost universally fatal illness to a chronic manageable disease. This CMScript focuses on HIV infections in adults.

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Introduction

There is a need to strengthen HIV prevention and management in line with the National Department of Health's new targets to ensure that 90% of people living with HIV know their status; 90% of people diagnosed with HIV infection have access to Anti-Retroviral Therapy (ART); and 90% of all people receiving ART have suppressed viral loads (VLs). New guidelines have been developed to provide the necessary direction and give impetus towards improved management of HIV infections across different populations.

Types of HIV

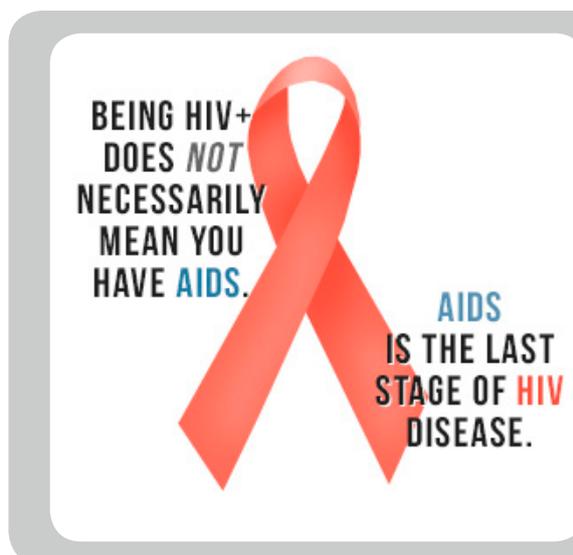
HIV 1 is most common in sub-Saharan Africa and throughout the world. HIV 2 is mainly found in West Central Africa, parts of Europe and India. HIV2 causes a more slowly progressive disease than HIV 1.

How is HIV transmitted?

HIV is transmitted through unprotected sexual contact with an infected partner; exposure of broken skin or wound to infected blood or body fluids; transfusion with HIV-infected blood; injection with contaminated objects; as well as mother to child transmission during pregnancy, birth or breastfeeding.

Prevention

- Abstinence is the only 100 % effective method of not acquiring HIV



- Monogamous relationship by having only one sex partner
- Having protected sexual intercourse by using condoms (female or male) every time during sexual intercourse
- Use of sterile needles

Stages of HIV infection

According to the World Health Organization (WHO), the different stages of infection are as follows:

Stage 1 - Patients are asymptomatic or have persistent generalised swollen lymph nodes (lymphadenopathy for longer than 6 months).

Stage 2 - Patients may have mild symptoms, some may experience unexplained weight loss and recurrent

respiratory tract infections such as sinusitis (inflamed sinuses), bronchitis (Inflammation of the lining of your bronchial tubes, which carry air to and from your lungs), middle ear infections and pharyngitis (Inflammation of the throat).

Stage 3 - As the disease progresses, additional clinical signs may appear such as unexplained diarrhoea, pulmonary (lung) tuberculosis, and severe bacterial infections such as pneumonia, meningitis (inflammation of the protective membranes covering the brain and spinal cord known as the meninges), bone and joint infections.

Stage 4 – the stage characterised by opportunistic infections, opportunistic cancers, recurrent pneumonias, severe weight loss, meningitis, memory loss.

How is HIV diagnosed?

Pre-test counselling should be provided to patients before any testing can be done. HIV testing can be done in the providers' rooms using a rapid test kit to diagnose HIV. Blood taken from a finger prick or oral mucous can be used for testing. Results are often available within 20 to 30 minutes. If the test results are positive, another rapid test may be done to confirm the diagnosis. When the initial and the confirmatory test are conflicting, the provider needs to send blood to the laboratory to confirm the diagnosis.

HIV blood test can also be done directly at the laboratory. The most commonly used blood test is an Enzyme Linked Immunosorbent Assay (ELISA). Once the blood result is positive, a second test may be done to confirm the result.

Benefits of knowing one's HIV status

Ability to plan for the future such as making decisions about having children, learning how to protect self and others by using condoms, ability to access care and support including treatment to prevent opportunistic infections such as tuberculosis (TB).

Treatment

The CMS published circular (73 of 2016) in support of the new guidelines highlighting the fact that, since 1st September 2016, the following criteria has been specified to start patients on lifelong ART:

- all HIV positive children, adolescents and adults regardless of CD4 count will be offered ART treatment, giving priority to those with CD4 ≤ 350 .
- patients in the Pre-ART and Wellness programme shall be considered for UTT (Universal Test and Treat).

- willingness and readiness to start ART shall be assessed and patients who are not ready for treatment shall be kept in the wellness programme, with continuous counseling at every visit on the importance of early treatment and scheduled CD4 as per SA clinical guidelines.
- baseline monitoring of CD4 count will still be carried out as it is the key factor in determining the need to initiate Opportunistic Infection prophylaxis at CD4 ≤ 200 , identify eligibility for cryptococcal antigen (CrAg) at CD4 ≤ 100 , prioritisation at CD4 ≤ 350 and fast tracking at CD4 ≤ 200 .

Standard ART consists of the use of at least three medications to maximally suppress HIV and stop the progression of the HIV disease.

ARTs commonly used are:

- Nucleoside Reverse Transcriptase (NRTI) inhibitors such as Zidovudine (AZT), Lamivudine (3TC), Tenofovir (TDF) and Emtricitabine (FTC).
- Non-Nucleoside Transcriptase (NNRTI) inhibitors like Nevirapine (NVP) and Efavirenz (EFV)
- Protease Inhibitors (PI) such as Lopinavir/Ritonavir (LPV/r)

Pre-exposure prophylaxis (PrEP)

The new guidelines recommend that people with a substantial risk of HIV infection should be provided with daily Pre-Exposure Prophylaxis (PrEP) as part of a combined HIV prevention strategy. PrEP is defined as the use of antiretroviral drugs by HIV-negative people, before potential exposure to HIV, to block the acquisition of HIV infection. The recommended regimen which is to be taken daily is Tenofovir (TDF) or a combination of Tenofovir and Emtricitabine (Truvada). Healthcare providers should assess and identify the right candidates for PrEP based on their reported risk behaviours.

Post-exposure prophylaxis (PEP)

PEP is treatment used to prevent HIV infection after exposure to blood or bodily fluids such as semen and vaginal fluids. Exposure may be due to needle stick injuries, sexual assault or rape and unprotected sexual intercourse. Pre- and post-test counselling should be offered to all exposed persons at any testing facility.

PEP should be administered as soon as possible, that is within 72 hours of the incident. All PEP ARV medication must be administered for a full 28 days' period. Condom usage for 6 months to protect the partner is very important until the ELISA test is negative. Triple ARV therapy is also used for PEP.

Cotrimoxazole Prophylaxis

Patients with CD4 count of 200 or stage 2, 3 or 4 HIV disease (including TB) need Cotrimoxazole prophylaxis. Dapsone is given to patients who have had a reaction to Cotrimoxazole.

Immunizations

Influenza vaccine is recommended yearly before the influenza season for all HIV infected patients.

Substituting ART

There are times when treatment needs to be changed. This can happen when a patient experiences symptoms of drug toxicity due to immune recovery especially after initiation of ART. This however usually resolves spontaneously. Replacing the medicine which is causing side-effects may be all that is needed to clear the drug toxicity.

There are also instances when treatment needs to be switched due to virological failure. Virological failure is considered when the viral load is more than 1000 copies/ml on two occasions despite intensive adherence counselling. Virological failure is almost always related to poor adherence, often due to poor attention by the clinician to drug toxicity, or where social factors have not been addressed.

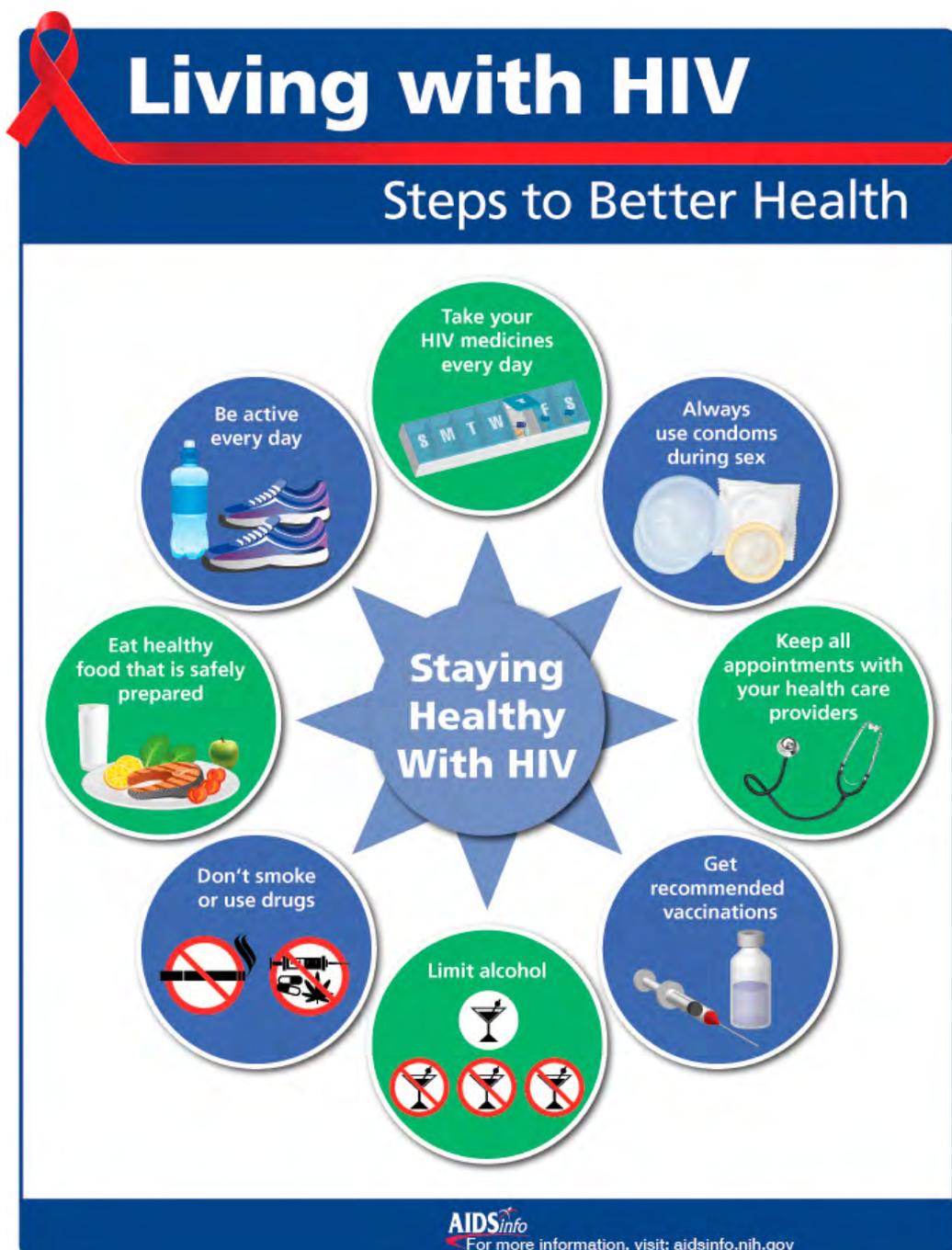
Issues which impact adherence to treatment

Personal, and/or environmental issues may hamper adherence to treatment. Personal issues can be internalised stigma; external discrimination, denial of diagnosis, unresolved grief reaction, lack of disclosure, guilt, alcohol and other substance abuse or addiction, mental illness and dementia.

Environmental issues which can impact adherence relate to pill burden, side-effects of medication, income and food insecurity – underlying starvation, shift work and time off from the workplace to attend appointments. The perceived negative attitude of health workers can also lead to non-adherence.

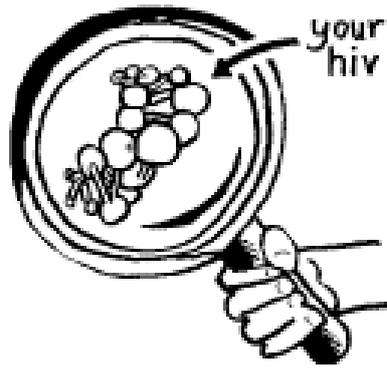
Ways to promote adherence

Patients need support from the medical team concerning adherence at all points of intervention, including discussing a treatment plan that the patient can understand and commit to. Information needs to be given to patients about undesirable drug-drug interactions that can be caused by the use of herbs and other medications including over-the-counter preparations. These drug-drug



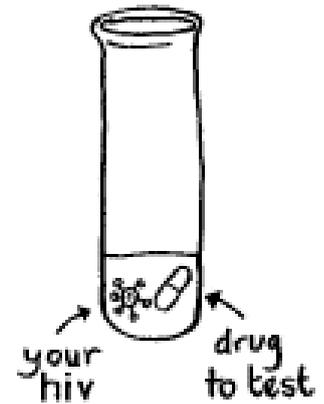
1. genotype

Genotype tests look to see how the structure of a sample of your HIV may have changed.



2. phenotype

Phenotype tests see whether HIV drugs still work to control your type of HIV.



interactions may lead to kidney and liver toxicity, and may even weaken the effect of antiretroviral drugs.

In addition, missed appointments for medicine pick-ups are a powerful predictor of poor adherence, and should trigger immediate questions about issues that may affect attendance and adherence. Attendance and participation in a support group, and having a treatment buddy can be beneficial.

Regarding employment, patients should be encouraged to return to the job market as soon as it is possible, or to seek support. Employer support is also crucial for medical check-ups and monthly medication pick-ups.

Follow-up blood tests

Blood tests such as CD4 count and Viral Load will be monitored once treatment is started. Other blood tests such as Full Blood Count (FBC) or Haemoglobin, Creatinine (kidney function) and Alanine transaminase (ALT) for the liver function may need monitoring depending on the treatment regimen that the patient has been put on.

Resistance testing

Resistance occurs when ARTs prescribed cannot stop the virus from multiplying in the body anymore. Resistance testing is recommended for all patients failing first-line NNRTI-based ART regimens, with failure defined as two VL measurements of more than a 1000 RNA copies/ml, with adherence and other issues addressed.

Resistance tests help to provide information about the ARTs that the virus is resistant to and may mean that the patient is not adhering to treatment. This information allows the clinician, if possible together with an expert to decide on the most appropriate second-line regimen. Resistance testing is also suggested for all patients failing second line PI-based ART regimen.

What is covered under PMB level of care?

HIV is a PMB condition. All medical schemes are required by law to pay for the diagnosis, treatment and care costs of the condition in full. The following should therefore be paid according to the PMB regulations:

- HIV voluntary counselling and testing; Co-trimoxazole as preventative therapy; screening and preventative therapy for TB; diagnosis and treatment of sexually transmitted infections; pain management in palliative care; treatment of opportunistic infections; prevention of mother-to-child transmission of HIV; post-exposure prophylaxis following occupational exposure or sexual assault; medical management and medication, including the provision of anti-retroviral therapy; as well as ongoing monitoring for medicine effectiveness and safety, to the extent provided for in the national guidelines applicable in the public sector.
- If you have been exposed to HIV or diagnosed with the condition, it is important to confirm with your medical scheme about the number and types of tests, consultations and medications covered for the diagnosis. This is important because the medical scheme is allowed to limit the number and types of tests, as well as the number of consultations that will be covered in a calendar year. The medical scheme is also allowed to have a formulary (list of medications) approved for the treatment of HIV according to the PMB regulation.
- However, should the treating doctor see the need for additional tests, consultations or medications which are not normally funded by your medical scheme he/she should write a clinical motivation to your scheme; and the scheme must then pay for the requested services.
- The CMS in line with the requirements of the PMB regulations, has adopted the current national HIV treatment guidelines. The medical schemes should

therefore fund the diagnosis, treatment and care of HIV according to the recently adopted National Guidelines.

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WHAT ARE PRESCRIBED MINIMUM BENEFITS?

Prescribed Minimum Benefits (PMBs) are defined by law. They are the minimum level of diagnosis, treatment, and care that your medical scheme must cover – and it must pay for your PMB condition/s from its risk pool and in full. There are medical interventions available over and above those prescribed for PMB conditions but your scheme may choose not to pay for them. A designated service provider (DSP) is a healthcare provider (e.g. doctor, pharmacist, hospital) that is your medical scheme's first choice when you need treatment or care for a PMB condition. You can use a non-DSP voluntarily or involuntarily but be aware that when you choose to use a non-DSP, you may have to pay a portion of the bill as a co-payment. PMBs include 270 serious health conditions, any emergency condition, and 25 chronic diseases; they can be found on our [website](#)

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