HIV NURSING MATTERS

A publication of the Southern African HIV Clinicians Society

Viral load monitoring in children with HIV: Do's and Don'ts

Fundamental steps in the clinical assessment of HIV-positive patients

HIV self-screening: Early implementation progress

Taking a clinical sexual history in MSM and transgender key populations

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Telephone: **+27 (0) 11 728 7365**

Email: **conference@sahivsoc.org**

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inside

HIV Nursing Matters focuses on patient-centred holistic care

Guest editorial

Dr Nicola Wattrus
MB BCh, Dip HIV Man (SA)

Nelson Mandela University
Tuberculosis Research Unit,
Empilweni TB Hospital,
Port Elizabeth

Welcome to this edition of *HIV Nursing Matters*. Sitting here writing this editorial, I feel an overwhelming sense of optimism and excitement for the field of HIV and infectious diseases in South Africa. With this year off to a positive political start, and now an exciting future ahead with the advent of dolutegravir-containing fixed-dose antiretroviral drug combinations, as well as groundbreaking developments in the field of drug-resistant TB research and self-screening roll-out, I really do feel that there is a bright future ahead for clinicians in our field and especially the patients for whom we care – the main reason why we do what we do.

I have always found *HIV Nursing Matters* to be an extremely practical resource for clinicians on the ground. This edition is no exception, covering today's relevant topical issues, including: HIV self-screening; practical guidance on how to conduct a thorough clinical assessment (a refresher); and pertinent guidance on sexual history-taking in key populations, including men who have sex with men (MSM) and transgender people (TG). There is also hands-on guidance on the *Do's and Don'ts* of viral load monitoring in children – a worthwhile read now that fewer children are being infected with HIV through the success of the robust prevention of mother-to-child transmission (PMTCT) programme, and consequently fewer clinicians are dealing with children on a daily basis, necessitating that we all refresh our knowledge to ensure we are identifying and managing children living with HIV appropriately. All the articles, as we've come to expect from *HIV Nursing Matters*, focus on patient-centred holistic care.

As a passionate clinician, I trust that you will feel as inspired as I have reading through the interesting array of articles herein. Keep this resource close at hand and share far and wide with colleagues.

Happy reading!

HIV NURSING MATTERS

The Team

For more information
SA HIV Clinicians Society
Suite 233 Post Net Killarney
Private Bag X2600
Houghton
2041
www.sahivsoc.org

Tel: +27 (0) 11 728 7365
Fax: +27 (0) 11 728 1251
E-mail: sahivsoc@sahivsoc.org

Message from the president

Prof. Yunus Moosa
President: Southern African HIV Clinicians Society

HIV is now recognised as a chronic disease with a near-normal life expectancy with effective treatment. This complete reversal from certain death has been a long and torturous journey. Educational platforms, such as *HIV Nursing Matters*, remain the life-line to keeping pace with new knowledge and the rapidly evolving management of this disease.

The progress in HIV therapeutics has been nothing short of miraculous. The much-anticipated introduction of dolutegravir (DTG) – a relatively new integrase strand transfer inhibitor – into front-line treatment in South Africa is expected to be a significant game-changer.

The well publicised 90-90-90 challenge to the HIV world is gaining momentum. The first 90 – identifying patients who are infected – requires regular, repeated testing of at-risk populations. Empowering people to self-test is a critical step towards realising this challenge and reducing the burden of repeated testing on the Department of Health. Of critical importance to the last 90 is effective viral load monitoring. *HIV Nursing Matters* visits the importance of viral load monitoring and, although directed to children, much of the presentation speaks to all age groups.

With around 4 million patients accessing antiretroviral treatment (ART) from a healthcare system that is underfunded and overburdened, it should not be surprising that the quality of clinical assessment of patients declines over time. This magazine provides an excellent overview of the steps in the clinical assessment of patients. The authors remind us of the importance of this aspect of patient care and walk us through the fundamentals of history-taking, clinical examination, investigation and devising a sensible and effective management plan. Eliciting a sexual history from subjects with alternative lifestyles can be daunting for many reasons, including a lack of knowledge and understanding of the sexual practices in the real world. *HIV Nursing Matters* provides well thought out guides on obtaining a sexual history from men who have sex with men (MSM) and transgender (TG) populations.

I would like to congratulate the editors on another impressive edition that covers topics that are practical, relevant and important. I hope you learn as much as I did and the information impacts positively on your management of HIV at the patient and public health level. Let us continue the good fight, keep shoulder to the wheel, and remember that despite what we have achieved, the journey has to continue.

News

Has the break of dawn arrived? An opinion from Ground Zero

Dr Yusuf Moolla, MB ChB, FCP, MMed, Dip HIV Man
Addington Hospital, Durban, South Africa

A glimpse at the reality of AIDS that medical practitioners face regularly and is often not appreciated in research literature.

As the heaviness of night sets in at the coast of Durban, South Africa, the sea remains calm. The tide is low and the beach is serene. The scrambling of night staff arriving is heard throughout the hospital. While this shift change brings energised nurses and supportive staff, most doctors are still warming up from the demanding day for the work that now awaits them. The pungent aroma of coffee fills the dining areas of doctors and nurses, and any brief period of silence is quickly broken by the ringing of cellphones. A domestic dispute has resulted in a neck stabbing, an emergency ceasarian section is about to begin, a young teen has attempted suicide with drug ingestion and in the corner of the emergency room sits our dear discreet medical patient.

At the age of 21, this is her first visit to hospital. Walking slowly towards this young lady, her oedematous face is clearly evident. The purplish lumps and bumps that encompass her body dictate the diagnosis. I have never seen Kaposi's sarcoma this bad. It was so engulfing that she couldn't open her eyes, resulting in functional blindness. During the interview with her, it was clearly established that no HIV testing was performed before and the delayed presentation was clearly due to a lack of knowledge of the disease combined with social difficulties. She is alone, with no accompanying family nor friend. The gloomy scenario is far too familiar. The disease had spread to her entire body and she has no chance of any oncology intervention at present due to her untreated immunosuppressive state. We have failed her, and there will be many like her being admitted tonight at this single hospital. This is the story behind the statistics and research articles. This face I shall not forget ...

So how is it possible that we have failed this young lady? The doctors, the health system, the health community at large, the country, and the international community. How is it that hundreds of studies, thousands of pages of HIV literature, millions of dollars spent on HIV research worldwide have not helped her? Local academic workshops and international conferences held recently have not reached her aid and positively affected her in any way. The political will to fight AIDS in our land, which had a stormy start, is gaining momentum, but has ultimately arrived too late to benefit her. At such a young age, the HIV disease is sure to deprive her of any bright future. The jerky start to the epidemic by politicians in this country will never be forgotten at a cost of approximately 300 000 lives.

The retrovirus knows no colour, race, age, sex nor creed. There is absolutely no discrimination with HIV infection. Our young lady is one example of how, despite current efforts in the field of HIV medicine, on the ground, in the battlefields of healthcare in Southern Africa, we are still awaiting deep impact of the work. While prevalence rates have stabilised and quality of life has improved for many, there are still far too many individuals left out in the cold. Lack of education, access to healthcare and poverty hinders many novel innovations to combat the disease. These lives, faces and stories are never felt in the studies that are published. The world spends far more wealth and resources to achieve war than to assist life through healthcare. An HIV-free generation cannot be achieved solely with novel newer drugs, and, thus far. preventive measures have failed to confer a robust decline in incidence. Political will, shared socially responsibility and scientific endeavours now need to reach titanic levels. A new world war has been on-going for more than a decade and millions have passed away.

The break of dawn is upon us, and as the sun rises in this part of Africa, so too does hope, our will and our strength. Data on vaginal dapivirine ring prevention performed at local research institutes look promising and resistance testing drives are being speared-headed locally. Antiretroviral rollout is increasing day by day. The quest has begun on a much anticipated HIV vaccine, mere miles away from our patient. Despite the pristine breath-taking view of the sun rising over the deep blue Indian Ocean from her bed, fourteen floors up, she was unable to see this. Let's stop just talking and dreaming of HIV freedom; let's open our eyes to this grave disease, not succumb to compassion fatigue and forget not that the fight continues against HIV and AIDS in all spheres of healthcare.

Viral load monitoring in children living with HIV: Do's and Don'ts

Louise Kuhn, PhD
Gertrude H. Sergievsky Center, College of Physicians and Surgeons, and Department of Epidemiology, Mailman School of Public Health, Columbia University Medical Center, New York, NY, USA

Programmes providing antiretrovirals (ARVs) for the prevention of mother-to-child HIV transmission (PMTCT) are well functioning in South Africa and have been able to provide this life-saving intervention to the majority of women living with HIV in the country. A national study completed in 2013 observed that only 2.6% of children born to HIV-infected women acquired HIV infection by 4 - 8 weeks.[1] Unfortunately, the number of women living with HIV in South Africa continues to be high and almost a third of women delivering have HIV infection.[1] Even though only a small percentage of their infants will acquire infection, this still leads to substantial numbers of new infant HIV infections.

HIV infection in children progresses rapidly and these children need to start on antiretroviral therapy (ART) as soon as possible.[2] Once started on ART, assuming their caregivers continue to give the children their medications as prescribed, children will be able to bring HIV under control and live healthy lives.[3] Current South African guidelines advise that viral load (VL) should be monitored among children who are being treated with antiretrovirals (ARVs) (Table 1). Here we discuss some of the *Do's and Don'ts* of VL monitoring for children living with HIV.

What is a viral load?

'Viral load' is a measurement of the amount of HIV RNA (viral genetic material) in blood. It is measured in units of viral copies per millilitre (ml) of plasma. Children who have not yet been treated with ARVs and who have not been exposed to PMTCT, have very high VLs, often >1 million copies/ml.[4] This is much higher than usually seen in adults with HIV infection before they start ART. But once started

on ART, children's VLs are expected to come down, just like they do in treated adults.[3] Ideally, we want VLs to be below the lower detection limit (LDL) of the VL test. Most VL tests used in South Africa can detect HIV if there are >50 copies/ml. If the VL test comes back 'undetectable', it does not mean that there is no HIV and that the child has been cured. It just means virus is at such a low level that the test cannot detect it.

Why do we measure viral load?

When we start ART, VL monitoring allows us to track how quickly the child is responding. Once VL is undetectable, VL monitoring is used to establish whether this state is sustained over the long term. If ART is not working well, VL will start climbing before we see other signs of HIV-related damage, like low CD4 counts, poor growth or occurrence of other illnesses. In other words, VL testing provides us with an early warning signal that ART is not working as it should. When we have this information, we can do something about it.

DO: Measure VL in the child at the time of starting ART. This provides a starting point to evaluate the results of the VL tests that will be done later. A child who starts with a very high VL is expected to take a little longer before reaching an undetectable level. A child who starts with a very high VL may also be at higher risk of developing serious clinical illnesses before the ARVs have had a chance to work properly. Such children need to be watched closely and specialist attention may be needed.

DON'T: Don't use the results of a VL test to decide who needs to start ART. All children who have HIV need to start on ART as soon as possible. In most cases those with both high and low VLs will do well on treatment. If a VL test cannot be done before treatment is started or the result is not available, then do not delay treatment. Start without the test result. The result will still be useful to you later.

DO: Measure VL in the child again at least within the first 6 months after starting ART, at least every 6 months until undetectable and at least annually thereafter. In some circumstances, such as changing medications or in neonates and infants, more frequent measurements may be advisable. Review the results when you receive them from the laboratory. Be sure to communicate the results to the family at their next visit.

DON'T: VL tests are expensive. Don't do more VL tests than are needed for the child's care. Distinguish between 'nice to know' and 'need to know'. You can learn a lot about what is happening with the family's ability to give the child ARVs by asking questions and listening carefully.

DO: When the VL is <50 copies/ml or undetectable, communicate this result to the family. Explain that this result means that the ARVs appear to be working well to control HIV. Compliment them on solutions they have come up with to address difficulties with ART adherence. In most cases, an undetectable VL will indicate that the family is coping well with ART.

DON'T: Don't ignore other signs and symptoms in the child and other laboratory test results. While it is the usual case that an undetectable VL will be a marker that all is well with the child, it is not *always* the case. When you notice discrepancies, like a low CD4 count or poor growth, be sure to investigate further. The child may have other health problems in addition to HIV. Or the child may have a complicated response to ART. Be sure to take the full clinical picture into account.

DO: When the VL result comes back >50 copies/ml but <1 000 copies/ml, communicate this result to the family. Explain that this result means that the ARVs appear to be working but have not brought HIV down to the level below detection. Review the prior pattern of VLs. How long ago was the last one done and what was the result? Has enough time elapsed yet for the VL to become undetectable? Ask the family about whether they have had any difficulties with administering the medications. Compliment them on solutions they have come up with to address these difficulties. Explore with them options for difficulties they have not been able to address. In most cases, a VL result in this range will indicate that the family usually copes well with giving ARVs to the child, but are struggling to sustain it all the time.

DON'T: Don't accuse the family of neglecting the child's health. Listen to the difficulties with adherence they express and probe for more information. There are many reasons why a VL test may be in this range. Don't threaten to take

Don't use the results of a VL test to decide who needs to start ART. All children who have HIV need to start on ART as soon as possible.

Table 1: Current South African guidelines on frequency of viral load monitoring and recommended responses

Viral load (VL)	Response
<50* copies/ml	12-monthly VL monitoring and routine adherence support
50* - 1 000 copies/ml	Repeat VL in 6 months Being step-up adherence package if VL still between 50* - 1 000 copies/ml
> 1 000 copies/ml	Begin step-up adherence package Repeat VL in 2 months If <50* copies/ml, then return to routine VL monitoring as above If between 50 and 1 000 copies/ml, then continue step-up adherence and repeat VL after 6 months If >1 000 copies/ml, despite stepped up adherence support AND child is on an NNRTI-based regimen, then discuss with expert regarding new regimen. If >1 000 copes/ml and child is on a PI-based regimen: Reinforce adherence (very difficult to fail PI-based regimen, unless the child received unboosted PI or was on rifampicin-containing TB treatment while on a PI) Discuss with an expert regarding new regimen if VL >30 000 copies/ml If the child received an unboosted PI (e.g. ritonavir alone) in the past or received TB treatment while on an LPV/r regimen and the VL is >1 000 copies/ml, then discuss with an expert regarding new regimen. Resistance testing is indicated in these situations, but should only be done if the child has been reliably taking their ARVs in the past month.

the child off ART. If VL is this low, ART is being given and the child is deriving benefit. Support and encourage the family's strategies to ensure the child receives ARVs as prescribed.

DO: When the VL result comes back as >1 000 copies/ml, communicate this result to the family as soon as possible. Explain that this result means that the ARVs are not working as well as they should to control HIV. Ask the family about whether they have had any difficulties with administering the medications. Compliment them on solutions they have come up with to address these difficulties but probe to what extent their solutions are effective. Explore with them options for difficulties they have not been able to address. Come up with your best counselling to support them with adherence. In most cases, a VL >1 000 copies/ml will indicate that the family is not coping well with giving ART on a consistent basis.

DON'T: Don't blame the family. Listen carefully for difficulties with adherence that they may be uncomfortable to tell you about. Probe for more information, carefully review the treatment history of the child and their other laboratory results. Discuss with colleagues to determine what strategies can be tried. Repeat the VL test. Don't give up, keep searching for solutions.

Conclusions

VL testing is an essential component of monitoring ART in children and provides useful information about how well the child is responding to such therapy. But VL testing is only useful if the results are communicated to families in a way that they can understand and in a manner that will help them to be supported in the difficult task of making sure they give ARVs to their child consistently as prescribed.

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Clinical assessment fundamentals: Adults living with HIV

T Crowley, PhD
D Kitshoff, MCur
F De Lange, BCur, PGDip

Department of Nursing and Midwifery, Stellenbosch University, South Africa

A comprehensive clinical assessment is important and can be performed: when a patient is diagnosed with HIV; before initiating antiretroviral treatment (ART); annually, when assessing the patient's progress on ART; and when the patient presents with symptoms or complaints.

Primary healthcare settings are often under-resourced and overburdened, and this may compromise the quality of care provided to patients. A study in Pretoria about the quality of services in ART clinics found that a physical assessment was performed in only 41.1% of patients and that clinicians rarely did a complete tuberculosis (TB) symptom screening.[1] It is therefore important to emphasise the importance of a comprehensive clinical assessment in ensuring high quality care.

Reasons for a clinical assessment

There are several reasons why a comprehensive clinical assessment should be performed in HIV-positive patients:

- To establish baseline data about the patient's health when diagnosed with HIV and before starting ART.
- To identify opportunistic infections and side-effects.
- To identify any other chronic conditions that may develop while on ART.

There may be several barriers to performing a comprehensive clinical assessment, including human resource constraints and an increased patient load. You may therefore have to identify these barriers and find timeous solutions in order to ensure quality patient care.

Approach to a clinical assessment

We usually perform the clinical assessment according to the SOAP format (Fig. 1).

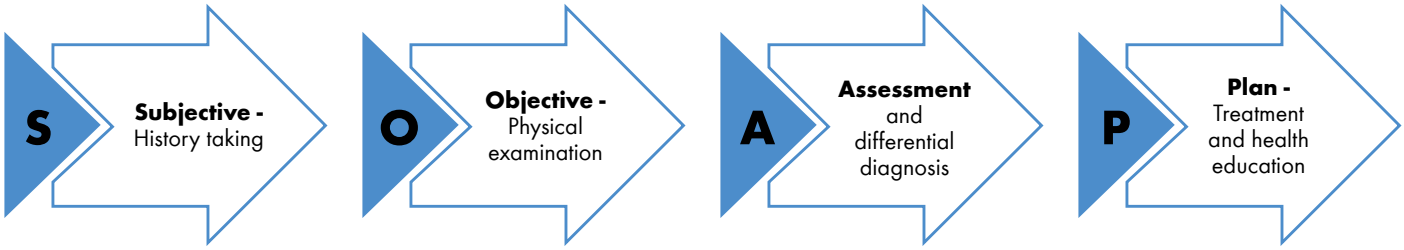

Figure 1: Clinical assessment process (SOAP format).

Subjective history-taking

The subjective history helps us to establish the patient's past history. Table 1 includes some important questions that should be asked.

Table 1: History questions[2,3]

Question	Reason for asking
Main complaint/Reason for visit/History of complaint/How the condition or symptoms are affecting normal daily activities	Patient's account; Involve the patient in their care; Take note of the timeline of events; Note symptoms waking the patient at night
TB symptoms	Identify TB symptoms; Screen for isoniazid preventive treatment (IPT) eligibility
Sexually transmitted infection (STI) symptoms	Identify STI symptoms and sexual risk behaviour
Family planning	Identify if pregnant; Need for pap smear; Need for contraceptive
General symptoms	Identify any problems in other systems especially
Pain-related questions, if pain is a symptom – site of pain, duration, type, intensity, time of day, radiation, associated symptoms, alleviating/aggravating factors	Central nervous system; Musculoskeletal system; Mental health; Gastro-intestinal; Respiratory; Cardiovascular; Genitourinary
Adverse effects	If headache is a symptom, meningitis must be excluded
Chronic disease screening (mental illness, diabetes, hypertension, epilepsy, etc.)	Note any worsening or appearing of symptoms after starting ART due to unmasking or paradoxical immune reconstitution inflammatory syndrome (IRIS)
Adherence	Identify and grade any adverse drug effects*
Medication and allergies (cotrimoxazole, penicillin)	Identify co-morbidities that require comprehensive management
Habits and risk factors, e.g. alcohol, drugs, family violence	Identify any adherence/self-management problems
Social, e.g. family structure, support, employment, disclosure	
Previous significant medical or surgical conditions	Identify all medication including other over-the-counter or traditional medication; Prior exposure to ART or on ART; Identify possible drug interactions
	Identify any issues that need further counselling and that could affect the patient's adherence to treatment
	Identify previous hospitalisations or conditions that may influence the assessment or management plan

* For a more detailed account of possible ART adverse effects, please refer to the 2017 ART guidelines published in the *Southern African Journal of HIV Medicine*.[5]

Objective examination

The objective assessment includes the general assessment, basic data, JACCOLD, systems examination (if indicated) and the review of laboratory investigations.

General assessment

The general assessment starts when the patient enters the clinic. The nurse performing the triage should identify whether the patient is severely ill and needs urgent attention. It is important to be observant when a patient walks into your consultation room. Observe the gait and posture, the general condition (skin, complexion, weight, clothing), vision and hearing, mental condition (orientation, mood, memory, behaviour) and for any abnormal sounds, movements or odours. Patients on thymidine analogue non-nucleoside reverse transcriptase inhibitors (NNRTIs), especially zidovudine and stavudine, may present with lipodystrophy (visceral obesity, breast enlargement, 'buffalo hump, lipoatrophy of the face, limbs and buttocks). Efavirenz may cause gynaecomastia.[3-5]

Basic data

Some basic data e.g. height, weight, body mass index (BMI), temperature, blood pressure, pulse rate, respiratory rate, haemoglobin (Hb) test, urine dipstix and glucose test can be performed in the triage room already. Other tests include a pregnancy test, mantoux test/tuberculin skin test (TST) and GeneXpert. There needs to be a guideline for when certain observations are required. We aim to obtain at least all the basic data for newly diagnosed patients, when initiating ART and as an annual check-up. Note unexplained weight loss, abnormal vitals and positive diagnostic tests.[2,4,6] Blood pressure is assessed at least annually or at every visit in HIV-positive patients who have hypertension. Hb is only assessed if the patient is clinically anaemic or symptomatic. The urine dipstix may be done if indicated in pregnancy to exclude urinary tract infection, or if a patient is on tenofovir to detect proteinuria. Glucose testing may be performed if indicated for patients on drugs such as lopinavir/ritonavir, zidovudine and efavirenz due to the risk of dysglycaemia or for known diabetics. A TST is performed when starting IPT in an adult to determine the duration of IPT.[5]

JACCOLD

'JACCOLD' stands for jaundice, anaemia, cyanosis, clubbing, oedema, lymphadenopathy and dehydration.[4,7] Table 2 provides a summary of the places to examine and the possible conditions that can cause the symptom.

Jaundice: When serum bilirubin levels rise to about twice the upper limit of normal, bilirubin is deposited in the tissues of the body. It causes yellow discolouration of the skin and more dramatically, the apparent discolouration of the sclera. It can cause itching (pruritus).[7]

Anaemia: A deficiency of Hb (anaemia) can produce palmar pallor, pallor of the skin and the palpebral conjunctiva will appear to be pale if the anaemia is severe (<7 g/dl Hb).[7]

Cyanosis: This is due to the presence of deoxygenated blood in superficial blood vessels. Central cyanosis means that there is an abnormal amount of deoxygenated blood in the arteries and a blue discolouration presents in parts of the body with good circulation, such as the tongue. Peripheral cyanosis occurs when blood supply to a certain part of the body is reduced and the tissues extract more oxygen than normal from circulating blood – for example, the lips in cold weather.[7]

Clubbing: The shape of the nails may change in some cardiac and respiratory diseases. Put the dorsal aspects of the distal phalanges together and look for the space formed by the nails. This is called the 'diamond' test. The diamond shape between the angle and the base of the nail disappears in clubbing. In severe cases, the fingers look like drumsticks.[7]

Oedema: Oedema may be pitting when the skin remains indented and only slowly refills.[7]

Lymphadenopathy: Lymphadenopathy is enlarged lymph nodes. Use the tips of the fingers in circular movements, one side at a time. Compare the one side to the other. Check for enlargement, mobility and tenderness with palpation.[7]

Dehydration: Dehydration occurs with excessive loss of fluids due to vomiting, diarrhoea, excessive sweating, etc. It is characterised by loss of skin turgor; however, adults can lose 4 - 6 litres before the skin becomes dry and loose.[7]

Table 2: Places to examine for JACCOLD and possible causes[4-6,8]

Symptom	Places to examine	Causes
Jaundice	☐ Bulbar conjunctiva ☐ Hard palate ☐ Skin	☐ Hepatitis B ☐ Haemolysis of the blood ☐ Obstruction of bile flow from the liver ☐ Hepatocellular failure (various factors such as drug-induced – EFV, LPV/r, ATZ or TB drugs)
Anaemia	☐ Pallor of palpebral conjunctiva ☐ Buccal mucosa ☐ Nail bed ☐ Palm creases ☐ Spoon shaped nails if chronic (koilonychia)	☐ TB, HIV, drugs (AZT, cotrimoxazole), vitamin B12 or iron deficiency
Cyanosis	☐ Blue discolouration of the skin and mucous membranes ☐ Peripheral – extremities ☐ Central – tongue	☐ Lung disease: COPD, pulmonary embolism ☐ Polycythaemia or Hb abnormalities ☐ Cold weather
Clubbing	☐ Change in shape of nails ☐ Fingers – diamond test	☐ Lung cancer, Chronic pulmonary suppuration ☐ Infective endocarditis, Cyanotic heart disease ☐ HIV ☐ Chronic inflammatory bowel disease
Oedema	☐ Press for 3 seconds behind medial malleolus of the tibia and distal shaft of the tibia	☐ Cardiac failure ☐ Liver cirrhosis ☐ Nephrotic syndrome/renal failure – TDF toxicity ☐ Unilateral oedema may be due to local causes such as venous insufficiency, deep vein thrombosis or Kaposi's sarcoma
Lympadenopathy	☐ Cervical, supraclavicular, auxiliary, inguinal	☐ Persistent generalised lymphadenopathy ☐ Systemic or local infections
Dehydration	☐ Poor skin elasticity, loss of skin turgor, rapid pulse, dry mouth, sunken eyes, poor urine output, confusion if severe	☐ Vomiting or diarrhoeal disease due to bacteria, fungal (cryptosporidium, isospora, giardia, microsporidia) or viral (herpes, CMV) infections

ATZ – atazanavir; CMV – cytomegalovirus; EFV – efavirenz; LPV/r – lopinavir/ritonavir; TB – tuberculosis; TDF – tenofovir.

Brief systems examination

In order to do a comprehensive assessment, you need to do a brief examination of the systems. This is summarised in Table 3.

Table 3: Systems examination[2,5,7]

System	What to look for	Causes
Skin	☐ Rashes/lesions/discolouration ☐ Type of rash – macular, papular, vesicular, large blisters, etc. ☐ Distribution – parts affected, especially mucous membranes, itchy/non-itchy	☐ Eczema, seborrhoeic dermatitis ☐ Opportunistic infections: Fungal infections of skin and nails, herpes zoster, popular pruritic eruptions (PPE) ☐ Palmar hyperpigmentation due to FTC ☐ Hypersensitivity reaction due to ABC, NVP ☐ Rash due to EFV/NVP/RAL/TB drugs
Head and neck – thyroid gland	☐ Enlargement	☐ Drug-resistant TB patients – side-effect of ethionamide, pyrazinamide
Eye	☐ Conjunctivitis and other abnormalities	☐ Bacterial or viral
Ear, nose, mouth and throat	☐ Oral and throat candidiasis/ulcers/red throat/ oral leukoplakia ☐ Purulent discharges nose/ear ☐ Ear canal or middle-ear problem	☐ Opportunistic infections
Chest	☐ Cardiovascular – murmurs, raised JVP ☐ Respiratory - asymmetric chest movement, Displaced trachea, adventitious sounds – wheezing, crepitation's, pleural rub ☐ Breasts – males and females – abnormalities	☐ Cardiac failure ☐ Pleural effusion, lower respiratory tract infection ☐ Breast cancer, gynaecomastia
Genitourinary	☐ Ulcers/warts/discharge ☐ Bleeding ☐ Suprapubic tenderness ☐ Cervical tenderness/abnormality ☐ Inguinal lymph nodes	☐ Sexually transmitted infections
Abdomen	☐ GI upset/diarrhoea/nausea ☐ Tenderness ☐ Rigidity/guarding ☐ Masses ☐ Liver enlargement	☐ Opportunistic infections, e.g. cryptosporidiosis/ isosporiasis ☐ Acute abdominal infection, hepatitis ☐ Drug side-effects (e.g. LPV/r, AZT, DRV, RAL, pyrazinamide, ethionamide) ☐ Exclude lactic acidosis if on AZT, d4T or ddI
Musculoskeletal/ neurological	☐ Focal abnormalities/weakness ☐ Peripheral neuropathy ☐ Headache ☐ Neck stiffness ☐ Abnormal reflexes/tone ☐ Joint/tendon/muscle abnormality ☐ Insomnia, vivid dreams, problems with concentration, dizziness, confusion, mood disturbance	☐ HIV encephalopathy/dementia, toxoplasmosis, meningitis ☐ Neuropsychiatric side-effects of EFV, RAL, DTG ☐ Peripheral neuropathy due to drugs such as INH, ethionamide, terizidone/cycloserine

ABC – abacavir; ATZ – atazanavir; AZT – zidovudine; d4T – stavudine; ddI - didanosine; DRV – darunavir; DTG – dolutegravir; EFV – efavirenz; FTC – emtricitibine; INH – isoniazid; JVP – jugular venous pressure; LPV/r – lopinavir/ritonavir; NVP –nevirapine; TDF – tenofovir; RAL – raltegravir.

Blood and other investigations

There are several blood investigations that should be performed on patients who live with HIV and those on ART. These include a CD4 count, viral load, syphilis serology, creatinine clearance, full blood count (FBC), alanine transaminase (ALT), total cholesterol and triglycerides, serum cryptococcal antigen (CrAg) if CD4 count <100 cells/µl, hepatitis B surface antigen, etc. Follow the latest guidelines when deciding when to perform these tests.[3,5,6] Every HIV-positive woman should receive a pap smear on diagnosis and thereafter as indicted in the relevant guidelines.[2,3]

Assessment and plan

Assessment

When you record the findings of the patient assessment, you should summarise any abnormal findings, the diagnosis of any opportunistic infections, TB, STIs, side-effects, etc. Make a clear list of the problems with which the patient presents, prioritise them and provide a differential diagnosis if you are unsure. Note the timeline of events, e.g. onset of symptoms, and investigations and treatment the patient received thus far. Remember that every patient should be staged according to the World Health Organization (WHO) staging system. You should also determine if the patient is eligible for any prophylactic treatment such as cotrimoxazole, fluconazole or IPT.[2]

Plan

The treatment plan for the patient may include prescribing drug treatment for STIs, OIs, TB or ART, prophylaxis e.g. cotrimoxazole (stage 2, 3, 4 or CD4 count <200 cells/µl) or IPT. Co-morbidities and intercurrent illnesses should be treated according to guidelines.[3] When prescribing treatment, indicate the drug name, dosage, route and frequency.

You need to decide if any further investigations are needed and evaluate the patient for chronic care, e.g. eligibility for chronic club membership. Health education/advice (contraception, safe sex, disclosure, adherence, bereavement, etc.) should be provided. The patient can also be referred for support (counselling or patient support group) or specialised care. Ensure that a follow-up appointment is given.[2,3,5]

Documentation

Ensure that you clearly document the history, basic data and key physical examination findings, treatment plan and any referral/follow-up required.

Conclusion

A good clinical assessment is instrumental, but can take time. Performing a comprehensive assessment at certain times such as at diagnosis, ART initiation and for annual review may be more efficient and improve patient outcomes by detecting problems early.

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Early implementation progress of HIV self-screening in South Africa

V K Zishiri, PhD, MBA
J M Francis, MD, PhD
L Wilkinson, MSc
Wits Reproductive Health and HIV Institute, University of the Witwatersrand, Johannesburg, South Africa

Poor testing coverage among men, young people and other vulnerable populations in sub-Saharan Africa continues to hinder achieving the first 90 in the 90-90-90 UNAIDS strategy. In 2015, an estimated 85.5% of HIV-positive adults knew their status in South Africa but only 67.7% of adults had ever been tested with a significantly lower rates among men (61.5%) than women (73.4%).[1] For South Africa to reach these under-tested populations and increase frequency of testing to identify new HIV infections, alternative testing approaches will be necessary. HIV self-screening (HIVSS) may be one such approach.

Overview of HIVSS

The World Health Organization (WHO) defines HIV self-testing as 'a process whereby an individual collects her/his own specimen (oral fluid or blood), performs an HIV rapid diagnostic test and interprets the result, often in a private setting, either alone or with someone he or she trusts'.[2] Fig. 1 depicts how HIV self-testing does not provide a definitive HIV-positive diagnosis. This is because, as with all HIV testing, a single rapid diagnostic test (RDT) is not sufficient to make an HIV-positive diagnosis.

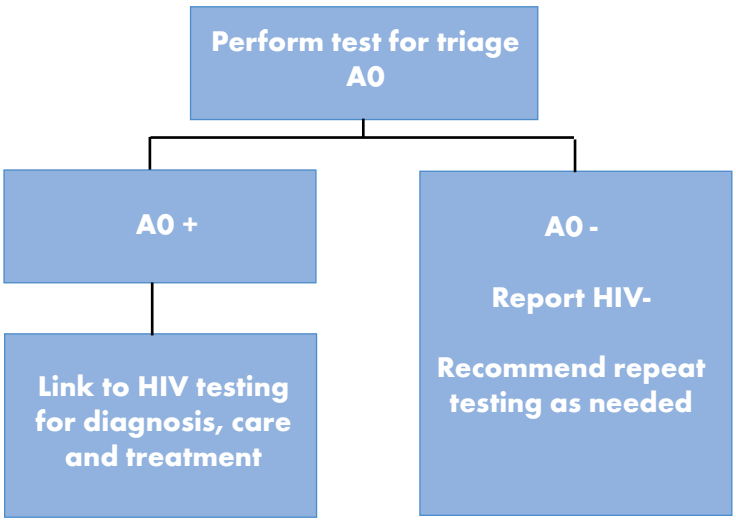

Figure 1: HIV self-testing as a test for triage.

Thus, HIV self-testing is considered to be a test for triage (Fig. 1), which requires individuals with a reactive test (A0+) result to receive further testing from a trained tester using a validated national testing strategy. It is important to consider the role of HIVSS in South Africa as reflected in Table 1 below.

Table 1: What HIVSS is and is not

What HIVSS *is*	**What HIVSS *is not***
HIVSS is a 'screening test' that has the potential to increase access to knowledge of HIV status – thus addressing the first 90 in the 90-90-90 targets.	HIVSS does not provide a definitive HIV-positive diagnosis. All POSITIVE results must be confirmed using the national HIV diagnostic algorithm.
HIVSS is a 'test for triage' with significant potential to extend beyond the limitations of the existing HIV testing infrastructure and address barriers to testing.	In South Africa, it is not intended to replace other HTS modalities from which the majority of the population learn their status.
HIVSS has the potential to increase acceptability and access to HIV testing in South Africa especially in hard-to-reach populations, such as men and adolescents.	

The HIV Self-Testing Africa (STAR) Initiative

The HIV Self-Testing Africa (STAR) Initiative, funded by UNITAID, is a five-year project working with national health authorities in six participating Southern African countries: Malawi, Zambia, Zimbabwe, South Africa, Lesotho and Swaziland to introduce and scale-up HIV self-testing/HIVSS[3] and establish sustainable systems for delivery. It aims to use HIVSS to enable harder-to-reach individuals to learn their HIV status when and where they choose, and to seek the treatment and support they need.

The three initial STAR countries – Malawi, Zambia and Zimbabwe (2015 - 2017) – established that HIVSS can be used accurately,[4] is widely accepted when offered through community, health facility-based and partner-delivered distribution models,[5] and importantly, increases uptake of HIV testing among men, including among male partners of pregnant or postpartum women, adolescents and vulnerable and key populations who do not otherwise use conventional testing services.[6] Previous studies on HIVSS reported that it is not associated with increased social harms compared with provider-initiated community- and facility-based HIV testing services.[7]

WHO and South African policy on HIV self-screening

Based on evidence collected from initial STAR countries and many other studies from around the world, in 2016 the WHO issued a guideline recommending and supporting HIV self-testing implementation. Link to the WHO guideline on HIVSS:[2] http://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1

South Africa's HIV testing services policy and guidelines (2016) already recognised HIVSS as an important testing strategy and *South Africa's National Strategic Plan on HIV, TB and STIs 2017 - 2022* committed to the rollout of combination prevention packages using multiple strategies including HIVSS to combat HIV, TB and STIs.[8] In February 2018, South Africa's national HIVSS guidelines were adopted which include target populations, HIVSS approaches and possible distribution models.

The new HCT register includes a column that captures HIVSS history of clients. It is important for healthcare providers to document prior use of HIVSS for clients presenting for facility-based HIV testing.

Currently in South Africa, HIVSS is performed using the OraQuick test (Fig. 2).

Figure 2: The OraQuick test kit.

OraQuick requires a swab of the gums; it tests for HIV antibodies at an accuracy of 90% when compared with routinely used rapid diagnostic tests; and provides results within 20 minutes.

For further information see Healthcare Worker Poster on HIVSS and how it integrates into the national algorithm for HIV Testing Services included in the December 2017 edition of *HIV Nursing Matters* (Vol.8 No. 2): http://sahivsoc.org/Files/HIV%20Testing%20Algorithm%20Poster%20A1.pdf

In South Africa, HIVSS is initially being implemented through a collaboration between STAR and the NDoH through two implementing partners, namely the Wits Reproductive Health and HIV Institute (Wits RHI) and Society for Family Health (SFH).

Wits RHI HIVSS distribution models under STAR

Wits RHI is implementing HIVSS kits distribution at workplaces, within communities and at healthcare facilities. The models, target groups for HIVSS offer and distribution model descriptions are briefly outlined in Table 2.

All HIVSS distribution is accompanied by client education on HIVSS, a demonstration of how to perform the test and the importance of linkage to confirmatory testing and treatment services where the client screens positive or prevention services where the client screens negative. All HIVSS kits are distributed with information about where to access confirmatory testing and VMMC services, how to obtain further information on HIVSS, a referral card if the person screens positive and contact numbers for Wits RHI staff who can provide support and assist with linkage to confirmatory testing.

Fig. 3 presents routinely collected programme HIVSS kit distribution data from the implementation. Of the 37 070 test kits distributed from November 2017 to March 2018; 54% were in workplaces and 43% in communities. Most of the distributions 28 252 (76%) have been directly to user (primary distribution) with 58% of the distributed HIVSS kits reaching men. Among the primary recipients of the HIVSS kit, 10 014 (36%) reported not having tested for HIV in the last 12-month period and 2 827 (10%) reported to have never tested for HIV.

Table 2: Description of distribution models

Model	To whom is HIVSS offered	Brief description
Workplaces	1. Offer HIVSS to employees*	HIVSS kits are offered to employees at male dominated workplaces at wellness days and/or through mobilisation campaigns after buy-in and agreement has been obtained from the employer. Employees can choose to perform HIVSS in a private space provided at the workplace where assistance is available or take the HIVSS kit home.
Communities	HIVSS Integrated Mobile HIV Testing Service 1. Offer to clients as test for triage* 2. Offer to clients diagnosed HIV-positive to take home for sexual partner(s)	Clients attending existing mobile HIV testing services are offered a choice between HIVSS in a cubicle on-site (with assistance available) or rapid testing with a counsellor as their first test. Where a client screens positive with an HIVSS kit, the client can immediately access confirmatory testing with the counsellor. All clients confirmed HIV positive are offered HIVSS kits to take home to their sexual partners.
	1. Offer HIVSS to all pregnant women at first antenatal care (ANC) visit for their sexual partners, irrespective if client is HIV-positive or -negative. 2. Offer HIVSS to all clients testing HIV-positive at clinics (e.g. TB or STI service) or already known positive at ART clinics for their sexual partners.	Facility-based counsellors and HCWs providing post-test counselling to antenatal women or clients diagnosed HIV+ in other services will offer the client HIVSS kits to take home for their sexual partners.

**Persons to whom HIVSS kits are distributed are entitled to take an HIVSS kit for their partner if their partner is male or if they do not know their partner's status or know that their partner has not recently tested.*

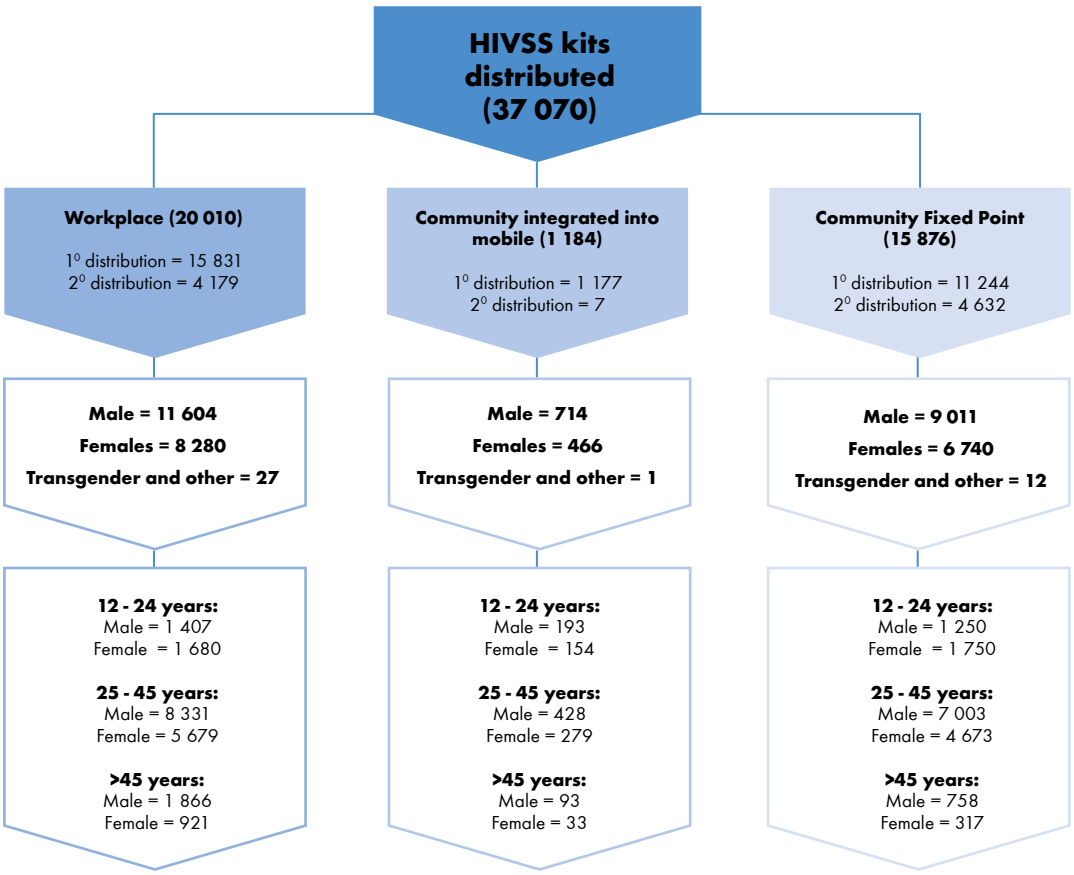

Figure 3: Distribution data from implementation.

** Note: 1 ° distribution is provision of HIVSS kits directly to the intended user; 2 ° distribution is provision of HIVSS kits to one person for offering to another user (typically their sexual partner).*

The healthcare facilities distribution models described in Table 2 are aimed at distributing HIVSS kits for sexual partners of women attending first ANC visits as well as HIV+ index testing. It is anticipated that facility distribution using these models will further improve knowledge of HIV status among an otherwise hard-to-reach population: high-risk men. Partner-delivered facility distribution will be piloted starting in May and is expected, among other things, to facilitate nurses and counsellors in improving index texting and facilitating partner notification as required by HTS guidelines.

Conclusion

Evidence from the Wits RHI early implementation of HIVSS distribution is in agreement with findings from other settings where HIVSS is acceptable and uptake is high, including among otherwise hard-to-reach populations, particularly men.

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Caring for HIV-exposed but -uninfected infants and children

A L Slogrove, MB ChB, FCPaed (SA), MMed (Paed), PhD
Department of Paediatrics & Child Health and Ukwanda Centre for Rural Health, Faculty of Medicine & Health Sciences, Stellenbosch University, Worcester

Due to a successful national programme to prevent peri- and postnatal HIV infection, South Africa has seen a remarkable decline in new paediatric HIV infections. This overwhelming success is tempered by the realisation that despite escaping HIV infection, children born to women living with HIV still bear consequences not experienced by children born to mothers without HIV.[1,2] Due to the persistently high prevalence of pregnant women living with HIV in South Africa, the population of HIV-exposed but -uninfected (HEU) children is substantial, at approximately 25% (1 in 4 children).

Prior to universal maternal antiretroviral therapy (ART), HEU infants had almost double the risk of death during the first year of life compared with HIV-unexposed infants born to women not living with HIV.[3–5] Whether this trend will be reversed with availability of universal maternal ART is not yet known.[6]

Risk for HEU infant illness and death can be thought of in two groups:[2]

1. Universal infant risk factors that predispose to mortality in all infants, even HIV-unexposed, but that occur more often in HEU infants – these include being born pre-term or of low birth weight, receiving suboptimal breastfeeding, maternal mortality, exposure to infections (particularly tuberculosis) and compromised social circumstances.
2. Risk factors unique to HIV-exposed infants – these include exposure during the sensitive period of fetal development to a chronic maternal infectious disease (HIV) and to multiple highly active drugs to treat maternal HIV (ART) both during pregnancy and throughout breastfeeding.

A structured approach to the care of these children may improve their long-term health and well-being. We present a 10-point care package for HEU infants centred on providing optimal basic child health management for all children, both HIV-exposed and -unexposed (Box 1).

Box 1: Care package for HIV-exposed infants (10-point check-list at each contact)

Optimal routine child health management

1. Manage and treat acute problems
2. Provide infant feeding counselling and support
3. Monitor growth and development
4. Provide vaccinations, vitamin A supplementation, antihelminthics (deworming)
5. Screen for tuberculosis contacts and actively manage
6. Ask about mother's health, family planning
7. Provide social support and consider parental HIV disclosure

Optimal routine HIV-exposed infant management

8. Provide prophylaxis for vertical transmission prevention (VTP) as appropriate (according to national guidelines)
9. Exclude HIV infection and perform HIV testing as appropriate (according to national guidelines) and maintain awareness of possibility of HIV infection based on emerging information

Additional HEU infant management

10. Identify high-risk HEU infants (poor birth outcomes, symptoms of anaemia, impaired growth or neurodevelopment, history of hospitalisation) and ensure more regular follow-up and monitoring.

Optimal routine child health management

1. All children benefit from comprehensive child health interventions such as the World Health Organization's (WHO's) integrated management of childhood diseases (IMCI), and management of acute problems is always paramount at each child contact. HEU infants experience the same common childhood infections as HIV-unexposed infants, but HEU infants are at higher risk of a greater severity of these infections – particularly pneumonia, group B streptococcus and invasive pneumococcal disease.[7-9] Active early management of these conditions is essential to prevent severe morbidity and mortality in HEU children.
2. Due to the risk of HIV transmission via breastmilk, many infants were denied the benefits of breastfeeding with detrimental consequences on HEU infant health.[10] The current South African and WHO recommendation is for HEU infants to receive 6 months of exclusive breastfeeding with subsequent appropriate complimentary feeding combined with maternal ART that reduces the risk of postnatal HIV transmission.[11,12] Clear, consistent infant feeding counselling and maternal ART adherence support from healthcare providers is essential to reduce postnatal HIV transmission while securing the benefits of breastfeeding for HEU infants.
3. There is no clear evidence that HEU children experience impaired growth outside of the consequences of suboptimal infant feeding. However, HEU children seem to have worse neurodevelopmental outcomes than HIV-unexposed children. It is uncertain whether this is a consequence of the exposure to HIV, ARVs or the psychosocial environment that HEU children experience.[13] Consistently supporting parents and caregivers in establishing an optimal environment for early childhood development will have benefits for all children.
4. Towards the end of pregnancy, protective maternal antibodies are transferred across the placenta to the fetus providing infants with passive protection against infectious diseases. Women living with HIV transfer lower levels of protective antibodies to their infants and HEU infants may be more susceptible to measles and other infections in the first months of life.[14] HEU infants respond well, however, to vaccination and it should be ensured that they receive timeous administration of all routine infant vaccinations according to the national schedule. Other routine child health interventions that will have benefit in HEU children include regular vitamin A supplementation, that reduces pneumonia and diarrhoea morbidity, and antihelminthics to reduce chronic worm infestation that can result in stunting, anaemia and cognitive deficits in children already possibly at risk for growth and neurodevelopmental impairment.[15]
5. HEU infants experience high rates of exposure to tuberculosis (TB) in the home.[16] As in all infants, diligent screening for infectious TB contacts at each care encounter and active management of TB-exposed infants with isoniazid preventive therapy (IPT) is essential to reduce TB disease and its consequences in HEU infants.

HEU infants respond well to vaccination and should receive timeous administration of all routine vaccinations

6. Maternal well-being is a central component of improved child health for all children and this is even more so for infants born to women living with HIV. The risk of morbidity and mortality in HEU infants is further increased for infants of mothers with severe immune compromise or who die during their child's infancy.[17] Active enquiry about mother's health, her HIV and ART status and family planning desires should be performed at each child visit. Offering HIV testing to breastfeeding women previously tested as HIV-negative needs to become routine care as indicated in the national guidelines.[11] This is essential to ensure that newly acquired maternal HIV infection during breastfeeding is rapidly identified and mother and infant are afforded the available treatment and prophylactic interventions.
7. Poverty is associated with poor child health outcomes and families living in poverty are more likely to be affected by HIV. HIV-affected families experience additional vulnerabilities, including loss of earnings, greater expenditure on healthcare, food insecurity and stigma in the community. These circumstances may alter health-seeking behaviour and can lead to economic, physical and emotional instability for HIV-exposed children, even if HIV-uninfected.[18] Assistance in accessing available social support programmes should form part of the comprehensive care of all children and particularly HEU children.

Optimal routine HIV-exposed infant management

8. It is vital that effective programmes and systems are in place to prevent peri- and postnatal HIV infection from occurring. Maternal ART is the most effective means of preventing perinatal HIV infection and ensuring the safety of breastfeeding for HIV-exposed infants.[19] At each child health encounter, mothers and caregivers should be supported in maintaining optimal adherence to both maternal ART and infant ARV prophylaxis through counselling and joint problem-solving with healthcare professionals to overcome challenges with access to, administration of, or side-effects experienced from ARVs. Cotrimoxazole prophylaxis should be provided to all HIV-exposed infants until HIV infection has been confidently excluded through age-appropriate testing and all HIV exposure via breastfeeding has ceased. This is to ensure the prevention of pneumocystis pneumonia in infants already HIV-infected but not yet diagnosed as HIV-positive. Prolonged cotrimoxazole prophylaxis provides no additional benefit to HEU infants and should not be continued long-term in such infants.[20]
9. In addition to routine HIV-testing of HIV-exposed infants according to national guidelines, HIV infection should be excluded in all HIV-exposed and -unexposed infants – regardless of the results or timing of prior testing – when there are symptoms of HIV or any severe illness including severe pneumonia, diarrhoea, tuberculosis, severe acute malnutrition or neurodevelopmental delay.[11] A new diagnosis of HIV in a parent or sibling should prompt further testing of all children in the family irrespective of age and the presence or absence of symptoms. In the case of a new diagnosis in a mother, HIV-infection should immediately be excluded in her infant.

Special issues in HEU infants and children

10. Infants born to women living with HIV are more often preterm and of low birth weight and these adverse birth outcomes continue to occur in HIV-infected women despite effective ART.[21,22] Although there are no ARVs that are clearly teratogenic, there are concerns of negative consequences regarding some drugs. Zidovudine (AZT) can cause a transient anaemia in infants after *in utero* or postpartum exposure and should be stopped in symptomatic anaemic HEU infants.[23] Following initial concerns regarding neural tube defects with first-trimester efavirenz use, accumulating evidence seems to suggest that efavirenz is safe in pregnancy.[24] Recently, an increased risk of neural tube defects was observed with first-trimester dolutegravir use in Botswana, the first country to roll out dolutegravir as part of the national first-line regimen.[25] Preventing peri- and post-natal HIV infection is essential, and the most effective way to achieve this is through maternal viral suppression with effective ART. However, pharmacovigilance systems are urgently needed in South Africa to understand the safety of pregnancy ARV exposure as regimens become more complex and duration of exposure is extended.[26]

HIV infection should be excluded in all HIV-exposed and -unexposed infants – regardless of the results or timing of prior testing – when there are symptoms of HIV or any severe illness including severe pneumonia, diarrhoea, tuberculosis, severe acute malnutrition or neurodevelopmental delay

Conclusion

Providing basic comprehensive child care interventions benefits all infants, both HIV-exposed and -unexposed. For HEU infants, particular attention should be given to providing optimal peri- and postnatal HIV transmission prevention interventions and conducting appropriate HIV testing. Clinicians should be aware of the consequences of ARV and HIV exposure on HEU infants. As HIV programmes become more sophisticated, there is a pressing need for the establishment of pharmacovigilance and long-term surveillance systems to ensure the use of the safest regimens for women living with HIV and their HEU children.

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Taking a clinical sexual history in men who have sex with men (MSM) and transgender people (TG) in the primary healthcare setting

O Radebe,[1] MB BCh, MD
C Arendse[1]
K Rebe,[1,2] MB ChB, FCP (SA)
H Struthers,[1,2] MSc, PhD
J A McIntyre,[1,3] MB ChB, FRCOG

[1] *Anova Health Institute, Johannesburg and Cape Town, South Africa*
[2] *Division of Infectious Diseases and HIV Medicine, Department of Medicine, University of Cape Town, South Africa*
[3] *Division of Epidemiology & Biostatistics, School of Public and Family Medicine, University of Cape Town, South Africa*

Globally, key populations (KPs) such as men who have sex with men (MSM) and transgender people (TG) experience a disproportionate HIV and sexually transmitted infection (STI) disease burden compared with the general population.[1,2] Although there are limited data on the social and cultural dynamics that influence the sexual behaviour of individuals, MSM sexual behaviour is associated with increased vulnerability to HIV and STIs.[3,4] KPs comprise a diverse patient group who present unique diagnostic and management challenges to the healthcare worker (HCW). Their specific risk factors and sexual behaviours modify how diseases present compared with the heterosexual or general population.

HCWs need to have sound knowledge of the risk factors and understand the sexual behaviour of KPs in order to provide comprehensive healthcare services.[5,6] To perform a proper health risk assessment, HCWs must first be comfortable in working with KPs and be able to create an enabling environment to facilitate healthcare delivery that is welcoming and free of stigma.[5] HCWs need to be aware of their own attitudes which could act as an impediment to the delivery of enabling care, and should improve their own ability to understand and communicate with their clients. KPs often have poor health-seeking behaviour due to homophobic attitudes they experience in healthcare institutions, or the fear of experiencing such attitudes, and often the depression

that comes with homosexuality, especially in the peri-urban areas.[7] Stigma and discrimination continue to be barriers in accessing any healthcare service, especially for MSM and TG, and other KPs such as sex workers, people who use drugs and migrants.[8]

Sexual history-taking

Taking an accurate sexual history is a tool that allows nurses and doctors working in a primary healthcare setting to be able to do a proper risk assessment for HIV, STIs and other health concerns, to facilitate diagnosis and management of these conditions in KPs. The majority of MSM may present as masculine, may be regarded as heterosexual in the community, and might even be married. They will not be identifiable as an MSM to the staff at the clinic and therefore would be considered as heterosexual.[5] This assumption is problematic and could lead to the delivery of ineffective healthcare. For example, a counsellor could spend 30 minutes educating a heterosexual man about vaginal sex and contraception when in fact he does not have sex with women. This would be a waste of time and resources, and would not lead to any health benefit for the patient. Taking a sexual history will enable the HCW to ask sensitive questions without embarrassing the male patient and use that information to tailor healthcare to their specific needs.

Key fundamentals

- The sexual history must be patient-centred and be indicated to benefit the individual.
- Culture and religious considerations must not interfere with providing healthcare services.
- There needs to be privacy and confidentiality at all times to protect the patient from homophobic or prejudicial acts.
- The health provider must be:
  - knowledgeable about a large variety of sexual behaviours
  - confident and knowledgeable in taking a sexual history.
- Avoid stereotypes, such as assuming all men have female partners and do not engage in MSM behaviour.
- Establish good rapport with the patient in order to provide an enabling platform to understanding their sexual behaviour in the context of the presenting complaint.

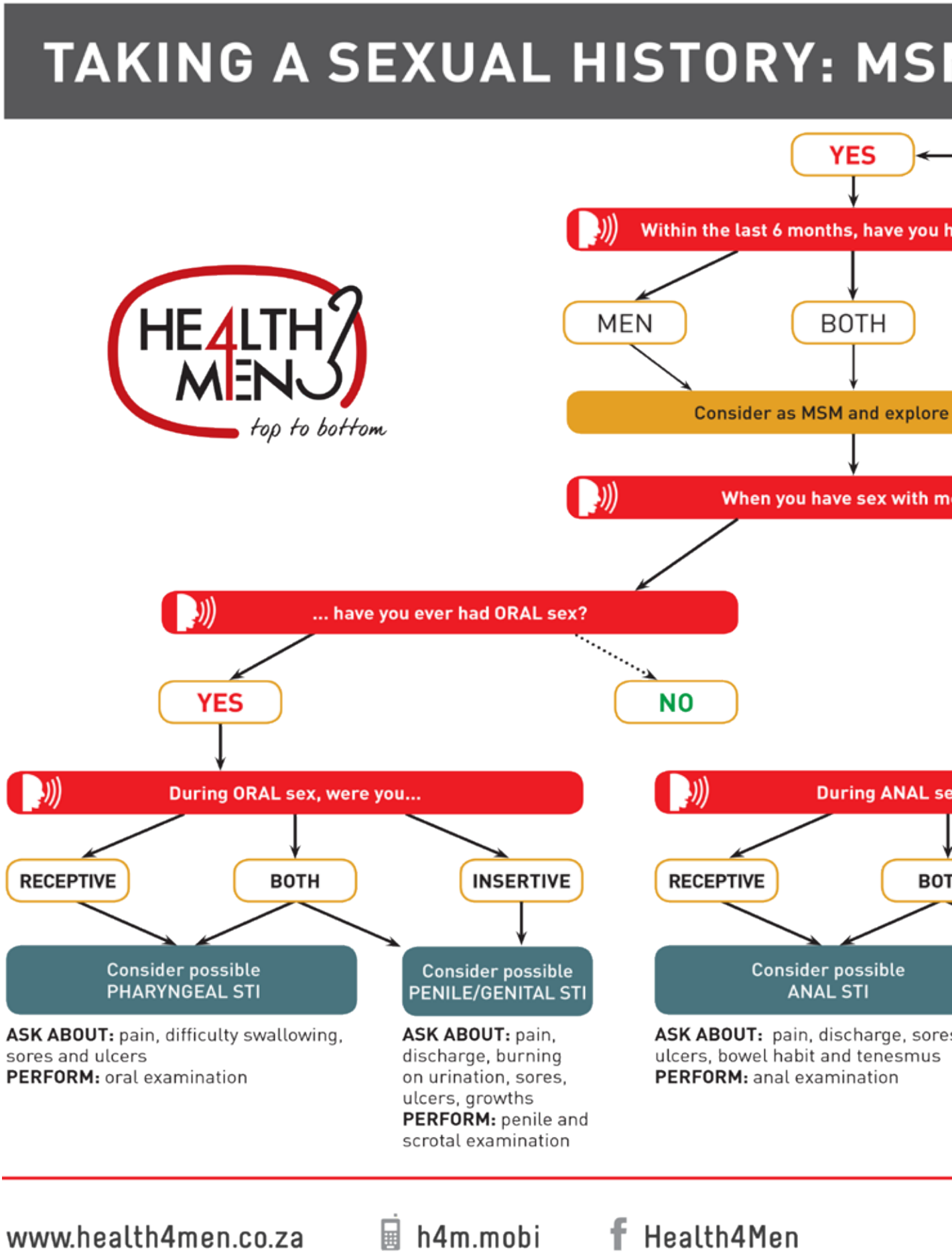
The HCW needs to establish a rapport with the patient in order to reassure them, even though some of the questions posed to them may be very sensitive. For example: '*I will be asking you very sensitive questions about your sexual behaviour, which may assist me to provide you with the best possible healthcare. You can decline to answer at any point if you feel uncomfortable about the question*'. Another example relates to trans people: it is important to ask them how they would like to be addressed during the consultation and which names and pronouns should be used. For example some transwomen may want to be addressed as 'she' although they may physically appear as male.

HCWs and key populations

It is important to establish an environment based on trust and confidentiality with MSM and TG. This facilitates easy discussions around areas of number of partner(s) and types of relationships, and types of sexual behaviours such as anal or oral sex with other men or women, to assist the HCW with risk assessment for HIV and STIs. Some patients may be in open relationships, which means they may have a main partner but have negotiated with their partner that they are allowed to see other partners outside of the primary relationship. It is difficult for some men who are married to disclose other partners with whom they may have sexual relationships. It is appropriate, for example, to ask the question: '*Over the past 6 months, have you had sex with only women, only men or both?*' It is important for the HCW to understand the relationship dynamics, for example: '*Does your partner know about other partners?*'; '*Do you use a condom every time you have sex with your main partner or other partners?*' These questions must be asked with sensitivity and without any judgment of the patient.

Note that where a male patient has engaged sexually with other men, the history needs to focus on determining risks associated with HIV and infection with other STIs, and could include details as listed in Table 1. It could be wise to use tempered probing questions that provide the patient with specific options, rather than open-ended or indirect questions. Where possible, the patient's colloquial sexual terminology should be used.

Figure 1: Is a schematic Sexual History Taking Tool



START BY:

HAVE YOU HAD SEX WITH ANYONE IN THE LAST 6 MONTHS?

NO

Explore reasons why not sexually active

ASK ABOUT:

- Stress, depression and mental health concerns
- Relationship problems
- Physical problems such as warts or hemorrhoids that may be causing psychological embarrassment
- Sexual dysfunction
- Anxiety related to HIV infection

ad sex with...

WOMEN

further

en...

... have you ever had ANAL sex?

YES

NO

x, were you...

TH

INSERTIVE

Condom use » If not, explore reasons and discuss how to improve condom use
Lubrication » If not water-based, explore reasons why not and educate

Consider possible PENILE/GENITAL STI

ASK ABOUT: pain, discharge, burning on urination, sores, ulcers, growths
PERFORM: penile and scrotal examination

Sexually Transmitted Infections

- **Have you previously been diagnosed with any STIs and what were the symptoms?**
- **What treatment did you receive?**
- **Did you complete the treatment course?**
- **Was your partner notified, screened and/or treated?**

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Table 1: Assessment of MSM sexual risk for HIV and other STI infections

Information regarding	Risk factors could include
Oral stimulation	Kissing or analingus
Penetration	Oral or anal, penetrative or receptive or both
Condom usage	No condom, used every time, correct condom usage or condom breakage
Lubricant usage	Not using appropriate condom-compatible lubricant, or using lubricant substitutes such as saliva or oils
Ejaculation	Intra-oral, intra-anal, intra-ocular or on broken skin

It is important to note that the sexual history-taking is based on assessment of the risk of HIV and STIs in an individual. It will assist any HCW with accurately assessing risk, performing a diagnosis and formulating a management plan as illustrated in the schematic of the sexual history-taking tool in Fig. 1.

Conclusion

Sexual history-taking is a powerful tool to enable any HCW to have a comprehensive approach to risk assessment in KPs in a primary healthcare setting. This tool requires practise to use effectively, but can be implemented by any HCW in a range of health settings where KPs are provided with health services to address their high risk of HIV acquisition and STIs.

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NATIONAL HIV & TB HEALTH CARE WORKER HOTLINE

	0800 212 506 or **021 406 6782**		**pha-mic@uct.ac.za** E-MAIL
	071 840 1572 SMS/PLEASE CALL ME		**www.mic.uct.ac.za** WEBSITE

What questions can you ask?

The toll-free national HIV & TB health care worker hotline provides information on queries relating to:

- Pre-exposure prophylaxis (PrEP)
- Post exposure prophylaxis (PEP)
- HIV testing
- Management of HIV in pregnancy & PMTCT
- Drug interactions
- Treatment/prophylaxis of opportunistic infections
- Drug availability
- Adherence support
- Management of tuberculosis
- Antiretroviral Therapy (ART)
  - ~ When to initiate
  - ~ Treatment selection
  - ~ Recommendations for laboratory and clinical monitoring
  - ~ How to interpret and respond to laboratory results
  - ~ Management of adverse events

Who answers the questions?

The centre is staffed by specially-trained pharmacists who share 50 years of drug information experience between them. They have direct access to the latest information databases, reference sources and a team of clinical consultants.

When is this free service available?

The hotline operates from Mondays to Fridays 8:30am - 4:40pm.

SA HIV/TB HOTLINE

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ANDROID APP ON Google play

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TB DRUG INFORMATION MONOGRAPHS
POSTER GUIDELINES
EDL-ANTIRETROVIRAL INTERACTIONS TABLE

MEDICINES INFORMATION CENTRE

Western Cape Government Health

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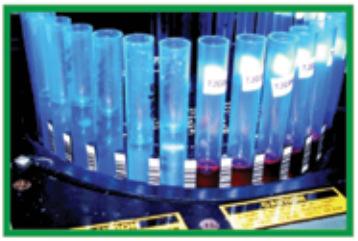
Call us - we will gladly assist you! This service is free

NATIONAL HEALTH
LABORATORY SERVICE

RESULTS HOTLINE

0860 RESULT 737858

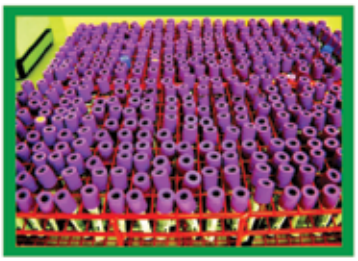
This line is dedicated to providing results nationally for HIV Viral Load, HIV DNA PCR and CD4 to Doctors and Medical Practitioners, improving efficiency in implementing ARV Treatment to HIV infected people. This service is currently available to members of Health Professionals Council of the South Africa and the South African Nursing Council. The hotline is available during office hours from 8am to 5pm Monday to Friday.



Register to use the RESULT HOTLINE

Follow this simple Step-by-step registration process

Dial the HOTLINE number 0860 RESULT (737858)
Follow the voice prompts and select option 1 to register to use the hotline
A hotline registration form will be sent to you by fax or e-mail.
Complete the form and return it by fax or e-mail to the hotline to complete your registration process.
Once you are registered, you will be contacted with your unique number. This number is a security measure to ensure that the results are provided to an authorized user.



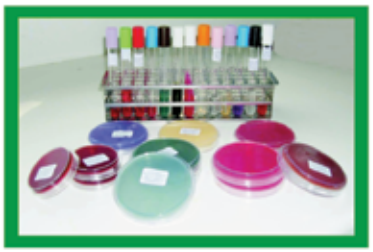
To use the hotline dial 0860 RESULT (737858)

Select option 2 to access laboratory results.

- ☐ You will be asked for your HPCSA or SANC number by the operator.
- ☐ You will be asked for your Unique Number.
- ☐ Please quote the CCMT ARV request form tracking number (bar coded) and confirm that the result requested is for the correct patient.

Should the results not be available when you call, you will be provided with a query reference number which must be used when you follow up at a later date to obtain the result.

Once you have a Reference number



Select option 3 to follow up on a reference number
Should the requested results not be available, a query reference number will be provided to you.
A hotline operator will call you within 48 hours of receiving the laboratory results.

Registering for this service from the NHLS, will assit in improving efficiency, providing improved patient care and streamlining clinic processes. Call now and register to access results for HIV Viral Load, HIV DNA PCR and CD4.

Quiz questions for August 2018

1. HIV self-screening (select the answer that is TRUE):
   A. Can help address the second 90 in the 90-90-90 targets
   B. Provides a definitive HIV-positive diagnosis
   C. Is intended to replace other testing modalities
   D. Can help increase access to hard-to-reach groups.

2. The OraQuick self-test (select the answer that is TRUE):
   A. Tests the saliva
   B. Detects HIV viral copies
   C. Has an accuracy of 90% compared to routinely used rapid tests
   D. Results are available in 10 minutes.

3. As part of the fundamentals of taking a clinical assessment: (select the answer that is FALSE):
   A. It is not necessary to undertake a clinical assessment in patients on ART at every visit
   B. A part of the assessment involves deciding whether a patient may be suitable for prophylactic treatment, such as co-trimoxazole
   C. The objective assessment includes the physical examination, bedside investigations and laboratory tests
   D. Asking about symptoms of sexually transmitted infections is a part of the subjective assessment

4. HIV-positive children who have not yet been treated with ART, and who have not been exposed to PMTCT often have very high viral loads (VLs).
   A. TRUE
   B. FALSE

5. When monitoring VL in children (select the answer that is TRUE):
   A. A baseline VL should be done upon initiation of ART in children
   B. The VL test can be used to determine which children require ART initiation
   C. If a VL test can not be done before starting treatment, it is best to delay ART initiation and wait until a VL test can be done
   D. If the VL in a child comes back as 'undetectable' it means that the child has been cured of HIV.

6. Which statement is FALSE?
   A. It is important to ask transgender people how they would like to be addressed
   B. Culture and religious considerations should interfere with providing healthcare
   C. Healthcare workers should improve their ability to understand and communicate with their patients
   D. Key populations often have poor health seeking behaviour due to the homophobic attitudes they experience in healthcare institutions.

7. Stigma and discrimination continue to be barriers in accessing any healthcare service, especially for transgender people and men who have sex with men.
   A. TRUE
   B. FALSE.

8. Limited access to healthcare, poor levels of education, and poverty are some of the reasons as to why many in South Africa are still living with HIV without treatment.
   A. TRUE
   B. FALSE.

9. HIV-exposed but -uninfected (HEU) infants (select the answer that is FALSE):
   A. Should receive 6 months of exclusive breastfeeding
   B. Appear to have worse neurodevelopmental outcomes than HIV-unexposed infants
   C. Do not require routine vitamin A supplementation
   D. Are at higher risk of having severe pneumonia compared to HIV-unexposed infants.

10. Prolonged long-term cotrimoxazole prophylaxis is recommended in HEU infants.
    A. TRUE
    B. FALSE.

Quiz answers from the December 2017 issue

1. **B**
2. **B**
3. **D**
4. **A**
5. **C**
6. **D**
7. **A**
8. **C**
9. **A**
10. **D**

NDoH/SANAC Nerve Centre Hotlines

Any HCT concerns from facility and district managers should be reported to the NDoH/SANAC

Nerve Centre Hotline and specific emails for each province:

- **Western Cape:** 012-395 9081 sanacwesterncape@gmail.com
- **Northern Cape:** 012-395 9090 sanacnortherncape@gmail.com
- **Eastern Cape:** 012-395 9079 sanaceasterncape@gmail.com
- **KZN:** 012-395 9089 sanackzn@gmail.com
- **Free State:** 012-395 9079 sanacfreestate@gmail.com
- **Mpumalanga:** 012-395 9087 sanacmpumalanga@gmail.com
- **Gauteng:** 012-395 9078 sanacgauteng@gmail.com
- **Limpopo:** 012-395 9090 sanaclimpopo@gmail.com
- **North West:** 012-395 9088 sanacnorthwest@gmail.com

AIDS Helpline 0800 012 322

The National Toll-free AIDS Helpline was initiated in 1991 by the then National Department of Health's (NDoH's) 'HIV/AIDS, STDs and TB Directorate'. The objective of the Line is to provide a national, anonymous, confidential and accessible information, counselling and referral telephone service for those infected and affected by HIV and AIDS, in South Africa.

In 1992, LifeLine was requested by NDoH, to take over the management of the Line by rotating it between the 32 existing community-based LifeLine Centres, and manning it with volunteer counsellors. In 2000, in response to an increasing call rate, a centralised Counselling Centre was established in Braamfontein, Johannesburg, to house the AIDS Helpline.

The AIDS Helpline a national toll-free service, operates on a 24/7 basis and is utilised by people from all walks of life in urban and rural areas, in all 11 languages at no cost from a landline telephone.

Annually, the Line provides anonymous, confidential and accessible telephonic information, counselling and referrals to over 300 000 callers.

The AIDS Helpline plays a central role in providing a deeper preventive and more supportive service to those infected and affected by HIV/AIDS, but also serving as an entry point in terms of accessing services from government, private sector and other NGOs/CBOs.

Cases presented range from testing, treatment, transmission, TB, medical male circumcision, etc.

The AIDS Helpline incorporates the Treatment Line. The treatment support services were included to complement the services provided by lay counsellors on the line. The Treatment Line is manned by nurses who provide quality, accurate, and anonymous telephone information and/or education on antiretroviral, TB and STI treatment.

2018 MEMBERSHIP APPLICATION FORM

PROFESSIONAL INFORMATION

Title: ☐ Prof ☐ Dr ☐ Mr ☐ Mrs ☐ Ms **Initials:** _____ **First Name(s):** _____

Surname: _____ **Institution/Organisation:** _____

Profession (check one):

☐ Doctor Generalist ☐ Doctor Specialist ☐ Pharmacist ☐ Professional Nurse ☐ Other: _____

If Doctor Specialist, select speciality:

☐ Cardiology ☐ Clinical Pharmacology ☐ Dermatology ☐ Family Physician ☐ Infectious Diseases ☐ OB GYN ☐ Paediatrics

☐ Physician / Internal Medicine ☐ Psychiatry ☐ Other: _____

Council number (e.g. HPCSA, SANC): _____ **Practice number** (if applicable): _____

Primary Employment affiliation (please chose one):

☐ Clinic ☐ Government (non-clinical) ☐ Hospital ☐ Industry ☐ Non-governmental Organisation (NGO) ☐ Private Practice

☐ Student ☐ University ☐ Other

Professional Activities (write '1' for primary and '2' for secondary):

☐ Administration ☐ Advocacy ☐ Patient care ☐ Programme Management ☐ Research ☐ Sales/Marketing

☐ Teaching/Education ☐ Other

Please enter the year you began treating HIV patients: _____

Please indicate if you have passed a postgraduate diploma on the clinical management of HIV from one of the following institutions:

☐ Colleges of Medicine of South Africa Year completed: _____

☐ University of KwaZulu Natal Year completed: _____

☐ Other: _____ Year completed: _____

Professional Associations: ☐ SAMA ☐ IAS ☐ FIDSSA ☐ Other: _____

CONTACT INFORMATION

Postal Address: _____

_____ **Suburb/Town:** _____ **Postal Code:** _____

Province: _____ **Country:** _____

Telephone: _____ **Mobile:** _____

Fax: _____ **Email:** _____

DEMOGRAPHIC INFORMATION

Race/ethnicity: ☐ Black ☐ Coloured ☐ Indian ☐ White ☐ Other: _____

Gender: ☐ Female ☐ Male ☐ Intersex/Transgender **Date of Birth:** ☐☐/☐☐/☐☐☐☐

MEMBERSHIP PREFERENCES

Would you like to receive a posted copy of the Society's magazine for nurses, *HIV Nursing Matters?* (Copies are available free on the Society's website: www.sahivsoc.org) ☐ Yes ☐ No

Would you like to participate in the Society's online membership directory? (Your contact information will be available only to other Society members through the members portal on the Society's website) ☐ Yes ☐ No

How would you like to receive communications from the Society (check all that apply): ☐ SMS ☐ Email

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- **Organisation (NGO) Package** **R3500 per annum**
  for 10 staff memberships or R6000 per annum for 20 staff memberships

Signed: _____

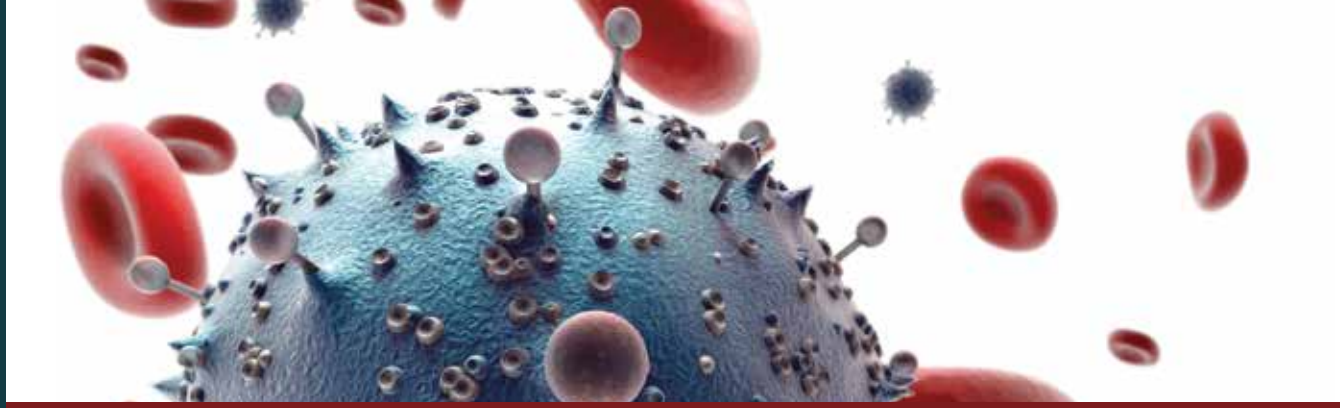
Date: _____

☐ I hereby agree to support the values and mission of the Society; and agree to the membership code of conduct

Method of payment: ☐ Electronic Transfer ☐ Direct Deposit ☐ Post/Cheque ☐ Cash Payment Date: ☐☐/☐☐/☐☐☐☐

Fees are now charged for a calendar year or pro rata according to the date of application. Payments may be made by cheque or electronic transfer payable to: Southern African HIV Clinicians Society, Nedbank Campus Square, Branch Code 158-105, Account No: 1581 048 033. For alternative online payment please go to **http://sahivsoc.org/about/membership-application** and click the "**Pay Now**" button. Please reference your surname and/or membership number on the payment. Please fax or email proof of payment to 011 728 1251 or admin@sahivsoc.org or post to: Suite 233, Post Net Killarney, Private Bag x2600, Houghton 2041.

HAVE QUESTIONS? Please contact us: 011 728 7365 / admin@sahivsoc.org / www.sahivsoc.org



UNITING NURSES IN HIV CLINICAL EXCELLENCE, BECOME A MEMBER.




Who are we?

We are a member-based Society that promotes quality, comprehensive, evidence-based HIV health care, by:

1. **LEADING • PIONEERING**
   We are a powerful, independent voice within Southern Africa with key representation from the most experienced and respected professionals working in the fight against HIV.

2. **CONNECTING • CONVENING • ENGAGING**
   Through our network of HIV practitioners, we provide a platform for engagement and facilitate learning, camaraderie and clinical consensus.

3. **ADVOCATING • INFLUENCING • SHAPING**
   With our wealth and depth of clinical expertise, we can help health care workers take their practice to a new level. We are constantly improving and expanding our knowledge, and advocating for clinical and scientific best practice.

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- E-learning through CPD-accredited clinical case studies and online discussion group forums
- Free tri-annual subscription to *HIV Nursing Matters*
- Weekly SMS clinical tips for nurse members
- Free CPD-accredited continuing education sessions
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SOCIETY CONTACT DETAILS:

Tel: +27 11 728 7365 • **Fax:** +27 11 728 1251
Email: sahivsoc@sahivsoc.org

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