HIV NURSING MATTERS

A publication of the Southern African HIV Clinicians Society

Protecting healthcare workers during the COVID-19 pandemic

Gender-affirming healthcare: Our ethical response

Challenges faced by trans and gender-diverse people in accessing public healthcare

Harm reduction for people who use drugs in Southern Africa

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HIV Nursing Matters focuses on health system challenges

Guest editorial

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The penning of this edition of *HIV Nursing Matters,* themed 'health system challenges', could not have come at a more appropriate time, when the entire world is battling the COVID-19 pandemic attributed to SARS-CoV-2.

The Southern African HIV Clinicians Society (SAHCS) is making a substantial contribution towards the fight against COVID-19 in South Africa through its recently launched PPE Shortages and Stockouts Project. This project has had a significant impact in healthcare settings, including in the practices of general practitioners, clinics, care homes and dentists, as well as in police stations and schools. Detailed insight on this wonderful initiative is provided on page 4 of this edition.

Aside from COVID-19, the healthcare system in South Africa has other unique challenges which still require attention, with serious negative consequences if they are ignored. Some of these challenges include transphobia in healthcare settings, adequate HIV care provision, harm reduction for substance and drug use, as well as poor general access to care. Transphobia has a severe impact on healthcare access for trans and gender-diverse (TGD) people in our communities. A lack of exposure of healthcare workers to appropriate training in gender-affirming healthcare leads to the stigmatisation, social exclusion, victimisation, harassment and discrimination of TGD people, which can further progress to chronic mental health problems. Two articles on pages 8 and 10, respectively, explore contextual gender-affirming healthcare system services, illuminating the various forms in which transphobia manifests in healthcare settings, with possible solutions on what healthcare workers can do to ensure sensitisation towards this matter.

Such capacitation of healthcare workers is of critical importance and should be ongoing irrespective whether it addresses the usual challenges, such as the provision of HIV and TB care, or lesser-amplified issues such as drug use, as discussed on page 14 where an interesting view on the topic is brought to the fore.

In relation to HIV care, conscientious capacity-building through training can never be overemphasised, since South Africa has the largest ART rollout programme in the world which is entrenched on the nursing personnel on the frontline. Their need for various, innovative capacity-building programmes is discussed on page 18.

Given the many challenges currently experienced by various stakeholders in the healthcare system, it is encouraging to learn that there are alternative and innovative models of healthcare delivery available, and which are significantly impacting the healthcare outcomes of the various communities they serve. The Quadcare model is featured on page 20 as an effective, responsive healthcare delivery approach that addresses all aspects of health needs, through the availability of multiple, clinically trained and experienced members of the multidisciplinary team.

Regardless of the current challenges, the patient advocacy role should always be the driving force behind every healthcare worker's actions. This will ultimately help to overcome certain challenges, as an enthusiastic and willing heart makes things happen.

'*It's one small step for man, one giant leap for mankind*,' articulated Neil Armstrong. No matter how small your action is today, the entire healthcare system depends on it.

Enjoy the publication. It has been a great pleasure to serve as guest editor for this edition.

HIV NURSING MATTERS

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Message from the president

Prof. Yunus Moosa
President: Southern African HIV Clinicians Society

We are very excited to offer another edition of *HIV Nursing Matters,* appropriately themed 'health system challenges'. Everyone should be aware that our healthcare system has been under tremendous pressure with the COVID-19 pandemic. The burden of this pandemic adds to an already strained healthcare system. This edition not only uncovers specific challenges experienced by some disenfranchised, marginalised and stigmatised segments of our population, but also provides innovative ways of improving service delivery.

Adequate provision of an uninterrupted supply of reliable personal protective equipment (PPE) to front-line health workers during the COVID-19 pandemic has received much public attention. In their article 'Nurses matter: Protecting healthcare workers during the COVID-19 pandemic', van Schoor and Ndimande provide a concise review of the transmission dynamics and infection prevention and control (IPC) measures required to contain the spread of SARS-CoV2. In addition they offer much needed guidance on the extended use and reuse of PPE.

Two articles draw our attention to the challenges faced by the trans and gender-diverse (TGD) population. McLachlan, in the article 'Gender-affirming healthcare: Our ethical response', highlights the deleterious psychological impact this population faces from an unsympathetic and insensitive healthcare service. Luvuno, in the article 'Challenges faced by trans and gender-diverse people in accessing public sector healthcare services', brings to life the experiences of TGD people in navigating an unforgiving healthcare system. We, as healthcare workers, need to introspect on how we can fix our attitude towards these patients and thereby lessen their burden.

In the article 'Harm reduction for people who use drugs in Southern Africa', Scheibe highlights the deleterious impact our current approach to people afflicted with this disease is having. The author makes a compelling argument for a paradigm shift in policy – something we should all actively be lobbying towards.

In a crisis, it is critical for all role players to pull their weight. An insightful article, 'Can the nursing profession contribute to realising the treatment and prevention targets of the *HIV, TB and STIs National Strategic Plan 2017 – 2022*', authored by the Director General of the National Department of Health, clearly recognises the critical role played by nurses within the healthcare system. An appeal is made for nursing education to keep pace with the rapidly evolving science so that this most valuable cadre of healthcare workers remains adequately equipped to manage foreseeable challenges.

Health system challenges require forward thinking and novel approaches by courageous entrepreneurs. Dr Rakumakoe is certainly one of those rare gems. In the article 'Improving access to private healthcare in South Africa: The Quadcare model and community healthcare services', Rakumakoe exposes major limitations in our current healthcare system, that puts it out of reach for much of our population. The articles describes a ground-breaking approach to healthcare that should give many of us pause to consider.

This issue of *HIV Nursing Matters* not only highlights challenges faced by the healthcare system but also provides novel and innovative insights into dealing with many of the challenges. Happy reading.

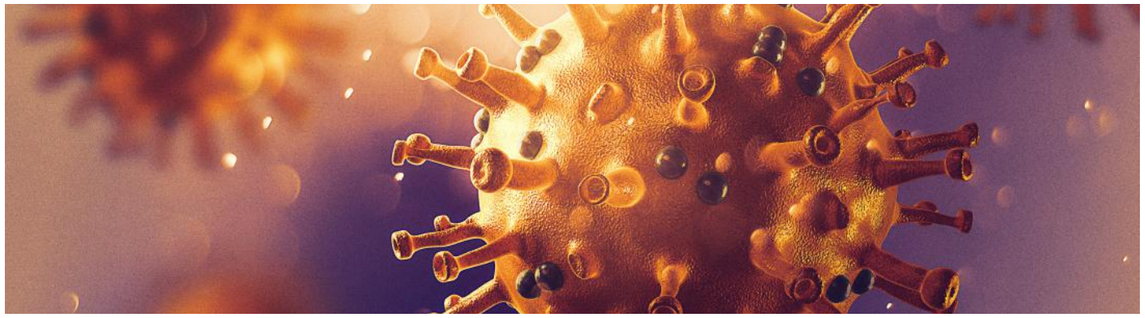
Nurses matter: Protecting healthcare workers during the COVID-19 pandemic

Vanessa van Schoor, **Yolanda Ndimande**
Healthcare Worker PPE Shortages & Stockouts Support Project,
Southern African HIV Clinicians Society, Johannesburg, South Africa

'We all feel the stress on our body and minds. Tired after just an 8-hour shift ... and we are used to working longer hours. I think emotionally it is starting to take its toll. It is difficult to get PPE and the courier costs are killing us. I even took out an additional loan on my house just to cover the extra PPE and medication ... I am a proud person who does not necessarily ask for help, but if I carry on with my service of seeing 100–120 patients a day, then I'm not going to survive.'

When COVID-19 was first diagnosed in South African in early March 2020, everyone struggled to cope with what was here and what was still to come. By June there were 1 700 healthcare workers who had tested positive for COVID-19 in the country; by July that number was 3 000, and the latest data published by the Ministry of Health on 11 September 2020 put this number at 32 429 healthcare workers, with nurses accounting for more than half the cases. Obtaining quality, affordable personal protective equipment (PPE) has been one of the greatest challenges for South Africa during these challenging times.

The Southern African HIV Clinicians Society (SAHCS) office phones started ringing and emails poured in as the first COVID-19 cases were reported. Members and individuals from the public and private sectors contacted us for PPE information and support. In response, SAHCS launched the PPE Shortages and Stockouts Project to track and escalate these requests. A team at Rysis Software helped establish a website to collect detailed information on PPE needs so that the SAHCS could collate and share this information with key stakeholders to seek solutions. This was much more difficult and took far more time than anticipated.



...the families are bringing the dead in their cars and want us to see them first before they go to the mortuary...it is just the need of the families for a professional person to say, "Yes, you are right, they are dead. It is heart breaking.

We are mainly a private clinic, but we also provide family planning, baby immunizations, anti-natal care, HIV and sexual support during the stage 5 lockdown. We are the only private clinic in town that is still open. We have gone through the process of cordoning off and we screen everybody at our door for temperature and hand sanitizer. All linen is removed, and beds are cleaned after each patient. I set up a tent for the patients with fever and the others I see in the clinic, just to keep the clinic safe. We usually see 100-120 patients per day but now only 20-50 at stage 3 lockdown. We are 5 primary midwifery sisters and 4 admin staff.

We cannot get N95 or 3-layer masks at our current suppliers. We are paying R150 for an N95 mask, we cannot carry on with prices being so high.

COVID-19 spreads quickly. Transmission is mainly through airborne droplets from an infected person breathing, coughing or sneezing and then a close contact inhaling these virus-laden droplets. The incubation period for COVID-19 from exposure to symptom onset is 5–6 days but can be as long as 14 days. According to the latest information, COVID-19 can spread for up to 2 days prior to symptom onset or by people who are asymptomatic, for 7–12 days by people with moderate infections, and up to 2 weeks by people with severe symptoms. One in five people require hospitalisation, so making PPE available to healthcare workers has been a top priority.

SAHCS has worked through various channels to find and offer support for healthcare workers, from general practitioners, dentists, nurses and physiotherapists, to those working in hospitals and clinics, care homes, police stations and schools. As far as possible, SAHCS found and shared links to the few suppliers who could provide quality, affordable equipment at the quantities requested.

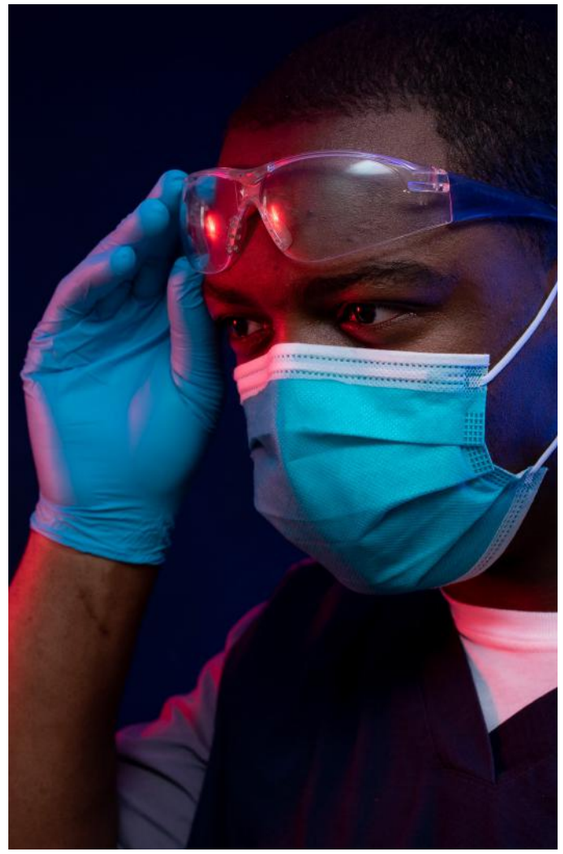
In parallel, SAHCS worked with the South African Society of Anesthesiologists (SASA), the National Department of Health (NDOH) Occupational Health & Safety (OHS) Quality Assurance Committee, SAHPRA (South African Health Products Regulatory Authority) and the NRCS (National Regulator for Compulsory Specifications of South Africa) to help develop regulations that will extend far beyond the COVID-19 response to establish a policy for the regulation of quality respiratory protective equipment (RPE) for the private and public sectors. This document sets standards for procurement and testing for all respirators and masks supplied to healthcare workers working in high-risk situations, enabling them to check the quality of what is supplied. It also requires distributors to do regular quality testing and to replace sub-standard equipment.

Special precautions must be taken by healthcare workers who are in direct contact with patients who may have COVID-19. PPE use can be broken down into three different levels of patient care:

1) Aerosol-generating procedures in COVID-19 high-risk areas
- Mask: N95 or equivalent
- Visor or goggles
- Apron or gown: fluid-resistant
- Gloves: non-sterile

2) High-risk areas with confirmed COVID-19 patients
- Mask: surgical
- Visor or goggles
- Apron: plastic
- Gloves: non-sterile

3) Low-risk COVID-19 areas
- Mask: surgical mask in clinical areas; cloth mask in non-clinical areas



Can PPE be reused?

Usually PPE is discarded after a single patient or procedure, but with an acute shortage of PPE, the WHO and CDC considered extended use and/or reuse of certain items. SAHPRA supports the extended use of respirators for a maximum of 6–8 hours (as specified by the individual manufacturer).

Source: South African National Department of Health IPC Guidelines

N95 or not

Before COVID-19, few people had ever heard of an N95 mask – only people working in the mines or with TB patients. With the onset of COVID-19, sales of N95 masks became a burgeoning industry, with masks flooding in from all over the world, including an incredible number of fake N95 masks. Millions of donated masks had to be 're-purposed' as medical staff were not safe from inhaling the virus. At the time of writing, at least three South African companies have developed the capacity to produce an equivalent mask and the new regulation will require that all surgical masks and respirators may only be manufactured, imported, exported, distributed or wholesaled by establishments holding a valid medical device establishment license from SAHPRA and with NRCS pre-approval.

How to check N95 quality

- A genuine N95 respirator filters out >94% of particles larger than 0.3 microns. The equivalents are:
  - South Africa: SANS1866-2:2018, SANS50149:2003, SANS50143:2003, SANS10338:2009, SANS10220:2010, SANS50136:1998 (N94)
  - Australian standards: AS/NZS1716:2012 and AS/NZS1715:2009 (P2)
  - European Union Standards: EN149-2001 and EN529:529:2005 (FFP2/3)
  - United States: NIOSH Approval 42CFR84 and OSHA29CFR1910.134
  - China: Standard effective 01-07-2020: GB 2626-2019 and GB19083:2010 (KN95)
- The box should not be damaged, should carry the manufacturer's details, and note a batch/lot number
- Respirators manufactured locally will be labelled as FFP2 or FFP3 standard and should meet SANS 1866-2:2018 including total inward leakage standard compliance and/or SANS 50149 as a minimum
- All must have good breathability and a design that does not collapse against the mouth with qualitative or quantitative fit testing carried out at least once a year for each healthcare worker for each brand or type of particulate respirator provided
- No ear loops, as these compromise protection due not sealing the face and risking leaking at the sides, chin or nose
- If performing aerosol-generating procedures (e.g. sample collection) on several COVID-19 patients sequentially, then the same N95 respirator and eye protection can be used throughout the session, but the apron and gloves need to be changed between patients
- The outside surface of the N95 respirator may become heavily contaminated with virus during aerosol-producing procedures, so take great care not to touch the outside surface and clean hands thoroughly after mask removal
- Respirators with an exhalation valve are not recommended for source control, as they allow unfiltered exhaled breath to escape.

Surgical masks

Surgical or medical masks are deemed sufficient for working in most medical and outreach settings. They need to be of a three-ply material and fit snuggly around and fully cover the mouth and nose. Patients with COVID-19 symptoms should also wear a mask. To check for quality, look for a Quality Certificate indicating compliance with SANS1866-1:2018 or SANS1866:2008:

- Particulate filter penetration (PFP) minimum NaCl filtration 26% (paraffin oil and latex where possible)
- Determination of breathability (differential pressure)
- Water adsorption rate (fluid permeability/imperviousness) minimum 120 mmHg pressure
- Flammability testing
- Good breathability, internal and external sides clearly identified, structured design that does not collapse against the mouth.

Gowns/Aprons

- Cotton gowns and aprons should be changed when they become wet or contaminated, and then they can be washed to use again
- Plastic aprons are single-use, fluid resistant, mid-calf length to cover the top of the boots
- Gowns ideally have thumb/finger loops or elastic cuffs to anchor sleeves in place
  - Option 1: Fluid penetration-resistant: EN 13795 high performance, or AAMI PB70 level 3 performance or above, or equivalent
  - Option 2: Blood-borne pathogens penetration-resistant: AAMI PB70 level 4 performance, or (EN 14126-B) and partial body protection (EN 13034 or EN 14605), or equivalent
- Ideally of light colors to better detect contamination.

Hands

Good hand hygiene is essential as COVID-19 can be spread by touching the eyes, nose or mouth. Both soap and hand sanitiser work well to destroy the virus.

- Wash hands with soap and water for at least 20 seconds
- Use an alcohol-based hand rub if hands are not visibly dirty; hand sanitiser gels need to contain 75% isopropanol or 80% ethanol to be effective – this breaks down over time, so check production and expiry dates
- Gloves – take care to wash or sanitise before putting on or removing gloves.

How long will this outbreak last?

Epidemiologists say, 'If you've seen one pandemic, you've seen one pandemic.' This is a new virus, so while the genetic code was determined quickly, scientists and medical professionals are still working out how to treat serious cases and running various vaccine trials to be able to prevent transmission. For the 31 million+ people who have contracted and survived COVID-19, no one is sure how long immunity will last. Researchers at King's College in London from March to June this year repeatedly tested 90 people with COVID-19 and found that by 2 months many of their antibodies (B-cells that intercept and bind to invading molecules) had disappeared. The study did not account for the T-cells which seek and destroy infected cells, so further research is needed and several vaccine trials are underway.

Why does transmission appear to be slower in Africa? Why do some younger people develop a hyper-immune response? Is HIV status relevant? Who will have not only their lungs, but major organs or their central nervous system affected by the virus? It is the unknowns that are most frightening. There are at least 320 000 viruses known to infect mammals alone and the pathogens rarely stick to one species. Most pandemics affecting humans have come from 'zoonoses' or pathogens coming from animals, and with the rapid environmental changes currently underway, scientists say, humans have created opportunities for viruses to evolve, while increased travel aids rapid dispersion around the globe.

Despite launching a rapid early response, staff in South African hospitals and clinics found themselves without enough PPE. The international demand for masks, gowns and ventilators outstripped supply. Many facilities and practices struggled with high costs. It has taken time for local manufacturers to produce PPE that consistently meets strict industry standards and where the supply of raw materials can be sustained. If we can get this right, we can support nurses across South Africa, and maybe across the continent.

SAHCS will continue advocating for the identification of suppliers who can deliver the quality certified PPE at affordable prices. We will continue linking healthcare workers to guidelines, online trainings and updated information. This has been one of the biggest challenges ever faced by our health system, and we are in it with you for the long haul.

Shortages or stockouts can be reported as follows: www.COVID19PPEshortages.co.za or contact our staff on yolanda@sahivcs.org or 011 728 7365.

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Gender-affirming healthcare: Our ethical response

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In South Africa access to gender-affirming healthcare has been increasing over the last ten years. Trans and gender-diverse (TGD) people are accessing affirmative psychotherapy, speech therapy, hormone replacement therapy and gender-affirming surgery. But, the majority of TGD people experience challenges as they try to access gender-affirming healthcare.

Research has indicated that most TGD people, who are unable to access gender-affirming healthcare, experience higher levels of gender dysphoria, depression, anxiety and suicidality.[1] Furthermore, for many TGD people to live authentically it becomes a necessity to transition in order for their body to present and reflect their gender identity.[2] This inability to access this very important healthcare increases the mental health risks and challenges that this marginalised population faces.[1]

Trans and gender-diverse people's mental health challenges

TGD people have often been diagnosed with gender identity disorder[3] and/or gender dysphoria.[4] 'Gender dysphoria refers to discomfort or distress that is caused by a discrepancy between a person's gender identity and that person's sex assigned at birth and the associated gender role and/or primary and secondary sex characteristics'.[5]

A gender identity that is incongruent with a person's assigned sex at birth is not a mental illness. Using a mental illness/psychopathology diagnosis can lead to further stigmatisation of the TGD person.[6] Pathologisation also creates the perception that a variation in gender expression, gender role and gender identity is an illness and should be seen as abnormal.

The *International Classification of Diseases and Related Health Problems* 10th revision (ICD-10) led to the depathologisation of trans and gender diversity by the World Health Organization. Trans and gender diversity now falls under a new chapter namely, 'Conditions Related to Sexual Health' and classified as gender incongruence.[7] This enables a TGD person to access gender-affirming healthcare, if they so wish.

For many TGD people, identifying as transgender can be self-affirming and inherently healthy.[8] It enables the person to live authentically which again has a positive impact on their mental health and well-being. The challenge that often arises is that the community and society as a whole do not accept people who have gender incongruence.

Minority stress has a significant impact on South African TGD people. The minority stress model indicates that harassment, social exclusion, stigmatisation, victimisation and discrimination have an impact on the mental health and stress levels of minority groups.[9] The mental health consequence of minority stress is worsened by the intersection of multiple oppressed identities, less privilege and restricted access to resources.[10, 11] Being invalidated, for example by the misuse of pronouns, further elevates the stress that the TGD person may experience. Many TGD people are also marginalised, rejected and become isolated, which further affects their stress levels and mental health. In order to cope with minority stress, some TGD people self-medicate with alcohol and substances.[12, 13]

TGD people can also present with depression, anxiety and other mental health challenges. High rates of suicidality have also been reported, especially in TGD people who are unable to access gender-affirming healthcare and psychological support.[1, 2] In South Africa gender-affirming treatment is not readily available and TGD people need to overcome various challenges.

Challenges accessing healthcare

Healthcare and mental healthcare providers are mostly not trained in gender-affirming healthcare.[14] This leads to challenges for TGD people wanting to access treatment. Often when they approach the healthcare provider, they find that the person questions them, at times ignores them or even stigmatises and victimises them.[15]

Furthermore, due to societal inequalities, most TGD people cannot afford treatment,[2] and even if the person is on medical aid, most medical aids will not cover gender-affirming healthcare.[1] In South Africa, people from more rural areas are unable to access gender-affirming healthcare at their nearest clinic, and in some provinces, treatment is unavailable.

Regrettably, a mental illness or psychopathology diagnosis is often required in order to access gender-affirming healthcare.[2] Although the informed consent model is being adopted by many psychologists and clinicians, there are still healthcare providers who are incorporating a more paternalistic medical model and/or actively gatekeeping access to healthcare.[16]

South Africa also subscribes to the Western binary concept of gender.[2] Gender is seen as either being man or woman, masculine or feminine. A person who falls outside this binary concept – e.g. a person that is gender-queer or agender – struggles to access masculinising or feminising hormonal treatment.

Due to previous transphobic experiences in the healthcare system, many TGD people fear approaching healthcare providers for gender-affirming healthcare.[10] This often leads to self-medicating, risky behaviours and mental healthcare challenges.

An ethical response

Affirmative practice is key when working in the field of gender-affirming healthcare.[11] By affirming a person's gender identity, the TGD client is respected and recognised for the person they are. A person is also seen as the expert of their own life and their experience of self is validated.

Research has indicated that TGD people experience fewer mental health challenges when they are able to access gender-affirming treatment.[17] Benevolence and non-malevolence are two of the core principles that healthcare providers uphold.[16] Withholding healthcare could lead to heightened gender dysphoria, depression and suicide[1] and does not support these previously mentioned ethical principles.

By using a participatory approach, the healthcare workers and the trans community can become part of the team that initiates and upholds trans-affirming healthcare.[2] Through an informed consent approach, the TGD person can make decisions pertaining to their body and medical transitioning.[11]

It is healthcare educators' ethical duty to include gender-affirming healthcare in training curricula.[14] Not only will this enable healthcare professionals to assist TGD people but also to prevent harm to their patients/clients.[14]

As healthcare providers we are called to serve our communities. For far too long we have ignored, and even marginalised, the TGD community. Not only is it TGD people's human right to access healthcare, but it is also our ethical obligation to provide medical treatment for those who need it in order for them to live their authentic self.

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Challenges faced by trans and gender-diverse people in accessing public sector healthcare services

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'Yes, I have been to the clinic. It was just for a broken bone, but they made me undress. Maybe they wanted to see if I was really a girl? I don't know. They were asking me silly questions and coming in and out of the room while I was waiting for the ambulance. Like: 'Uyisitabane?' (Are you gay?) They don't understand, they don't know about us transgender?'

This excerpt details the experience of a transgender person at a clinic, from a study conducted in KwaZulu-Natal[1] that aimed to detail experiences of transgender people seeking care at government health facilities.

The South African Government has developed a constitution that is exceptional as far as human rights are concerned, granting rights to all South African citizens, including minority groups such as trans and gender-diverse (TGD) persons.[2] Despite such political will and legal protection, TGD people in South Africa report poor access to health services, both intentionally and unintentionally, due to structural and systemic barriers in health facilities.[3]

Structural barriers encountered include failure of the healthcare system to provide a conducive environment such as unisex bathrooms and appropriate ward arrangements for trans and gender-diverse persons who are admitted to hospital.[1, 4]

Systemic barriers include erasure through failure to acknowledge the existence of TGD people within the health system.[5] This erasure can be passive, through lack of knowledge, data, policies and practice guidelines, resulting in a paucity of programmes that cater for TGD patients.[1, 6]

Evidence suggests that South African healthcare workers are not adequately trained to deal with health issues faced by TGD people.[7, 8] As a result, they often lack sensitivity, thus exhibiting various degrees of transphobia.[9]

Yet, TGD people experience an increased burden of disease, specifically in the areas of HIV, mental health, violence and victimisation. Notably, TGD people have a disproportionately high HIV acquisition rate even in areas with low HIV prevalence.[10, 11]

Definition of key concepts

Transgender is a term that refers to persons whose gender identity is different to that expected on the basis of sex assigned at birth.[12]

'Gender diverse' is a term to describe 'people who do not conform to society's or culture's expectations for men and women'.[13]

'Cisgender' is a term for someone whose gender identity is the same as that expected on the basis of sex assigned at birth.[12]

For this article, trans and gender-diverse (TGD) will be used as an umbrella term to include transgender, gender -nonconforming, genderqueer and gender-diverse people.

It is important to note that gender identity (*the gender I know myself to be*) is different to sexual orientation (*who I am romantically or physically attracted to*).[14]

Transphobia is emotional disgust, fear, hostility, violence, anger or discomfort felt or expressed towards people who do not conform to the gender expectations of society.[15]

Gender affirmation is a process of affirming one's gender identity, either by social expression, psychological validation, medically (hormones, surgery), and/or legally (legal gender and name change).[16]

South African reality

Transgender women have been found to be at high risk for HIV and are therefore included in South Africa's *National Strategic Plan for HIV, TB and STIs 2017 - 2022* as a key population.[17] A systematic review reported that TGD women were at 48.8 times higher risk for HIV infection compared with all adults of reproductive age across 15 countries.[10] A study of 230 TGD women in New York found that 'gender abuse predicted depressive symptoms, and gender abuse combined with depressive symptoms predicted both high-risk sexual behaviour (unprotected receptive anal intercourse) and HIV'.[18] A Cape Town study of men who have sex with men (MSM) found that 57% the gender non-conforming participants (who identified as female or transgender) had tested HIV-positive compared with 31% of the male-identifying participants.[19]

A recent survey on the realities of violence, mental health and access to healthcare related to sexual orientation, gender identity and expression (SOGIE),[20] found alarming rates of mental health challenges among the trans and gender-diverse respondents: depression (63%), anxiety (39%) and suicide attempts in the past year (16%). Experience of sexual violence in the past year was reported by 35% of transgender women and 28% of transgender men. Regarding access to healthcare, 48% reported having been called names or insulted in a health facility, and 39% reported that they had been denied healthcare because of their gender identity.[20]

Experiences in health facilities

In a KwaZulu-Natal study,[1] participants reported encounters with hostile health services, in instances of micro aggressions, which are 'subtle forms of discrimination, often unintentional and unconscious, which send negative and denigrating messages to various individuals and groups'.[21] Participants reported experiences of denial of privacy: violation of bodily privacy through healthcare worker voyeurism and deliberate exposure of their transgender status to other patients, and being made a spectacle to other patients and healthcare workers.[1] There is evidence that some healthcare workers tend to use religious and cultural beliefs to explain their behaviour towards sexual minorities.[9] Barriers can be created by healthcare workers citing their belief system, in what is termed spiritual violence, referring to the oppression of sexual- and gender-minority people through religion.[22]

In addition to the difficulties accessing general healthcare, TGD people find it very difficult to access hormone replacement therapy and surgery for gender affirmation.[23]

The National Department of Health added hormones for the treatment of 'gender dysphoria' to the Tertiary Essential Medicines List in December 2019.[24]

How would trans people like to be treated?

Gender-affirming healthcare is more than just transition-related care and refers to an affirming experience in all healthcare encounters.[16] A focus group of transgender and gender-nonconforming youth identified the top ten things they want healthcare workers to know, in their own words:[25]

1. *Sexuality and gender are two different things.* ***Totally*** *separate.*
2. *Talking to strangers about these things is uncomfortable.* Talking to a medical provider about my gender identity and puberty can be painful and awkward. Be patient and do all you can to create a comfortable atmosphere.
3. *Nonbinary people exist.* When health workers think of transgender people, they usually think of people who identify as 100% girl or 100% boy. A lot of us don't think that way. I may feel that neither label fully describes me or that I feel male or female in different situations. Resist the urge to place me into descriptive buckets and respect my individual identity, which may well be somewhere along a continuum.
4. *Names, pronouns, and gender markers are important.* I want people to understand me and respect me for the person I am. When you call me by the wrong name or pronoun, this can feel like an insult. If you are not sure what to call me, just ask, it is always better to ask than to assume.
5. *Don't ask about my genitals unless medically necessary.* Many people are curious about what I have or want 'down there.' But please, don't ask me about my genitals just because you're curious. I wouldn't ask you about yours. If there is a medical reason to ask me about my genitalia, please let me know the reason before asking the question.
6. *Genital and breast exams are uncomfortable for most people, and they can be particularly uncomfortable for me.* I may be extremely uncomfortable with my current physical body, because it doesn't match who I know myself to be. If it is necessary to examine me, please explain the reason.
7. *Cross-sex hormones can save my life.* As I know people are judging me for being different, the quicker that I can feel like I am moving toward the body I am inside, the better and more comfortable I will feel with myself.
8. *Please train your staff as well.* There have been many times where I go to medical appointments and I am called by my birth name and am looked at funny or questioned because my outward appearance might not match the gender marker in my medical record. Please train your staff to look for my preferred name in my medical record, as this might differ from my legal name, and ask me what my preferred pronoun is, rather than assuming.
9. *If I am depressed or anxious, it's likely not because I have issues with my gender identity, but because everyone else does.* Many of us are anxious and depressed not because we are transgender, but because other people have a problem with us being transgender. Please acknowledge this when talking to me about my mental health.
10. *Let me know that you are on my team.* Many of us have had to put up with bullying and misunderstanding in school and in our communities. We want to know that health professionals are on our side and will not judge us.

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Harm reduction for people who use drugs in Southern Africa

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Drugs

We all use psychoactive substances. This includes substances we may not think of as drugs.[1] Sugar, for example, is a substance that releases endogenous opioids in our brain, giving us a sense of pleasure when consumed. Animal models show that the repeated use of sugar leads to tolerance and cessation of intake results in withdrawal.[2] Even though sugar is a causative factor of obesity and diabetes,[3] it is widely used, often several times daily. The consumption of sugar is culturally acceptable so there is not much stigma associated with its use, unless connected to obesity.[4] As it is legally regulated, sugar can be bought in pure form from a reputable seller, with very low risk of poisoning from adulterants, and can be used without risk of arrest. Healthcare workers are aware of diabetes and are equipped to manage it following evidence-based guidelines. Insulin is affordable and accessible at all levels of care, and needles and syringes – along with counselling – are provided for its injection for those who need it.

Sugar is an extreme example, but shows how we view various mind-altering substances that have the potential to do harm differently. The example highlights how regulations have life-changing, often unacknowledged consequences. As healthcare providers, we would not accept using interventions to treat diabetes that do not work or that harm people. Nor would we require people with diabetes to reuse or share their injecting equipment. So why do we look at illegal drugs and the people who use them so differently?

Moral views on drug use

Drugs may (positively or negatively) affect an individual physically, mentally and socially. They may also affect society in these ways.[5] However, society's view of drugs like heroin (also known as (aka) nyaope or whoonga), cocaine, methamphetamine (aka tik, crystal or meth) or cannabis (aka dagga) has been significantly influenced by global drug policy. And global drug policy has been greatly swayed by the political agendas of economically powerful nations.[6] Several international conventions outline the international scheduling of drugs.[7] However, this classification is not based on scientific evidence. The Single Convention on Drugs (1961) framed the use of drugs as 'evil', and this moral view has endured.[8] Schedule 1 substances (1961 Single Convention) were noted to be 'highly addictive and liable to abuse' – and included heroin, cocaine and cannabis. The 1971 Convention on Psychotropic Substances included an additional group of schedule 1 substances with 'high risk of abuse, posing a particularly serious threat to public health with little or no therapeutic value' – and included 3,4-methylene-dioxy-methamphetamine (MDMA), commonly known as ecstasy.[7] Despite the risk of developing dependence, or public health implications, neither alcohol, nor tobacco were scheduled and their use is rarely viewed as 'evil'.

Alcohol was responsible for the most overall harm in a scientific review of harm done to individuals and society in

relation to commonly used substances in the United Kingdom.[5] In order of overall harm, alcohol is followed by heroin, crack cocaine, methamphetamine, powder cocaine, tobacco and other less harmful, yet scheduled, substances.[5] Most of the harm related to alcohol is in relation to harm to society. However, alcohol causes more harm to individuals than powder cocaine or cannabis. On the other hand, the induvial and social harms linked to cannabis are less than tobacco. And MDMA causes little harm to individuals and negligible harm to society.[5] Emerging trials, repeating what was suggested in the 1980s, are confirming MDMA's efficacy as part of treatment for post-traumatic stress disorder and anxiety.[7] So, the unscientific scheduling of drugs and moral perspectives within the drug conventions have been applied across the world, reflected in national legislation, internalised and are often viewed as truth.

The scale of drug use

The availability and use of drugs has increased despite the war on drugs and criminalisation of people who use them.[9] Many people and communities in Southern Africa experience a range of social challenges that negatively affect their health and well-being. These include high rates of unemployment, socioeconomic inequality, violence and a high burden of physical and mental illness.[10] For many people, substances provide relief, comfort and analgesia against the stress and trauma in their lives, and give them pleasure.[11] The substances used depend on a combination of accessibility, affordability and preference.

Data on the prevalence of drug use are often limited, mostly due to the legislative framework. The number of people accessing substance-use treatment in South Africa for opioids in the last two decades has increased six-fold.[12] United Nations agency estimates suggest that there are around 200 000 people who use heroin[13] and 75 000[14] who inject drugs in the country. Local research into the heroin market suggests that these are underestimates.[15] The numbers of people who use methaqualone (also known as mandrax), methamphetamine and cocaine are unknown, but there are likely to be hundreds of thousands of people who use these drugs in the country.

It is important to note that most people who use drugs will not develop dependence; so not all people who use drugs require treatment. The likelihood of developing dependence, and the need for treatment, is higher for heroin than for other illegal drugs (see text box below). Entry into the criminal justice system is a strong predictor of developing harmful, ongoing substance dependence.[16]

The effects of drug policy and the healthcare system

Kofi Annan believed that 'drugs have destroyed many lives, but wrong government policies have destroyed many more'.[19] The criminalisation of drugs significantly increases drug-related harms. The criminalisation approach increases the likelihood of drug-related poisoning, contributes to stigma and discrimination of people who use drugs and results in many people entering the criminal justice system.[20] The healthcare system is largely affected by this ineffective and harmful approach.

Injuries and complications from using (unsafe) drugs in high-risk and unhygienic places to avoid arrest are usually dealt with by the healthcare system. This system also supports people experiencing acute psychiatric emergencies (e.g. drug-induced psychosis), severe infections (e.g. abscesses) or complications of chronic illness (e.g. late stage HIV infection), often due to avoidance of health services for fear of arrest or fear of stigma.[14, 21]

The limited access to evidence-based prevention and treatment interventions for people who use drugs results in further harm. For example, the risk of infectious diseases (notably HIV and viral hepatitis) is increased where injecting equipment needs to be reused or shared.[22] Another example is how many people and their families become frustrated when substance use treatment services are unavailable, or how they become disillusioned when the available interventions do not work. For people with opioid dependence, over 90% of those who are treated through detoxification followed by abstinence-based drug rehabilitation return to opioid use within a year.[23] The inaccessibility and unaffordability of methadone or buprenorphine[24] – essential medicines for opioid substitution therapy (OST) – creates despair for many people who have heroin dependence, and their families.

The high prevalence of substance use and its criminalisation affects healthcare workers. Professionally, the health workforce is at the forefront of managing the health-related harms of current approaches to drug use and of problematic drug use itself. Many healthcare workers use substances,[25] and many more have family members with potentially harmful patterns of use. These factors negatively affect the wellbeing of the health workforce and their capacity to provide quality care. It is for this reason that healthcare professionals should be aware of effective drug treatment interventions and alternatives to current approaches – like harm reduction – and be at the forefront of advocating for the decriminalisation of drug use.[26]

Nyaope and whoonga are heroin

Nyaope and whoonga are not uniquely South African drugs. The main, and often only ingredient, is heroin. They do not contain antiretrovirals.[17] Heroin is an opioid, derived from the sap of the opium poppy. Opioids bind to receptors in the brain and results in analgesia, euphoria and sedation. After repeated exposure to opioids, changes in the sensitivity and responses of receptors takes place, as well as adaptations to neuronal circuits responsible for motivation, memory, behaviour control and disinhibition. Tolerance to opioids develops after prolonged exposure, due to changes and reduction in the number of opioid receptors. Withdrawal is the result of cessation of an opioid after tolerance has developed. Withdrawal is very unpleasant. Symptoms include sweating, tearing, coryza, yawning, restlessness, irritability, tremor, nausea, vomiting, diarrhoea, increased blood pressure, cramping and myalgia, which can last several days.[18]

What is harm reduction?

Harm reduction can be viewed as 'polices, programmes and practice that aim primarily to reduce the adverse health, social and economic consequences of the use of legal and illegal psychoactive drugs without necessarily reducing drug consumption'.[27] Harm reduction is an approach that focuses on concerns and interventions at various levels. It does not focus on the causes of drug use and the ways to stop it. Emphasis is placed on ways to support people to achieve health through beneficent, equitable and fair means. This is done while limiting harms, and acknowledging that change takes time, and that resolution of a substance use disorder is a long-term goal.[28]

Harm reduction includes a set of principles that can be applied to any health issue. Needle-and-syringe services and OST are sometimes seen to be controversial, with the controversy based on moral reasons, as their effectiveness is unequivocal.[29] Harm reduction is much more than these two services, but dispelling myths about what these services are, why they are needed and how well they work, is a good start.

Needle-and-syringe services

Needle-and-syringe services, or needle-and-syringe programmes, involve the provision of sterile injecting equipment to people who inject drugs, with mechanisms for the safe collection and disposal of used equipment.[29] This intervention is effective and cost-saving.[30] Consistent access to sterile injecting equipment significantly reduces HIV infection through parenteral transmission routes.[29] They are the foundation of HIV and viral hepatitis prevention programming for people who inject drugs.[31] The service is linked to counselling and support around safer drug use, and provides links to other health and social services. Needle-and-syringe services can easily and affordably be integrated into all levels of health services as well as be provided through community pharmacies.[31] Needle-and-syringe services do not increase injecting practices[29] and are often the first point of contact people who inject drugs have with service providers who care.[32]

The first needle-and-syringe service in South Africa started in Cape Town in 2013.[10] Needle-and-syringe services currently operate in nine South African Health Districts, and also in Mozambique, Kenya, Tanzania, Mauritius and 81 other countries across the world.[33] Political interference has resulted in the (temporary) halting of needle-and-syringe services in several South African cities. In Durban, for example, the service has been on hold for 2 years – leading to hundreds of people having to reuse and share equipment, despite the related risks.[34] Efforts are ongoing for services in Durban to resume, and the consequences of blocking this public health intervention need to be shared to avoid this from happening again.

From a public health perspective, denying access to needle-and-syringe services for people who inject drugs is the same as denying access to condoms to people who have sex. The difference lies in personal perspectives and judgements around 'acceptable' behaviour, and ultimately stigma.

Opioid substitution therapy

OST (also known as opioid agonist treatment or medication-assisted therapy) is the practice of prescribing an opioid agonist medication such as methadone or buprenorphine at an appropriate dose for as long as a person needs it.[18] OST is the gold standard treatment for opioid

dependence, and a core element of harm reduction for people who use opioids.[31] OST reduces mortality, reduces HIV and viral hepatitis transmission and also reduces crime and enhances wellbeing.[29] Globally, 86 countries have at least one OST programme.[35]

In South Africa, neither methadone nor buprenorphine are yet on the Essential Medicines List for OST as maintenance. The National Department of Health has a draft OST Implementation Plan and has draft OST Clinical Guidelines. A handful of tertiary hospitals have OST clinics, where clients are required to pay for their own medication – with the high cost of medications being the main reason for people dropping out of this service.[24] Most OST is provided by civil society organisations and academic institutions, mostly funded by international donors, in three South African health districts. The City of Tshwane is the only local government municipality to fund OST as maintenance.[36] Prescription by private practitioners also takes place, but rarely in the context of a structured programme.

There are only single (but different) suppliers of methadone and buprenorphine in South Africa. The lack of competition has led to unethically high prices of these medications. Methadone in South Africa costs ten times more than in other middle-income settings.[37] Single supply also poses a risk to supply chain management. A methadone stockout took place in November 2019. The threat of the stockout resulted in anxiety for over 1 000 people on OST across the country and distrust of the health service. The largest OST service in Johannesburg ran out of methadone for 2 weeks, with almost all of their 36 clients (several of whom were on antiretroviral therapy) at that time reverting back to injecting drugs.[38]

During South Africa's response to the COVID-19 pandemic, large temporary shelters were established for homeless people. For people with opioid dependence, a break in access to heroin triggered withdrawal and the likely loss of tolerance to opioids – increasing risk of overdose should opioids be used at a later stage.[39] Several municipalities recognised the risk facing people with opioid dependence. Local responses included the provision of OST to 600 people in shelters in Pretoria, the provision of long-term withdrawal management to 260 people in Durban, and support for symptomatic relief of withdrawal to people in shelters in Cape Town.

The reasons for the limited access to OST in South Africa is unclear. Likely reasons include competing political interests compounded by insufficient understanding of the nature of opioid dependence and the effectiveness of OST.[24, 40] To date there has been little demand for OST from people who use opioids, the broader community or from healthcare professionals.

Other harm reduction interventions

There are many other examples of harm reduction services that improve the lives of people who use drugs and their communities. Safe consumption sites, or injecting sites, are spaces for the safe and hygienic use of drugs. Safe consumptions sites significantly reduce the risk of death from overdose and increase uptake of substance use treatment services.[41] Community distribution of naloxone to manage overdoses among people who use opioids is another important, effective service that saves lives.[31] A range of psychosocial interventions (including access to housing) to support people to reach their goals, without requiring abstinence, have been shown to be successful.[42] Drug checking has also become increasingly important in light of contamination of cocaine and heroin with fentanyl and its analogues, that have caused thousands of deaths in North America.[43] Harm reduction is an evolving field of practice with great public health benefit. Harm reduction seeks to support, and not punish people.

Conclusion

There are many health system challenges that are linked to drug use. The criminalisation of people who use drugs, drug-related stigma, and the challenges of our times, contribute to the high levels of harms related to drug use. Changes in the social determinants will take generations to change. In the interim, there is a need to embrace alternative approaches that can have immediate effect. Harm reduction is an option that is ethical and evidence-based. Harm reduction is more than giving people who inject drugs clean injecting equipment, or increasing access to OST for people with an opioid dependency. It is a shift in philosophy that recognises the complexity of life, and prioritises the needs of people, and supports them on their journey to reach their goals. Most importantly, harm reduction saves lives.

A few recommendations to consider

1. Reflect on your views around drugs and people who use them
2. Avoid judging people and use non-stigmatising language when speaking about, or with, people who use drugs
3. Empower yourself with accurate information about drugs and treatment. Read and use the Southern African HIV Clinicians Society's Harm Reduction Guidelines due for release in the last quarter of 2020
4. Explore ways to provide access to sterile injecting equipment for people who inject drugs and provide mechanisms for safe disposal in your practice
5. Demand increased access to OST
6. Advocate for the decriminalisation of drug use and policy that supports human rights and evidence-based public health interventions relating to drug use.

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Can the nursing profession contribute to realising the treatment and prevention targets of the *HIV, TB and STIs National Strategic Plan 2017 – 2022*?

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What is 90-90-90?

90% of people living with HIV know their status; 90% of those who know their status are on treatment; and 90% of those on treatment are virally supressed

South African nurses currently support an estimated 7.5 million people living with HIV in South Africa and 4.7 million people on antiretroviral treatment (ART) in the public health sector. Nurses are at the frontline of the biggest ART programme in the world and the fifth-largest TB programme in the world. Through the implementation of the *HIV, TB and STIs National Strategic Plan 2017 – 2022* (NSP), much progress has been made towards reaching the 90-90-90 targets.

The 2016 Human Sciences Research Council HIV household survey suggested that 85% of South Africans know their HIV status, with 4.5-million on antiretrovirals – the largest ART programme in the world – and 86% of those on treatment are virally suppressed. Progress has been made in the prevention of mother-to-child transmission of HIV (PMTCT) – recorded at <1% nationally.

Despite these achievements, HIV prevalence remains high (20.4%) among the general population, and South Africa is lagging behind when it comes to reducing new HIV infections, especially among adolescent girls and young women. An estimated 250 000 people contract HIV every year, and of these almost 1 300 women between the ages of 15 and 24 years became HIV-positive each week. This scenario needs to look different by 2022: we need to have halved the number of people who contract HIV each year and have slashed new infections among young women by almost 40%.

As we ask ourselves, 'how do we reduce new infections by 60% in a mere two years?', the country recognises the need to enhance commitment and support for nursing roles in meeting the goals of 90-90-90. Nurses, as both frontline HIV care providers and the country's largest health work force, are key to ensuring we achieve 90-90-90, which will require greater investments in nursing.

As the largest healthcare profession in the world, there is no doubt that nurses are key to the achievement of the NSP targets. Nurses are often the only health professionals accessible to many people in their lifetime. Nurses are particularly well placed and often the most innovative in reaching under-served and key populations for HIV and TB. Rene Sparks, a South African National AIDS Council civil society leader – herself a nurse – agrees with this sentiment, saying: 'we cannot continue ill-equipping nurses, and should rather empower them to comfortably supervise the first 90, manage the second 90 and jointly monitor the third 90 in collaboration with partners'.

As the field of HIV treatment and prevention is evolving rapidly, new therapies have transformed HIV into a chronic disease, while the use of such preventive strategies as pre- (PrEP) and post-exposure prophylaxis (PEP) are providing effective options for reducing the risk of HIV infection. These medical breakthroughs have enabled more people living with HIV (PLHIV) to reach older adulthood, but also mean that nurses are seeing more PLHIV who have been long-term on ART, and possess concurrent chronic conditions associated with aging. Nurses play a critical role in caring for PLHIV and those at risk for HIV infection.

To achieve the NSP targets, it is imperative that nurses working in the acute care setting are able to anticipate and understand the physical and psychological needs of PLHIV, who may be admitted for treatment of any number of non-communicable diseases (NCDs) associated with advanced age, long-term ART, or long-term complications associated with advanced HIV disease (AHD). In addition, nurses working in the community or primary care setting have numerous opportunities to identify patients at risk for HIV infection, inform them of prevention strategies such as PrEP and PEP, and to promote ART adherence among PLHIV, while teaching them strategies to reduce risk factors for other chronic diseases, such as heart disease and diabetes. Working together, nurses and other healthcare providers can help end the epidemic.

Unfortunately, as the HIV/AIDS epidemic has faded from headlines, HIV/AIDS education has decreased in most nursing schools, and undergraduate students receive minimal HIV/AIDS education. Many nursing students nearing graduation report feeling unprepared to care for patients with HIV. This results from lack of knowledge, which can perpetuate fear and stigmatising attitudes towards PLHIV.

Also, with the introduction of task-shifting, and nurse-initiated management of antiretroviral therapy (NIMART) in the public sector that enabled the country to rapidly expand its HIV treatment programme, the need for easy access to HIV and tuberculosis (TB) information increased. Challenges stemming from a shortage of human resources, a lack of suitable materials to use when caring for HIV-positive patients, unconducive environments in which nurses are working, as well as high workload, low staff morale and long working hours, have all fuelled nurses' frustrations. Non-standard training, long curricula and unsustainable donor-funded HIV treatment programmes have contributed to hindering the ability of nurses to enhance patient management and ensure improved quality of care. Since nurses can also be infected with HIV, they encounter discomfort, as well as fear, that their status will become known at work, which leads to increased absenteeism, stress, and lower performance.

In many ways, the advent of the AIDS epidemic has intensified and broadened challenges faced by South African nurses as healthcare providers in institutionalised healthcare. If we are to achieve the targets set out in the NSP, we need to support nurses to engage in advocacy and in lobbying. Nurses must be involved in the development of HIV programmes, as it is nurses who have the practical knowledge of how health service delivery can be designed, co-ordinated and effectively implemented.

Moving forward, the South African healthcare system needs to: ensure that future nurses are equipped to manage the complexities of caring for HIV-positive patients of all ages; sustain the sense of community among HIV nurses and patients since 'people are in it for the long haul'; ensure the six building blocks of health workforce strengthening for the nurse workforce: infrastructure improvement, curricula revision, clinical skills development, in-service training, faculty development and building partnerships for policy and regulation to increase the quality and quantity of the nursing and midwifery workforce. Moreover, the HIV workforce is aging, and there is a 'need to bring in the new guard of primary care providers'.

National nurse associations have an important role in informing, advising, encouraging and supporting nurses in their work. These associations must continue to work with government, and others, to strengthen the health system and create the conditions necessary to maximise the contribution of nurses, including how nurses can fulfil the important role of helping to achieve the NSP targets.

The countdown towards an AIDS-free generation is on. The clock is ticking and we are running out of time. Each and every one of South African nurses can make a difference.

Improving access to private healthcare in South Africa: The Quadcare model and community healthcare services

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Chief Executive Officer and Founder, Quadcare Medical Centers, Gauteng Province, South Africa

Statistics South Africa (Stats SA) published its latest General Household Survey (GHS), revealing the number of South Africans who are covered by a medical aid scheme. The group's data show that between 2002 and 2018, the percentage of individuals covered by a medical aid scheme increased marginally from 15.9% to 17.1% in 2016, before declining to 16.4% in 2018. On 22 June 2020, Stats SA confirmed that in the first quarter of 2020, before the country went into national lockdown, the unemployment rate rose to 30.1%.[1]

In their article on Inequities in Access to Healthcare in South Africa, Harris *et al*., found that socio-economic status, race, insurance status, and urban-rural location were associated with lack of access to care.[2] Black Africans, the poor, uninsured and rural respondents, experience the greatest barriers. The barriers are even higher for marginalised populations, including lesbian, gay, bisexual and transgender people (LGBTQIA is the standard acronym used) who face barriers because of stigma, discrimination, abuse and unprofessional behaviour of healthcare workers when accessing healthcare services in South African public health facilities.[3]

Many South Africans do not have disposable cash. We have a public health system that is highly overburdened with generally demotivated and non-sensitised staff.[3] Many of the private health services are concentrated in affluent suburbs and towns where people can afford to pay the private rates for healthcare. To be able to access decent levels of healthcare, people residing in townships and rural areas must take the little money they have out of their pockets and travel far.

Quadcare was established in 2019 as a facility that serves the 'missing middle' by providing access to quality health services that are affordable, geographically accessible (townships and rural areas), and recognise and uphold patient love and dignity irrespective of race, gender, sexuality, income levels and age. The company wanted to challenge the idea that only people with high income can access good quality healthcare. The aim was to design a model that would provide inclusive care that has the potential to improve health outcomes for all people, while reducing healthcare costs for society.

The company is an innovative network of affordable, world-class medical centres in grassroots communities to ensure this access. Quadcare leverages task-shifting, technology and innovation to provide patient-focused primary healthcare services to these communities. Quadcare is a network that offers services at more competitive and affordable prices than its competitors. On average, prices are more than 50% less than that of individual practitioners. Furthermore, wider coverage allows Quadcare to establish a good reputation in communities as a safe space and reputable service providers.

The clinics are in Gauteng in the following areas: Carletonville, Meadowlands, Turffontein, Fox Street in Johannesburg CBD, Edenvale, Braamfontein, Alexandra and the University of Johannesburg.

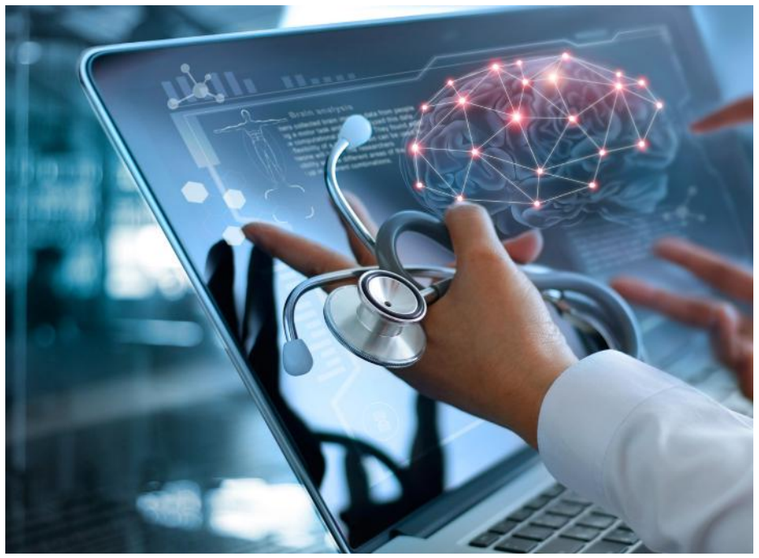
Task-shifting and technology

In 2008, South Africa developed an innovative mid-level medical worker model that can contribute substantively to the development of quality district-level healthcare.[4] The clinical associate was conceptualised as a health professional that would provide a long-term solution to human resource constraints in district hospitals. Clinical associates qualify with a Bachelor of Clinical Medical Practice and are consequently registered with the Health Professions Council of South Africa.[5] They have the necessary skills and knowledge to function effectively mainly in primary healthcare settings such as clinics, community health centres (CHCs) and district hospitals. Their scope of practice includes:

- Conducting consultations (history taking and physical examination)
- Ordering and interpreting investigations (e.g. electrocardiograms, laboratory tests, X-rays)
- Diagnosing and treating common conditions
- Performing procedures (e.g. lumbar puncture, intercostal drain)
- Assisting in surgery (e.g. caesarean section)
- Providing patient education and counselling
- Making appropriate admissions, discharges and referrals
- Prescribing medicines for common and important conditions according to the Essential Drugs List up to Schedule 4
- Issuing sick certificates for a period not exceeding 3 days and that should contain the name and contact details of the supervising registered medical practitioner
- Working under the supervision of a doctor – the supervising medical practitioner must be identified by the service in which the clinical associate is working and must always be available to the clinical associate
- Performing any act delegated by the supervising medical practitioner in accordance with the education, training, and experience of the clinical associate.

The Quadcare clinical team includes doctors, nurses and clinical associates. The company makes use of clinical associates to allow for increased, affordable access to private primary healthcare. Clinical associates can perform tasks and procedures that have been delegated by doctors, allowing doctors to focus on tasks for which they are uniquely qualified, e.g. diagnostic work and supporting the development of primary care services. The doctors then become responsible for supervision and development of policies, protocols and procedures which need to be adhered to by the clinical teams. This allows the different professionals to provide better quality care within their own scopes of practice, improving access for marginalised communities and reducing the need for referral. They are less costly to hire, and one doctor can supervise more than one making the cost of healthcare affordable for the patients.[6] Quadcare emphasises the culture of love, tolerance and non-discrimination in its hiring practices and in its educating of health professionals, making the team a safe and accessible space for the patients who interact with us.

Technology plays a critical role in the Quadcare delivery model. Patient records are electronic. Practices make use of tools such as Google Suite and Registers. This allows for greater time management, improving on waiting time and consult time. The system also allows for clinical supervision, data collection and management of ICD-10 codes, to monitor patient conditions, assist with stop control and pick up on abnormalities rapidly.[7] This allows for proper data and health statistics collection, monitoring and supervision of care provided by the clinical team, financial data collection and even management of the patient experience. With the country working towards having the National Health Insurance and Universal Health Coverage, Quadcare will be well placed to provide accurate data and health trends that will help build this.



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WHEN WE CONNECT THINGS GET MUCH BETTER QUICKLY – ACCESSING HIV CARE IN PHARMACIES

Our vision is to increase HIV prevention, testing, treatment, and care options in pharmacies. Pharmacists, Nurses and GPs have come together to reinforce your support network – there is no question you cannot ask them.

7.7 million South Africans are living with HIV and every day another 657 are infected. Each year 71,000 people die from complications linked to HIV – this may be your mother, sister, boyfriend, or best friend. The good thing is that 90% of people living with HIV know their status, 62% have gotten on treatment, and 54% have undetectable viral loads. If we connect, we can improve these numbers by making services available in more locations with longer opening hours.

The Southern African HIV Clinicians Society (SAHCS) is leading EPIC - Expanding PrEP/ART Innovation Consortium to expand HIV care at pharmacies. SAHCS has been supporting and strengthening the HIV knowledge and capacity of its 10 000+ members since 1998.

EPIC aims to increase access to HIV services by working with independent retail pharmacies. Everyone can come in for confidential support for HIV testing, emergency contraception, family planning, or sexual health questions. Pharmacies are open late and on weekends, waiting times are often shorter than at clinics or hospitals, and all HIV services can be found under one roof.

The EPIC Consortium developed PIMART – the first ever course for Pharmacy-Initiated Management of Anti-retroviral Treatment. Pharmacists who complete the course will be permitted to start patients on ART, including PEP and PrEP (pre- and post-exposure prophylaxis). Anyone with more complicated conditions or concerns will be referred to the EPIC HIV Expert GP referral network. These are GPs with years of experience supporting HIV care.

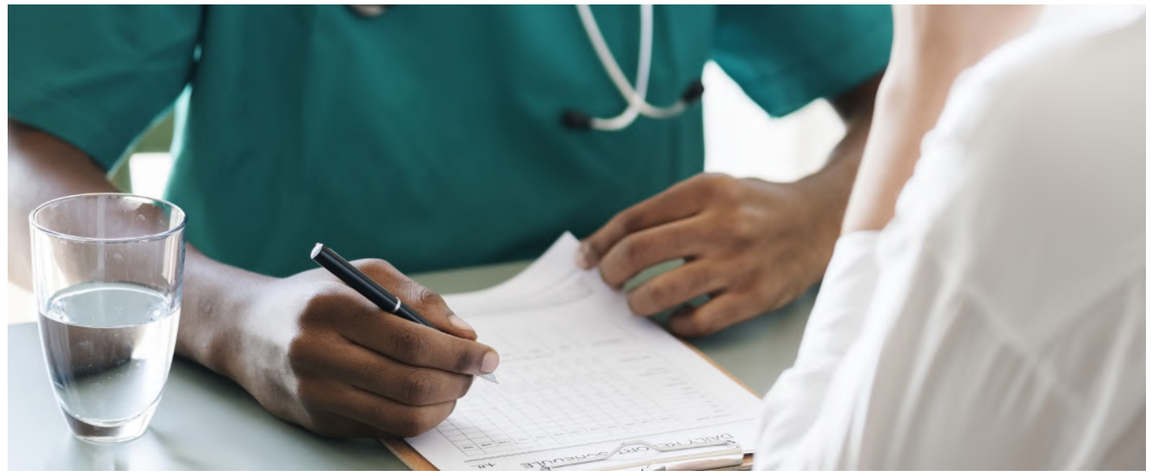
Working together, using our networks, sharing the latest information, and supporting each other helps us clearly see that we are here 4 Each Other.

USAID FROM THE AMERICAN PEOPLE

PEPFAR U.S. President's Emergency Plan for AIDS Relief

EPIC EXPANDING ACCESS TO PrEP AND ARVs INNOVATION CONSORTIUM
PIMART PHARMACY INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY

Clinical tips



1. Family planning and HIV services should always be provided together. Therefore, at every family planning visit, offer HIV testing services.
2. Counselling on the risks and benefits is essential when initiating DTG in women wanting to conceive now or in the near future.
3. Initiating DTG in pregnant women in the first 6 weeks may carry a small risk of neural tube defects. Counsel the patient; allow her to make an informed choice.
4. The benefits of cotrimomazole outweigh the risks in pregnancy in patients with CD4 counts <200 cells/µL, or with WHO clinical stage II, III or IV disease.
5. TB prevention, diagnosis and treatment in women must receive greater emphasis if maternal and child outcome are to be improved.
6. Do an appropriate HIV test at 6 weeks post cessation of breastfeeding, even if breastfeeding continues for longer than 18 months.
7. Universal HIV testing is recommended at 18 months of age for **all** infants regardless of HIV exposure, except those on ART.
8. Pregnant adolescents are at a higher risk for poor adherence and poor viral suppression and require more intensive support.
9. Ensure that any woman diagnosed with TB is adherent to TB treatment and aware that their newborn may require TB prophylaxis.
10. Known HIV-positive women who are not currently on ART but are ART-exposed should initiate a DTG-containing regimen.
11. Pregnancy does not preclude screening for cervical cancer, and it can be performed up to 20 weeks.
12. A TST is not required prior to starting TPT.
13. DTG increases metformin levels therefore maximum metformin dose should be 500 mg 12-hourly. If the patient is on rifampicin, then double the DTG dose to 50 mg 12-hourly. If the patient is on TLD FDC, then add DTG 50 mg 12-hourly after the TLD dose.
14. Adult clients who are not yet on ART when TB treatment is initiated should start on EFV-containing regimen.
15. Switch a stable pregnant woman on ART from EFV to DTG if her VL is <50 copies/mL and she is no longer in the first 6 weeks of pregnancy.
16. If you have any concerns about HIV-positive persons who are COVID-19 symptomatic, please follow the COVID-19 guidelines.
17. Initiate all newly diagnosed HIV-positive patients on TLD and switch those already on TEE (if eligible)
18. Prioritise a switch from TEE to TLD; prescribe multi-month ART and decant eligible clients to external pick-up sites to limit facility visits.
19. Eligible patients must be switched from TEE to TLD as soon as possible. This is the best treatment for HIV-positive patients and will help manage current ART stocks.
20. Clients switched to TLD do not need to return after 1 month (unless new client). Those decanted on TEE who switched to TLD can stay decanted.
21. There is no longer a need for the SAHPRA Risk Acknowledgment Form to be completed before switching clients from TEE to TLD.
22. Clinicians must review the risks and benefits of TLD and TEE with all clients and document their decision in their medical file.

3TC – lamivudine; **ART** – antiretroviral therapy; **COVID-19** – coronavirus disease of 2019; **DTG** – dolutegravir; **EFV** - efavirenz; **FDC** – fixed-dose combination; **FTC** – emtricitabine; **SAHPRA** – South African Health Products Regulatory Authority; **TB** – tuberculosis; **TDF** –tenofovir disoproxil fumarate; **TEE** – TDF/FTC/EFV; **TLD** –TDF/3TC/DTG; **TPT** – tuberculosis preventive therapy; **TST** – tuberculin skin test; **WHO** – World Health Organization.

SOUTH AFRICAN ART CLINICAL GUIDELINES 2019

ADOLESCENTS (≥ 10 YEARS) AND ADULTS

Second version April 2020

NEED HELP?

Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline

0800 212 506 / 021 406 6782

Alternatively "WhatsApp" or send an SMS or "Please Call Me" to 071 840 1572

www.mic.uct.ac.za

ART ELIGIBILITY AND DETERMINING THE TIMEFRAME FOR ART INITIATION

WHO IS ELIGIBLE?

All people living with HIV (PLHIV) regardless of age, CD4 cell count and clinical stage. ART should be initiated within 7 days unless there is a reason to defer. Same day initiation is encouraged if client is clinically well and motivated

REASONS TO DEFER STARTING ART	WHEN TO START ART*
TB symptoms (cough, night sweats, fever, recent weight loss)	No TB: Same day or within 7 days Confirmed DS-TB at non-neurological site: CD4 < 50 cells/µL: within 2 weeks of starting TB treatment CD4 ≥ 50 cells/µL: 8 weeks after starting TB treatment Confirmed DR-TB at non-neurological site: Start ART 2 weeks after TB treatment, once symptoms improved and TB treatment tolerated
Signs and symptoms of meningitis (headache, confusion, fever, neck stiffness or coma)	Investigate for meningitis before starting ART TBM (DS or DR): 4 - 8 weeks after starting TB treatment CM: 4 - 6 weeks after starting antifungal treatment
CrAg-positive with no symptoms or signs of meningitis	2 weeks after starting fluconazole
Other acute illnesses e.g. PJP or bacterial pneumonia	Defer ART for 1 - 2 weeks after commencing treatment for the infection
Clinical symptoms or signs of liver disease	Confirm liver disease using ALT and bilirubin. ALT > 120 IU/L with symptoms of hepatitis (nausea, vomiting, upper quadrant pain) and/or total serum bilirubin concentrations > 40 µmol/L: investigate and manage possible causes before starting ART

*Clients already on ART should NOT have their treatment interrupted upon diagnosis of the above conditions

BASELINE CLINICAL INVESTIGATIONS

- Recognise the client with respiratory, neurological, or abdominal danger signs
- Nutritional assessment (including weight and height)
- Screen for TB. If no symptoms consider TPT
- Meningitis
- Mental health issues/substance abuse
- Major chronic non-communicable diseases (NCDs) e.g. diabetes, hypertension, epilepsy
- Pregnancy or planning to conceive
- Symptom screen for sexually transmitted infections
- WHO clinical stage

BASELINE LABORATORY EVALUATION

TEST AND PURPOSE	INTERPRETATION / ACTION
Confirm HIV test result To confirm HIV status for those without documented HIV status	Ensure that the national testing algorithm has been followed
CD4 count (cells/µL) To identify eligibility for CPT and CrAg screening	Initiate CPT if CD4 < 200 or WHO stage 2, 3 or 4 If **CD4 < 100** a reflex CrAg screening will be done automatically **CrAg-negative:** no fluconazole therapy required. Start ART **CrAg-positive:** the client will require treatment of the infection. All clients, including pregnant women, should be referred for a LP. Defer ART as above
Cervical cancer screening To identify women with cervical lesions	At baseline and thereafter every three years if normal. If lesions present, refer for colposcopy and manage accordingly
HBsAg Identify hepatitis B co-infection	If positive, TDF-containing regimen is preferred. Exercise caution when stopping TDF due to risk of hepatitis flares
Creatinine and eGFR To detect renal insufficiency, and eligibility for TDF	Serum creatinine (SCr) is a waste product filtered by the kidneys used to determine eGFR

Age/Pregnancy status	What must be measured?	Safe to use TDF
≥ 10 and < 16 years	eGFR using Counahan Barratt formula[#]	> 80 mL/min/1.73 m^2
Adult and adolescent ≥ 16 years	eGFR using MDRD equation as provided by the laboratory	> 50 mL/min/1.73m^2
Pregnant	Absolute creatinine level	< 85 µmol/L

[#]Counahan Barratt formula

$$\text{eGFR (mL/min/1.73 m}^2\text{)} = \frac{\text{height [cm]} \times 40}{\text{creatinine [µmol/L]}}$$

	Adults and adolescents	Pregnant women
Haemoglobin (Hb) To detect anaemia	If Hb < 10 do FBC, and follow Primary Care Standard Treatment guidelines If Hb < 8 avoid AZT	If Hb < 10 initiate iron supplementation Refer if: Hb < 8 with symptoms of anaemia, or anaemia and ≥ 36 weeks pregnant, or no response to iron *Take note of DTG drug interactions under key points*
GeneXpert To diagnose TB	Do GeneXpert only if client has symptoms of TB	Routinely done at first antenatal visit, regardless of symptoms

REGIMENS

RECOMMENDED FIRST-LINE IN NEW CLIENTS

Adult women and adolescent girls ≥ 35 kg and ≥ 10 years Provide information on risks and benefits of TEE and TLD to allow client to make an informed choice. Document that woman has been counselled and consents to receive DTG	Not pregnant	Not childbearing potential	TLD
		Childbearing potential, not wanting to fall pregnant, provide contraception	TLD
		Childbearing potential, wanting to conceive	TEE
	Pregnant	First 6 weeks of gestation	TEE
		After 6 weeks gestation	TLD
Adult men and adolescent boys ≥ 35 kg and ≥ 10 years of age			TLD
Client currently on **DS-TB treatment** at ART initiation			TEE

SWITCHING CLIENTS WHO ARE STABLE ON A FIRST-LINE REGIMEN TO DOLUTEGRAVIR

Latest VL (copies/mL) result (within the past 6 months):

- If VL not done within the past 6 months, wait for next routine VL
- Only switch a **stable pregnant woman** on ART from EFV to DTG if her VL is < 50 copies/mL **AND** she **is more than 6 weeks pregnant**

VL < 50	Discuss benefits and risks of switching* and the use of contraception in women of childbearing potential. **If client chooses to switch to DTG:**	
	Current regimen:	**New regimen:**
	TDF + (FTC or 3TC) + (EFV or NVP)	TLD
	(AZT or ABC)[¥] + 3TC + (EFV or NVP)	(AZT or ABC) + 3TC + DTG
VL ≥ 50	Do not switch. Refer to section on viral load monitoring. If the repeat VL after 3 months is ≤ 999, then a switch to DTG can be considered	

*Assess the reason for exclusion of TDF from the NRTI backbone. If TDF was excluded due to TDF-induced nephrotoxicity, continue using the same NRTI backbone. If TDF was excluded due to non-TDF related renal failure that has since resolved, then the use of TDF can be reconsidered. Before switching to TDF, ensure adequate renal function by checking eGFR/creatinine as outlined in the Baseline Laboratory Evaluation Table

SECOND- AND THIRD-LINE REGIMENS WITH CONFIRMED VIROLOGICAL FAILURE

	FIRST-LINE REGIMENS				SECOND-LINE REGIMENS	
REGIMEN	**NNRTI-based Regimen**		**InSTI-based Regimen for > 2 years**		**PI/DTG-based Regimen for > 2 years**	
	TDF + 3TC/FTC + **EFV/NVP**		**TDF** + 3TC/FTC + **DTG**		**AZT/TDF** + 3TC/FTC + **LPV/r or ATV/r or DTG**	
RESISTANCE TESTING	**Resistance testing not required**		**Resistance testing not required**		**Resistance test required**	
RESISTANCE TEST RESULTS	**Not applicable**		**Not applicable**		**No PI or InSTI resistance**	**PI or InSTI resistance**
HBV CO-INFECTION	HBV-negative	HBV-positive	HBV-negative	HBV-positive	HBV-positive[#] or - negative	
NEW REGIMEN	AZT + 3TC + DTG[∞] If DTG not suitable: AZT + 3TC + LPV/r	TDF + AZT + 3TC/FTC + DTG[∞] If DTG not suitable: TDF + 3TC/FTC + LPV/r	AZT + 3TC + LPV/r	TDF + 3TC/ FTC + LPV/r	Continue current regimen and address adherence. If intolerance to LPV/r is affecting adherence, discuss possible substitutions with an expert[β]	Refer to third-line committee. Regimen will be determined by results of resistance test

[#]Ideally clients who are HBsAg-positive should be on a TDF-based regimen if feasible; [∞]Before DTG initiation, all women and adolescent girls of childbearing potential must be appropriately counselled on the potential risk of neural tube defects with DTG use around conception and within the first 6 weeks of pregnancy; [β]Whether remaining on DTG, or switching to DTG, ensure at least one active NRTI in the DTG-containing regimen

KEY POINTS ON THE USE OF DTG vs EFV

	Dolutegravir	Efavirenz
Resistance	• Provides rapid viral suppression • High genetic barrier to resistance	•Low genetic barrier to resistance
Side-effects	• Side-effects are mild and uncommon • Weight gain • Insomnia	•Neuropsychiatric side-effects
Interactions[ϖ]	• Drug interactions with rifampicin, metformin, some anticonvulsants and polyvalent cations (Mg^{2+}, Fe^{2+}, Ca^{2+}, Al^{3+}, Zn^{2+}) • No interaction with hormonal contraceptives	•No significant interaction with rifampicin •Drug interactions with hormonal contraceptives, and many other medicines metabolised by the liver
Pregnancy	• DTG may increase the risk of neural tube defects (NTDs) if used in the first six weeks of pregnancy	•Safe in pregnancy

[ϖ]For more information on drug-drug interactions contact the National HIV- & TB HCW hotline at 0800 212 506

Based on the 2019 ART Clinical Guidelines for the Management of HIV in Adults, Pregnancy, Adolescents, Children, Infants and Neonates, Updated March 2020

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FOLLOW-UP MONITORING IN CLIENTS ON ART

CLINICAL ASSESSMENT AND RESPONSE

- Weight
- Screen for TB and other OIs
- WHO clinical staging
- Screen for pregnancy and ask if planning to conceive
- Ask about side-effects, especially sleep and gastrointestinal disturbances

VIROLOGICAL AND IMMUNOLOGICAL RESPONSE TO ART

TEST	ACTION/INTERPRETATION
CD4 count At 1 year on ART	Repeat CD4 6 monthly **only** if CD4 < 200 **or** VL ≥ 1000 Stop CD4 monitoring if VL < 1000 and CD4 > 200. Stop CPT if CD4 > 200
Viral Load (VL) Month 6, 12 and then 12-monthly if VL suppressed	

VL	RESPONSE
≥ 1000	Do thorough assessment of the cause of an elevated VL: Consider adherence problems, intercurrent infections, incorrect ART dose, drug interactions and resistance. Implement interventions, including adherence support. Repeat VL in 3 months If VL still ≥ 1000 and on **NNRTI** regimen: Consider switching to second-line if virological failure confirmed, i.e. VL ≥ 1000 on 2 consecutive occasions and adherence issues addressed If VL still ≥ 1000 and on **PI-based or InSTI (DTG)** regimen: Consider switching if virological failure confirmed, i.e. VL ≥ 1000 on at least 3 occasions over the course of 2 years, or VL ≥ 1000 with signs of immunological or clinical failure (i.e. declining CD4 and/or opportunistic infections)
50 – 999	Do thorough assessment of the cause of an elevated VL. Consider adherence problems, intercurrent infections, incorrect ART dose, drug interactions and resistance. Implement interventions, including adherence support. Repeat VL after 3 months. If VL 50 - 999 again, repeat in 6 months. For < 50 or ≥ 1000 follow table
< 50	Continue routine VL monitoring and routine adherence support. Client is doing well

DO THE FOLLOWING TESTS IF THE CLIENT IS ON THE DRUG THAT MAY CAUSE THE ADVERSE EVENT

DRUG	TEST	FREQUENCY	ACTION/INTERPRETATION
TDF	Creatinine	Month 3, 6 and 12. Then 12-monthly	See creatinine and eGFR section at baseline laboratory testing
AZT	FBC + differential WCC	At months 3 and 6, thereafter if clinically indicated	Hb > 8 g/dL: Continue AZT Hb ≤ 8 g/dL: Use alternative – consult with expert
PI-based regimen (LPV/r, ATV/r, DRV/r)	Cholesterol + triglycerides (TGs)	At month 3, if above acceptable range, do fasting cholesterol and TGs	To monitor PI-related metabolic side-effects. Consult with specialist if fasting cholesterol and TG still above acceptable range
TB treatment **or** NVP **or** EFV	ALT	Signs/symptoms of hepatitis (e.g. nausea, vomiting, jaundice)	If ALT is abnormal, refer to specialist or phone the HIV hotline (0800 212 506)

DOSAGE

ANTIRETROVIRAL	USUAL ADULT DOSE	DOSE ADJUSTMENT IN RENAL IMPAIRMENT	
		eGFR 10 - 50 mL/min	eGFR < 10 mL/min
Abacavir (ABC)	300 mg twice daily OR 600 mg once daily	Normal dose	Normal dose
Atazanavir + ritonavir (ATV/r)	300 mg/100 mg once daily	Normal dose	Normal dose
Darunavir + ritonavir (DRV/r)	600 mg/100 mg twice daily OR 800 mg/100 mg daily (depending on mutations)	Normal dose	Normal dose
Dolutegravir (DTG)	**No integrase inhibitor mutations:** 50 mg daily. If also on rifampicin: boosting of DTG required. The dosing frequency of DTG should be increased to 50 mg 12 hourly. If on TLD FDC, then add DTG 50 mg 12 hours after TLD. Continue boosting until 2 weeks after rifampicin discontinued **Integrase inhibitor mutations present:** 50 mg twice daily. If also on rifampicin, avoid DTG	Normal dose	Normal dose
Efavirenz (EFV) (Swallow tablet whole)	600 mg daily (or 400 mg if < 40 kg); usually given at night	Normal dose	Normal dose
Emtricitabine (FTC)	200 mg once daily (not available as single agent)	Not applicable	Not applicable
Lamivudine (3TC)	150 mg twice daily OR 300 mg once daily	150 mg daily	50 mg daily
Lopinavir + ritonavir (LPV/r) (Swallow tablet whole)	400 mg/100 mg twice daily NB: Clients on a rifampicin-containing TB regimen: Increase LPV/r to 800/200 mg twice daily slowly over 2 weeks with ALT monitoring. Continue double dose for 2 weeks after stopping rifampicin	Normal dose	Normal dose
Raltegravir (RAL)	400 mg twice daily	Normal dose	Normal dose
Tenofovir (TDF)	300 mg once daily	Avoid use	Avoid use
Zidovudine (AZT)	300 mg twice daily	Normal dose	300 mg daily

3TC = lamivudine; **ABC** = abacavir; **ART** = antiretroviral therapy; **ATV/r** = atazanavir and ritonavir; **AZT** = zidovudine; **CM** = cryptococcal meningitis; **CPT** = cotrimoxazole preventive therapy; **CrAg** = cryptococcal antigen; **DR** = drug-resistant; **DS** = drug-sensitive; **DTG** = dolutegravir; **DRV/r** = darunavir and ritonavir; **EFV** = efavirenz; **eGFR** = estimated glomerular filtration rate; **FTC** = emtricitabine; **HBV** = hepatitis B virus; **HBsAg** = hepatitis B surface antigen; **InSTI** = integrase strand transfer inhibitor; **LPV/r** = lopinavir and ritonavir; **LP** = lumbar puncture; **NRTI** = nucleoside reverse transcriptase inhibitor; **NNRTI** = non-nucleoside reverse transcriptase inhibitor; **NVP** = nevirapine; **PI** = protease inhibitor; **OI** = opportunistic infection; **PJP** = *Pneumocystis jirovecii* pneumonia; **TB** = Tuberculosis; **TBM** = Tuberculosis meningitis; **TDF** = tenofovir; **TLD** = tenofovir + lamivudine + dolutegravir; **TEE** = tenofovir + emtricitabine + efavirenz; **TC** = Total cholesterol; **TG** = Triglycerides; **VL** = viral load

SOUTH AFRICAN ART CLINICAL GUIDELINES 2019

(Infants and children < 10 years or < 35kg)

First edition February 2020

NEED HELP?

Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline

0800 212 506 / 021 - 406 6782

Alternatively "WhatsApp" or send an SMS or "Please Call Me" to 071 840 1572

www.mic.uct.ac.za

ART ELIGIBILITY AND DETERMINING THE TIMEFRAME FOR ART INITIATION

WHO IS ELIGIBLE?

All people living with HIV (PLHIV) regardless of age, CD4 cell count and clinical stage. ART should be initiated within 7 days unless there is a reason to defer.
Same day initiation is encouraged if client is clinically well and motivated

REASONS TO DEFER STARTING ART	WHEN TO START ART*
TB symptoms (cough, fever, recent weight loss, fatigue/always tired)	No TB: Same day or within 7 days Confirmed DS-TB at non-neurological site: CD4 < 50 cells/µL: within 2 weeks of starting TB treatment CD4 ≥ 50 cells/µL: within 8 weeks after starting TB treatment Confirmed DR-TB at non-neurological site: Start ART 2 weeks after TB treatment, once symptoms improved and TB treatment tolerated
Signs and symptoms of meningitis (headache, confusion, fever, neck stiffness or coma)	Investigate for meningitis before starting ART TBM (DS or DR): 4 - 8 weeks after starting TB treatment CM: 4 - 6 weeks after starting antifungal treatment
Serum CrAg-positive with no symptoms or signs of meningitis	2 weeks after starting fluconazole
Other acute illnesses e.g. *Pneumocystis jirovecii* pneumonia or bacterial pneumonia	Defer ART for 1 - 2 weeks after commencing treatment for the infection
Clinical symptoms or signs of liver disease	Do ALT and bilirubin. Investigate and manage possible causes before starting ART

SOCIAL CONSIDERATIONS

The following points are important to maximise adherence:
- One named, responsible primary caregiver able to administer ART to the child
- Disclosure to another adult living in the same house able to supervise the child's ART when primary caregiver is unavailable

*Clients already on ART should NOT have their treatment interrupted upon diagnosis of the above conditions

BASELINE CLINICAL EVALUATION

TEST AND PURPOSE	INTERPRETATION/ACTION
Recognise the client with respiratory, neurological or abdominal danger signs	Identify danger signs as classified in the IMCI Chart booklet. Refer if needed
Height, weight, head circumference (< 2 years), and measure MUAC Nutritional assessment to monitor growth, developmental stage and determine correct dosing of ART	Use the Road to Health Booklet (RTHB) as tool
Screen for symptoms of meningitis To diagnose and treat clients with cryptococcal and other forms of meningitis and reduce associated morbidity and mortality	Identify symptoms of headache, confusion or visual disturbances. Other symptoms may include fever, neck stiffness or coma. Refer the client for a lumbar puncture. Defer ART if meningitis is confirmed
Screen for TB To identify TB/HIV co-infection and eligibility for tuberculosis preventive therapy (TPT)	Suspect TB in clients with the following symptoms: coughing, night sweats, fever, unexplained weight loss, then confirm or exclude TB. Do GeneXpert in clients with a positive TB symptom screen
WHO clinical staging To determine immune status, priority of initiating ART and need for cotrimoxazole preventive therapy (CPT)	See eligibility for CPT under CD4 count section in baseline laboratory evaluation, below
Screen for depression in older children and epilepsy in all ages To exclude drug-drug and drug-disease interactions	Be aware of and monitor for potential drug interactions and neuropsychiatric side effects of efavirenz and dolutegravir
Neurodevelopmental screen To identify neurocognitive or developmental delays	Refer the child to the next level of care if child has not achieved the age-appropriate developmental milestone. Screening tool is available in RTHB

BASELINE LABORATORY EVALUATION (> 1 MONTH OLD)

TEST AND PURPOSE	INTERPRETATION/ACTION
Confirm HIV test result To confirm HIV status for those without documented HIV status	Ensure that the national testing algorithm has been followed
Haemoglobin (Hb) To identify anaemia and eligibility for AZT	Can use AZT if Hb ≥ 8 g/dL Treat anaemia according to Primary Health Care EML
CD4 cell count To determine eligibility for cotrimoxazole preventive therapy (CPT)	Eligibility for CPT: · All HIV-positive children ≥ 4 weeks and < 1 year · HIV-positive child 1 - 5 years with WHO stage 2, 3 or 4, or CD4 ≤ 25% · HIV-positive child > 5 years with WHO stage 2, 3 or 4, or CD4 ≤ 200

REGIMENS

FIRST-LINE ART IN NEW CLIENTS

Neonates# until 28 days of age (with birth weight ≥ 2.5 kg)	AZT + 3TC + NVP (see dosing below)

	Lamivudine (3TC)		Zidovudine (AZT)		Nevirapine (NVP)	
Target dose	2 mg/kg/dose TWICE daily (BD)		4 mg/kg/dose TWICE daily (BD)		6 mg/kg/dose TWICE daily (BD)	
Available formulation	10 mg/mL		10 mg/mL		10 mg/mL	
Weight (kg)	Dose in ml	Dose in mg	Dose in ml	Dose in mg	Dose in ml	Dose in mg
≥ 2.5 - < 3	0.5 mL BD	5 mg BD	1 mL BD	10 mg BD	1.5 mL BD	15 mg BD
≥ 3 - < 4	0.8 mL BD	8 mg BD	1.5 mL BD	15 mg BD	2 mL BD	20 mg BD
≥ 4 - < 5	1 mL BD	10 mg BD	2 mL BD	20 mg BD	3 mL BD	30 mg BD

- Dosing is based on the birth weight of the child. It is not necessary to change the dose before 28 days of age if for example the weight decreases in the first week or two of life
- Caregivers administering ARV medication to the child must be supplied with a syringe (2 mL or 5 mL) for each of the 3 ARVs and shown how to prepare and administer the prescribed dose. If required, bottles and syringes should be colour coded with stickers and a sticker of the relevant colour used to mark the correct dose on the syringe.

See protocol in the 2019 ART Clinical Guidelines for baseline testing and follow up for neonates < 4 weeks of age; Consult with a clinician experienced in paediatric ARV prescribing or the HIV hotline (0800 212 506), for neonates with birth weight < 2.5 kg or gestational age < 35 weeks, as well as infants ≥ 28 days of age but < 42 weeks corrected gestational age or weight < 3 kg

≥ 4 weeks of age, **and** ≥ 42 weeks gestational age **and** ≥ 3 kg, but < 20 kg	ABC + 3TC + LPV/r
≥ 20 kg to < 35 kg or < 10 years of age	ABC + 3TC + DTG
≥ 35 kg and ≥ 10 years of age	Transition to adult and adolescent regimens

SWITCHING TO DTG IN CHILDREN WHO ARE ON FIRST-LINE PAEDIATRIC REGIMENS

Before switching to DTG, discuss risks and benefits with caregiver and only switch if caregiver chooses to switch

To switch, client must:
- Weigh ≥ 20 kg$^{\Psi}$, **and**
- VL < 50 (in the last 6 months) **or**
- VL 50 – 999 in the last 6 months and on repeat VL after 3 months VL is ≤ 999 copies/mL

Current regimen	New regimen
ABC + 3TC + LPV/r	ABC + 3TC + DTG
ABC + 3TC + EFV	

ΨIf child is ≥ 35 kg and ≥ 10 years: refer to adolescent and adult poster for changing ABC to TDF

SECOND- AND THIRD-LINE REGIMENS WITH CONFIRMED VIROLOGICAL FAILURE

All children with confirmed virological failure should be discussed with an expert

	NNRTI-BASED REGIMEN		PI-BASED REGIMEN FOR > 2 YEARS¥			INSTI-BASED REGIMEN FOR > 2 YEARS¥	
Regimen	(ABC or AZT) + 3TC + **(EFV or NVP)**		(ABC or AZT) + 3TC + **(LPV/r or ATV/r)**			(ABC or AZT) + 3TC + **DTG**	
Resistance Testing	Resistance test **not** required		Resistance test required. PI resistance present or genotype unsuccessful?			Resistance test required. InSTI resistance present?	
			No		Yes	No	Yes
Weight	< 20 kg	≥ 20 kg	< 20 kg	≥ 20 kg	All	All children on DTG will be ≥ 20 kg	
New regimen	(AZT or ABC) + 3TC + LPV/r	**2 NRTIs + DTG** In consultation with an expert ensure at least one active NRTI# If NRTI activity cannot be confirmed: **2 NRTIs + PI/r**	Continue current regimen and address adherence	**2 NRTIs + DTG** In consultation with an expert ensure at least one active NRTI# If NRTI activity cannot be confirmed: **2 NRTIs + PI/r**	Refer to third-line committee	**2 NRTIs + DTG** In consultation with an expert ensure at least one active NRTI# If NRTI activity cannot be confirmed: refer to third-line committee	Refer to third-line committee

¥In some cases, for example where LPV/r wasn't dose adjusted with rifampicin containing TB-treatment, a resistance test may be considered sooner. Discuss with an expert;
#AZT can be used if the client has only been exposed to ABC previously. Discuss with expert if unsure

Based on the 2019 ART Clinical Guidelines for the Management of HIV in Adults, Pregnancy, Adolescents, Children, Infants and Neonates

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FOLLOW-UP TESTING IN CLIENTS ON ART

At **every** visit:
- Height, weight, head circumference (< 2 years) and development (remember to adjust ART dosage according to weight)
- Clinical assessment
- Ask about side-effects
- TB & other opportunistic infection screen
- Neurocognitive assessment
- WHO staging

TEST	ACTION/INTERPRETATION
CD4 count (cells/µL) At month 12 on ART. Repeat 6 monthly if VL ≥ 1000 or until client meets criteria to stop CPT	Stop cotrimoxazole once ART-associated immune reconstitution has occurred: • **HIV-positive infants < 12 months** should remain on CPT • **1 – 5 years:** If CD4 percentage ≥ 25% (If previous PJP, stop at 5 years old if meets ≥ 5 years category) • **≥ 5 years:** If CD4 count ≥ 200
Viral Load (VL) (copies/mL) Month 6, 12 and then 12-monthly if VL suppressed	

VL	Response
≥ 1000	Do thorough assessment of the cause of an elevated VL: consider adherence problems, intercurrent infections, incorrect ART dose, drug interactions and resistance. Implement interventions, including adherence support. Repeat VL in 3 months If VL still ≥ 1000 and child on **NNRTI-based** regimen: Consider switching to second-line if virological failure confirmed, i.e. VL ≥ 1000 on 2 consecutive occasions and adherence issues addressed If VL still ≥ 1000 and child is on **PI- or InSTI (DTG)-based** regimen: Do resistance testing if virological failure confirmed, i.e. VL ≥ 1000 on at least 3 occasions over the course of 2 years, or VL ≥ 1000 with signs of immunological or clinical failure (i.e. declining CD4 and/or opportunistic infections)
50 – 999	Do thorough assessment of the cause of an elevated VL. Consider adherence problems, intercurrent infections, incorrect ART dose, drug interactions and resistance. Implement interventions, including adherence support. Repeat VL in 3 months. If VL 50 - 999 again, repeat in 6 months. For VL < 50 or ≥ 1000 follow table
< 50	Continue routine VL monitoring and routine adherence support. Client is doing well

DO THE FOLLOWING TESTS IF THE CLIENT IS ON THE DRUG THAT MAY CAUSE THE ADVERSE EVENT

DRUG	TEST	FREQUENCY	ACTION/INTERPRETATION
AZT	FBC + differential WCC	At months 3 and 6, thereafter if clinically indicated	Hb ≥ 8 g/dL: Continue AZT Hb < 8 g/dL or neutrophil count persistently < 1000 cells/µL: Use alternative – consult with expert
PI-based regimen (LPV/r, ATV/r, DRV/r)	Cholesterol + Triglycerides (TG)	At month 3, if above acceptable range, do fasting cholesterol and TG	To monitor PI-related metabolic side-effects. If TG > 10, refer. If TC elevated, obtain expert advice.
TB treatment **or** NVP **or** EFV	ALT	If signs/symptoms of hepatitis (e.g. nausea, vomiting, jaundice)	If ALT is abnormal, refer to specialist or phone the HIV hotline (0800 212 506)
NVP	ALT	If rash develops	If ALT is abnormal, refer to specialist or phone the HIV hotline (0800 212 506)

CHILDREN WITH CONCOMITANT TUBERCULOSIS

Children taking ART and TB treatment together will have to tolerate a large amount of medication. Intensify adherence support. Remember to add pyridoxine (vitamin B6) to TB treatment

DTG-based regimen	**AND** receiving a **rifampicin**-containing TB regimen: Boosting of DTG required. The dosing frequency of DTG should be increased to 50 mg 12 hourly while on rifampicin-containing TB treatment and until two weeks after rifampicin has been stopped
EFV-based regimen	No dose adjustments or changes in ART regimen needed for DS-TB treatment
LPV/r-based regimen	**AND** receiving a **rifampicin**-containing TB regimen: Additional **ritonavir** should be added or the LPV/r dose increased according to the paediatric dosing chart. TB treatment should be dosed at standard doses. Stop additional ritonavir or increased dose 2 weeks after TB-treatment completed

3TC = lamivudine; **ABC** = abacavir; **ART** = antiretroviral therapy; **ATV/r** = atazanavir and ritonavir; **AZT** = zidovudine; **CM** = cryptococcal meningitis; **CPT** = cotrimoxazole preventive therapy; **CrAg** = cryptococcal antigen; **DTG** = dolutegravir; **DRV/r** = darunavir and ritonavir; **DS** = drug-sensitive; **DR:** drug-resistant; **EFV** = efavirenz; **eGFR** = estimated glomerular filtration rate; **HBV** = hepatitis B virus; **HBsAg** = hepatitis B surface antigen; **InSTI** = integrase strand transfer inhibitor; **LPR/r** = lopinavir and ritonavir; **LP** = lumbar puncture; **MUAC** = Middle upper arm circumference; **NRTI** = nucleoside reverse transcriptase inhibitor; **NNRTI** = non-nucleoside reverse transcriptase inhibitor; **NVP** = nevirapine; **PI** = protease inhibitor; **OI** = opportunistic infection; **PJP** = *Pneumocystis jirovecii* pneumonia; **TB** = tuberculosis; **TBM** = tuberculosis meningitis; **TDF** = tenofovir; **TLD** = tenofovir + lamivudine + dolutegravir; **TEE** = tenofovir + emtricitabine + efavirenz; **TC** = total cholesterol; **TG** = triglycerides; **WCC** = white cell count; **VL** = viral load

MONITORING FOR ALL PATIENTS AT FIRST ANC VISIT

TB screening and sputum Gene Expert (GXP)[$] *To identify TB suspects and assess TPT eligibility*	**TB diagnosed:** start TB Rx. If on ART, continue. If not yet on ART: see algorithm on centre spread **TB excluded:** start ART. If CD4 > 350, defer TPT until 6 weeks postpartum. If CD4 ≤ 350, initiate TPT for 12 months
CrAg (cryptococcal antigen), if CD4 ≤ 100 *To treat or provide prophylaxis for cryptococcal meningitis*	**If CrAg-positive**: refer for urgent LP and patient should be discussed with an expert. Fluconazole is teratogenic. Defer ART if ART-naïve, but don't stop ART if already on ART **If CrAg-negative:** start or continue ART
Screen for chronic diseases *To identify high risk pregnancy*	Treat according to relevant guidelines
Nutritional assessment *To detect deficiency and provide necessary nutritional support*	All pregnant women should get calcium, folate and iron supplementation. Be aware that DTG interacts with some medicines: refer to PMTCT guideline p17. Women with BMI < 23: refer to dietician
Family planning	Provide counselling for safer sex, post-natal contraception and partner testing
STI and syphilis screening (RPR) *To identify and treat STIs*	**If RPR done before 20 weeks and negative:** repeat RPR at 32 weeks. Treat all women with a positive syphilis screening test irrespective of titre: refer to PMTCT guideline p11
Viral load, if on ART *To identify treatment failure*	See algorithm on centre spread. **Be sure to check results and respond quickly!**
Hb or FBC *To detect anaemia and/or neutropaenia*	Treat according to relevant guidelines
Mental health screening *To identify mental health issues*	Treat according to relevant guidelines
HBsAg[**], *if unknown* *To assess HBV status*	If HBsAg-positive: include TDF in regimen. Provide post-exposure prophylaxis of hepatitis B for infant as per relevant guidelines

[$] If the client has recently had TB, the GXP may give a false-positive. Please call an expert or the hotline to discuss; [**] If HBsAg negative and not immune, provide Hep B vaccination as per National Viral Hepatitis guidelines. Hep B vaccination is not contraindicated in pregnancy. If high-risk and status unknown at delivery, test.

MONITORING AT MONTHLY ANC VISITS: PATIENTS ON ART

TEST AND PURPOSE	TIMING AND RESPONSE
Viral load *To confirm viral suppression or detect virological failure timeously*	Refer to VL algorithm on previous page
CD4 count *To assess immunological status, risk of OIs and need for prophylaxis*	At 12 months on ART. Thereafter, repeat every 6 months until client meets criteria to discontinue CPT Stop CD4 monitoring if client's VL remains < 1000 c/mL. If VL > 1000 c/mL, monitor CD4 count every 6 months
TB symptom screening *To identify TB suspects and assess TPT eligibility*	Every clinic visit
FBC, if on AZT *To detect anaemia and/or neutropaenia*	At initiation, month 3, month 6, then annually
s-Creatinine[ϖ], if on TDF *To assess renal function and eligibility for TDF*	At initiation, month 3, month 6, month 12 and then annually. **If s-Creatinine[ϖ] > 85 µmol/L:** do not use TDF. See front page

[ϖ] Please note: calculated eGFR is not accurate during pregnancy. Serum creatinine and **not** eGFR should be used

BREASTFEEDING

- Breastfeeding should be initiated within one hour of delivery
- Exclusive breastfeeding for first 6 months of life
- If mother is suppressed on ART, mixed feeding is not a reason to stop breastfeeding
- Introduction of age-appropriate solids from 6 months onwards
- Continue breastfeeding until 2 years of age or older
- Ensure mother is on ART, adherent and VL is suppressed
- It is recommended that women with a VL ≥ 1000 c/mL on first-line ART continue to breastfeed. Infant prophylaxis should be extended/restarted while a concerted effort is made to re-suppress the mother's VL
- Stopping breastfeeding should be done **slowly**, over a month
- Breastfeeding should be avoided in mothers who are failing second- or third-line

WHAT DOES EXCLUSIVE BREASTFEEDING MEAN?
For the first six months of life, the baby only gets mother's milk and medication. This means no water, formula, other foods or fluids

3TC = lamivudine; **ABC =** abacavir; **ART =** antiretroviral treatment; **ATV/r** = atazanavir/ritonavir; **AZT** = zidovudine; **CPT** = cotrimoxazole preventive therapy; **CrAg** = cryptococcal antigen; **DTG =** dolutegravir; **EFV =** efavirenz; **FTC** = emtricitabine; **GXP** = Gene Expert TB test; **Hb** = haemoglobin; **HCT** = HIV counselling and testing; **HIV** = human immunodeficiency virus; **IRIS** = immune reconstitution syndrome; **LP** = lumbar puncture; **LPV/r** = lopinavir/ritonavir; **MTCT =** mother to child transfer; **NTD =** neural tube defect; **NVP =** nevirapine; **OI** = opportunistic infections; **PCR =** polymerase chain reaction; **PICT** = provider-initiated counselling and testing; **PMTCT** = prevention of mother to child transfer; **LTFU =** lost to follow-up; **RTHB =** road to health booklet; **Rx =** treatment; **sCr** = serum creatinine; **STI =** sexually transmitted infections; **TDF** = tenofovir; **TEE** = tenofovir + emtricitabine + efavirenz; **TLD** = tenofovir + lamivudine + dolutegravir; **TPT =** tuberculosis preventive therapy; **VL** = viral load; **WOCP** = woman of childbearing potential

PMTCT FOR MOTHERS 2019

First version April 2020

RECOMMENDED REGIMENS

TLD is the preferred regimen in pregnant women, after 6 weeks of completed gestation (4 weeks post-conception), and in women who are not actively trying to conceive.
In order to make an informed choice between a DTG- or EFV-based regimen, provide the mother with all the necessary information, including the potential risk of NTDs and contraceptive choices

UNBOOKED/PRESENTS IN LABOUR

Women not on ART, who test HIV-positive in labour	Stat dose of TLD + NVP. Start life-long ART the next day	Check s-Creatinine[ϖ] and CD4. Review results at 3-6 day visit and adapt ART accordingly

[ϖ] Please note: calculated eGFR is not accurate during pregnancy. Serum creatinine and **not** eGFR should be used

FIRST-LINE ART FOR PREGNANT AND BREASTFEEDING WOMAN
(> 6 WEEKS OF PREGNANCY OR 4 WEEKS POST-CONCEPTION)

If a pregnant woman presents to the clinic before 6 weeks of pregnancy (4 weeks post-conception), contact the HIV hotline

		Preferred regimen
ART-naïve		TLD[*] (refer to algorithm on next page)
Contra-indications to TDF	Renal disease (sCr > 85)	ABC/AZT + 3TC + DTG[*]
	Weight < 35 kg	ABC + 3TC + DTG[*]
Already on TEE	VL < 50 within last 6 months	Offer switch to TLD[*]
	VL > 50 within last 6 months	See VL algorithm on the next page
Not currently on ART and previously on TEE e.g. PMTCT or LTFU on ART If previous ART was not TEE, contact hotline		VL < 50 while on TEE: TLD[*] Unsuppressed VL or no documented VL while previously on ART: AZT + 3TC + DTG[*]

Keeping the mom's VL suppressed is the best way to protect her infant

*Before DTG initiation, all women and adolescent girls of childbearing potential must be appropriately counselled on the potential risk of NTDs with DTG use around conception and within the first 6 weeks of pregnancy (4 weeks post-conception). They should be provided with their choice of contraception if not pregnant

SECOND-LINE ART FOR PREGNANT/BREASTFEEDING WOMEN
If HBV status unknown, check HBsAg

Current failing regimen	Second-line regimen	
	HBsAg negative	**HBsAg positive**
TDF + 3TC/FTC + EFV/NVP	AZT + 3TC/FTC + DTG	AZT + TLD
	If DTG not suitable[α]: AZT + 3TC/FTV + LPV/r	**If DTG not suitable[α]:** TDF + 3TC/FTC + LPV/r
TLD (> 2 years)	AZT + 3TC/FTV + LPV/r	TDF + 3TC/FTC + LPV/r
AZT/TDF + 3TC/FTC + LPV/r or ATV/r (> 2 years)	**No PI resistance:** continue ART, address adherence. If intolerance to LPV/r is affecting adherence, discuss substitutions with hotline or expert **PI resistance:** refer to 3rd line committee	

[α] DTG should not be used within the first 6 weeks of pregnancy. Women can make an informed choice to use or not use DTG

NEED HELP?

Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline

0800 212 506 /021 406 6782

Alternatively "WhatsApp" or send an SMS or "Please Call Me" to 071 840 1572

www.mic.uct.ac.za

Based on the Guideline for the Prevention of Mother to Child Transmission of Communicable Infections . National Department of Health, South Africa. 2019.

This publication was supported under funding provided by the Global Fund to Fight AIDS, Tuberculosis and Malaria through the National Department of Health of South Africa and the NDoH Pharmacovigilance Centre for Public Health Programmes. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Global Fund or the National Department of Health of South Africa

PMTCT FOR INFANTS 2019

First version April 2020

INFANT HIV PROPHYLAXIS AT BIRTH

RISK	MOTHER SCENARIO	INFANT TREATMENT
LOW RISK INFANT (BREASTFED OR EFF)	• Mother VL < 1000 c/mL at delivery	**NVP at birth and daily for 6 weeks**
HIGH RISK INFANT AND BREASTFED	• Mother not on ART at delivery, or • Mother on ART with HIV VL ≥ 1000 copies/mL at delivery, or prior 12 weeks • No HIV VL result available at delivery or prior 12 weeks	**AZT for 6 weeks** **+** **NVP for a minimum of 12 weeks** Infant NVP only discontinued after confirmation of maternal VL < 1 000 copies/mL and/or until 4 weeks after cessation of all breastfeeding
HIGH RISK INFANT AND EFF FROM BIRTH	• Mother not on ART at delivery, or • Mother on ART with HIV VL ≥ 1000 copies/mL at deliv-ery, or prior 12 weeks • No HIV VL result available at delivery or prior 12 weeks	**AZT + NVP for 6 weeks** Provided that avoiding breastfeeding is documented and sustained

INFANT HIV PROPHYLAXIS AFTER DELIVERY

RISK	MOTHER SCENARIO	INFANT TREATMENT
HIGH RISK INFANT DURING THE BREASTFEEDING PERIOD	• Mother who tests HIV-positive during breastfeeding with continued breastfeeding or has breastfed in the past week, regardless of infant's age • Breastfeeding mother with VL ≥ 1000 after previous suppression on ART	**AZT for 6 weeks** **+** **NVP for a minimum of 12 weeks** Infant NVP only discontinued after confirmation of maternal VL < 1 000 copies/mL If the mother decides to stop breastfeeding, prophylaxis should be continued for 4 weeks after cessation of all breastfeeding
UNDEFINED RISK	• Mother who tests positive after the baby is born and is not breastfeeding or stopped breastfeeding > 1 week ago	**No ARV prophylaxis**

INFANT TESTING

PCR results must be checked within 7 days. If positive, stop prophylaxis, start ART and do confirmatory test

Mom HIV-positive during pregnancy or diagnosed during labour	• PCR at birth • PCR at 10 weeks • PCR at 6 months • Rapid test at 18 months • Age-appropriate test* 6 weeks after stopping breastfeeding
Mother who tests HIV-positive during breastfeeding (continued or has breastfed in the past week) Mother has VL > 1000 after previous suppression on ART	• PCR immediately • PCR at 10 weeks • PCR at 6 months • Rapid test at 18 months • Age-appropriate test* 6 weeks after stopping NVP • Age-appropriate test* 6 weeks after stopping breastfeeding
Unknown status of mother; no continued breastfeeding (includes orphans and aban-doned babies)	• PCR and rapid test immediately: PCR-positive: confirm with second PCR/VL PCR-negative: repeat PCR at 10 weeks old or 4 weeks after stopping NVP • PCR at 6 months • Rapid Test at 18 months

*AGE-APPROPRIATE TESTING IN INFANTS

AGE OF CHILD	HIV SCREENING TEST	HIV CONFIRMATORY TEST
< 18 months	PCR	PCR
18 months - 2 years	Rapid	PCR
> 2 years	Rapid	Rapid

- Test a symptomatic child any age
- Any child under two years old with a positive HIV-PCR or a positive HIV rapid test should have their HIV status confirmed with an HIV-PCR test on a **new** sample
- At the clinician's discretion, the HIV-PCR may be replaced by a viral load test, which has the advantage of both confirming the HIV diagnosis and providing a baseline VL for monitoring the child's response to ART
- **Any child who tests HIV-positive should initiate ART according to the Paediatric ART guideline as a matter of urgency**
- Do not wait for the confirmatory result before initiating ART but ensure result is checked

Based on the Guideline for the Prevention of Mother to Child Transmission of Communicable Infections . National Department of Health, South Africa. 2019, updated March 2020.

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EMGuidance digital platform

EMGuidance (short for Essential Medical Guidance) is a mobile- and web-based medicines and treatment platform for medical professionals. We are pleased to announce that we have partnered with the National Department of Health to launch the 2019 guidelines for antiretroviral therapy (ART) and the prevention of mother-to-child transmission of communicable infections (PMTCT) on the EMGuidance platform.

About EMGuidance

EMGuidance offers **free** access to comprehensive, up-to-date, locally relevant, evidence-based medicines information and guidelines at the touch of a button. The platform is accessible via your desktop or smartphone. The platform is used by over 26 000 healthcare professionals across South Africa. View this video to see how it works: https://youtu.be/rGRefOK8-y4

Follow these two steps to access the 2019 guidelines:

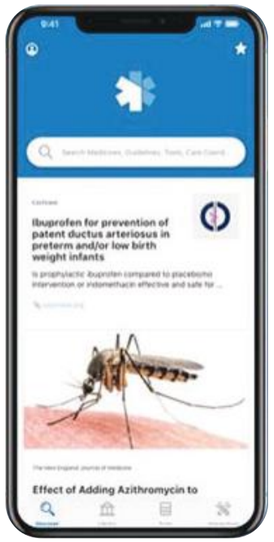
1. Sign up to access EMGuidance on Google Play, the Apple App Store or via Web:
   - **Google Play:** https://play.google.com/store/apps/details?id=emguidance.tompsa&hl=en_ZA
   - **App Store:** https://apps.apple.com/za/app/essential-medical-guidance/id789625087
   - **Web:** http://emguidance.com
2. Download the latest guidelines: Tap on the 'Library' icon on the home screen. Select the 'Guidelines' tab, followed by the '+' icon. Browse through the available guidelines and select the relevant guidelines you want to download by checking the box next to the guideline title. A green button to 'Download Selected Guidelines' will appear on the bottom of the screen.

For more information, read the following articles applicable to your device:

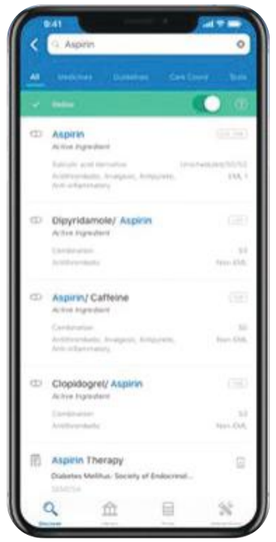
- **Android:** https://intercom.help/essential-medical-guidance/en/articles/3529816-how-to-download-the-latest-guidelines-on-the-emguidance-platform-for-an-android-device
- **iOS:** https://intercom.help/essential-medical-guidance/en/articles/3529793-how-to-download-the-latest-guidelines-on-the-emguidance-platform-for-an-ios-device

Should you have any feedback or queries for our team regarding these guidelines or use of the platform, feel free to contact us at:

support@emguidance.com

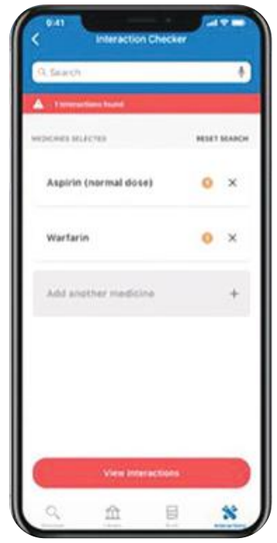


Free instant access to locally relevant medicines, info and clinical guidelines.



Medicines
South Africa's most comprehensive, evidence-based medicines resource.

Medicines
Each medicine has a detailed monograph.



Interaction checker
Improve the safety and effectiveness of prescribed medicines.

Modern ART for South Africa

New treatment literacy materials for people living with HIV and their communities

The Treatment Action Campaign (TAC), in collaboration with HIV i-Base, UK, have launched a new website, app and YouTube channel.

These resources provide basic information on antiretroviral treatment, as well as treatment for co-infections. Everything has been developed with and for communities.

The free app also includes handy tools to help people manage and track their treatment, including a reminder to take their antiretrovirals (ARVs) and a test result tracker.

The YouTube channel shows short films, put together during lockdown to replace TAC's face-to-face treatment literacy training at facilities and community groups. New ones are added every week or so.

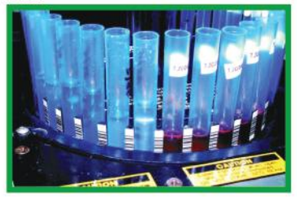
Modern ART materials also include posters and booklets, which will be available free for clinics and community groups. Information on how to order these is available on the website: https://modernartforsouthafrica.co.za

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.

NATIONAL HIV & TB HEALTH CARE WORKER HOTLINE

	0800 212 506 **021 406 6782**		**E-MAIL** **pha-mic@uct.ac.za**
	SMS/PLEASE CALL ME/WHATSAPP **071 840 1572**		**WEBSITE** **www.mic.uct.ac.za**
	FACEBOOK **HIV & TB Health Care Worker Hotline, South Africa**		**FREE APP ON GOOGLE PLAY** **SA HIV/TB Hotline**

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

What questions can you ask?

The 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. They have direct access to the latest information databases, reference sources and a team of clinical consultants.

When is this service available?

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

UNIVERSITY OF CAPE TOWN · MIC · CLINICAL PHARMACOLOGY

MEDICINES INFORMATION CENTRE

NATIONAL HIV & TB HEALTH CARE WORKER HOTLINE 0800 212 506

SOUTHERN AFRICAN HIV CLINICIANS SOCIETY

2021 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

- **Doctors** **R400 per annum**
- **Nurses & Allied Health Professionals** **R300 per annum**
- **Pharma Package** **R14000 per annum**
  includes 10 pharma rep memberships, 2 mailers and 1 social media event / article
- **Organisation (NGO) Package** **R3500 per annum**
  for 10 staff memberships or R6000 per annum for 20 staff memberships

Signed: _____

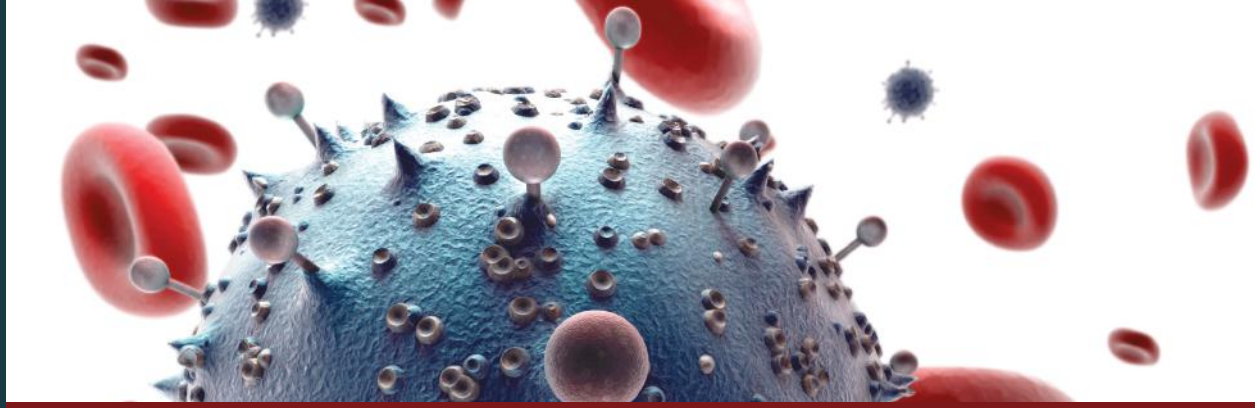
Date: _____

☐ 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 sahivcs@sahivcs.org or post to: Suite 233, Post Net Killarney, Private Bag x2600, Houghton 2041.

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



UNITING NURSES IN HIV CLINICAL EXCELLENCE, BECOME A MEMBER.




Who are we?

SAHCS is a member-based society that promotes quality, comprehensive, evidence-based HIV healthcare, 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 healthcare workers take their practice to a new level. We are constantly improving and expanding our knowledge, and advocating for clinical and scientific best practice.

Member benefits

Join today and gain instant support from a credible organisation. SAHCS helps connect you with the best minds in HIV healthcare. Build your knowledge, advance your profession and make a difference by getting involved now!

- Free online subscription to the *Southern African Journal of HIV Medicine*
- 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
- Listing in the Society's online HIV provider referral network

SAHCS CONTACT DETAILS:

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

Post: Suite 233, Private Bag X2600, PostNet, Killarney, Houghton, 2041

www.sahivsoc.org