

### 5. Third-line ART recommendation

Once the Committee has agreed upon a recommended regimen for the patient, the TLART secretary sends an email with this recommendation to the email address/es supplied in the application form. It is important that the facility's pharmacy is notified of this as they will have to procure this medication specifically for the patient.

*Role of the nurse: to ensure that the pharmacy has received the patient's regimen and is procuring the medicines. To follow-up with the clinician and patient on the date for the patient to fetch their medicine.*

### 6. Patient monitoring and continued adherence counselling

Routine monitoring should be continued in those patients on TLART, according to the ART guidelines.<sup>4</sup> It is desirable that patients that are initiated on TLART have their VL repeated after 3 months, to check if the treatment is working appropriately and their VL is decreasing. As the patient

is taking new medicines, they should also be asked whether they are experiencing any new adverse effects, which should be reported to the doctor. These patients also need continued counselling and adherence support, as they may be on the last effective line of treatment for HIV, making it important that this regimen remains effective for as long as possible.

*Role of the nurse: to continue monitoring the patient's response to treatment, provide adherence counselling, and ensure they have access to treatment support.*

### Conclusion

The management of patients with HIV has, for the most part, been delegated to nurses in the PHC setting. This has been shown to improve outcomes for patients, as well as improving access to these life-saving medicines. The nurse is a fundamental part of these successes, and their role can be extended into assisting doctors in identifying patients that are eligible for TLART, gathering important information from the patient especially with regards to treatment history and

concomitant medicine use, completing the TLART application form and preparing the patient for a DRT. Delays can be avoided when complete application forms, together with the DRT, are submitted to the TLART Committee, and the pharmacy is informed regarding the ordering of the patient's medication.

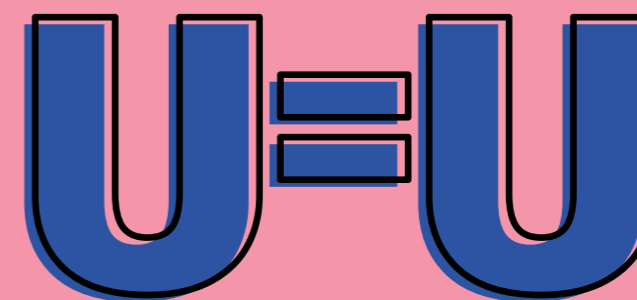
This short synopsis on the TLART programme demonstrates how vital the nurse's role is within the multidisciplinary team when addressing the complicated needs of treatment-experienced HIV-positive patients.

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UNDETECTABLE = UNTRANSMITTABLE



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# South Africa needs to embrace the Undetectable = Untransmittable (U=U) campaign

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It is more than 5 years since science has shown that viral suppression could stop the transmission of HIV. Four large studies (HPTN052, PARTERS, PARTNER2 and Opposites Attract) were conducted from 2007 to 2016 and included thousands of serodiscordant couples in which there was not a single case of sexual (vaginal or anal) HIV transmission from a virally suppressed partner.<sup>1</sup> These couples were engaging in condomless sex and not using pre-exposure prophylaxis (PrEP).<sup>1</sup> These clinical trials prove that HIV

treatment works as prevention against HIV transmission but translating these findings into population-level benefits has proven more difficult.

Based on earlier studies, the World Health Organization (WHO) recommended early treatment and national guidelines globally began to reflect the growing scientific consensus that HIV could not be sexually transmitted when the virus is undetectable.<sup>2</sup> Despite research bodies understanding that this

knowledge may relieve people living with HIV (PLHIV) of stigma associated with their HIV status, too many patients are unaware that viral suppression can stop the transmission of HIV.

UNAIDS' 2015 incremental treatment scale-up targets, and the even bolder 90-90-90 targets by 2020<sup>3</sup> were both met with collective failure and a minority of countries did reach their targets. Instead, the world is now on the fast track to epidemic control by 2030,

by expanding these testing, linkage to care and viral suppression targets to 95-95-95.<sup>4</sup> To help realise this, the Prevention Action Campaign launched the Undetectable = Untransmittable (U=U) campaign in 2016 to increase awareness of the relationship between viral suppression and the prevention of HIV transmission.<sup>5</sup> This revolutionary finding can relieve those living with HIV of stigma and the need for consistent condom use, while also encouraging individuals to attain and maintain viral suppression. The result is both individual well-being and lower population-level HIV transmission.<sup>5</sup> The shortfalls in viral load (VL) monitoring, and the concern that U=U does not protect against STIs and unwanted pregnancy, may be affecting U=U uptake in the region. These concerns could be addressed with comprehensive and clear messaging that

the benefits of U=U are not undermined by the increase of other unintended consequences of reduced condom use.

### South Africa's mixed progress on the 90-90-90 UNAIDS targets

The Thembisa model estimates show that, in South Africa in 2019, 92% of PLHIV knew their status.<sup>6</sup> University of Cape Town-based Dr Leigh Johnson stated "[this] is good and means we've met the first of the UNAIDS targets [...] We are unfortunately not doing well on the second target with only 71% of people diagnosed with HIV on treatment". This gap is despite South Africa being home to the largest HIV treatment programme in the world. "We exceeded the third target" said Johnson, noting that 91% of people on treatment were virally suppressed.<sup>6</sup>

### Will the status quo get South Africa to the end of the epidemic in 2030?

Even though, according to Johnson, the viral suppression rate among those on ART has exceeded the 90 percent target,<sup>6</sup> it is important that this indicator is interpreted in the context of low reported ART coverage. If the country accounts for all PLHIV in South Africa (those diagnosed, on treatment and not on treatment), more than 30% of them are not virally suppressed and are therefore potentially infectious.

Between 2010 and 2019 there has been a 57% reduction in the rate of new HIV infections in South Africa. As much as there is noticeable progress, this falls short of the UNAIDS interim target of a 75% reduction in new infections by

Despite U=U having proven to improve personal health, sexual safety, intimacy and self-image; reduce social stigma; and promote adherence and viral suppression,<sup>13</sup> the U=U message has not been formally endorsed in South Africa and the U=U message has not been spread sufficiently to those who need to hear it the most.

2020.<sup>6</sup> South Africa needs to better address the second target of 95 percent by increasing linkage to care, given that only 71% have been reached to date. This is the country's weak link and deserves the necessary resources and programming.

### Potential challenges to sustained viral load suppression

There are several challenges to viral load (VL) suppression, including ignorance of HIV status, stigma and discrimination, poor adherence to ART, and drug resistance. Pre-treatment drug resistance, also termed acquired drug resistance, is caused by ARV naïve people having acquiring HIV from someone with a resistant viral strain. Bessong et al.<sup>7</sup> maintain that the level of drug resistance in the pre-treated population in South Africa has increased over the years, although it is heterogeneous across and within provinces. The authors state that "At least one study has documented a pre-treated population with moderate (> 5%) or high (> 15%) levels of drug resistance in eight of the nine Provinces". Bessong et al. further mention that optimal management of the drivers of drug resistance in the pre-treated population will be beneficial in ensuring sustained viral suppression in at least 90% of those on ART, a key component of the 90-90-90 strategy.

As Bessong et al state, there is a need for implementation of optimal measures to promote adherence and enhance viral suppression in order for the country to curb the spread of the pre-treatment drug resistant virus. This translates to a need for South Africa to embrace the U=U messaging. One of the aims of this

campaign is to decrease the number of people who transmit drug resistant HIV, in the context of costly second-line ART. According to the current South African ART guidelines, these patients will not be tested for drug resistance prior to first-line treatment initiation.<sup>8</sup> They will be initiated on a first-line regimen thus limiting viral suppression success and negatively affecting the third UNAIDS 90 target and potentially spreading the virus while under monitoring.

### The U=U global movement

The U=U movement has engaged more than 1000 organisations from 100 countries with key populations on every continent. The consensus statement from researchers, health providers and advocates includes the scientific background for U=U and identifies gaps in scaling up the message.

Vietnam officially endorsed the U=U campaign via its national guidelines, with the Vietnam Authority for HIV/AIDS Control (VAAC) mobilising a movement to advocate for access to HIV services and to reduce HIV-related stigma and discrimination in men who have sex with men (MSM), transgender, and other key populations most affected by HIV.<sup>9</sup> Bach Mai, one of Vietnam's hospitals, was used as a pilot site for the U=U campaign. This site has provided HIV services for over 10 years, and is a centre of excellence in HIV treatment, with 98.4% of HIV patients achieving an undetectable viral load. Vietnam is also the first PEPFAR country to achieve viral suppression in over 95% of people on ART.<sup>9</sup>

Vietnam's success on the third UNAIDS 90-90-90 target shows us that U=U

is working which has a positive effect in combating HIV stigma and shame, and barriers to ART initiation. It has also played a role in motivating people to remain on treatment, thus enabling sustained VL suppression. If South Africa is to follow Vietnam's lead, it can end the HIV epidemic by 2030.

### U=U footprints in Africa?

The U=U campaign is already present in some African nations. In 2019, Ethiopia began a viral load movement in which a delegate stated "Mindful of the fact that HIV treatment with sustained viral suppression is the most effective, scientifically proven HIV prevention, as Undetectable equals Untransmittable".<sup>10</sup> In addition, Nigeria and Uganda launched a U=U campaign in 2019.<sup>10</sup>

Thomford et al.<sup>11</sup> state that short of a cure for HIV, U=U can substantially reduce the HIV burden and change the landscape of HIV epidemiology on the continent. From a public health perspective, the U=U concept will reduce stigma in PLHIV in sub-Saharan Africa and strengthen public opinion to accept that HIV infection is not a death sentence. This will also promote ART adherence by motivating PLHIV to achieve viral suppression within the shortest possible timeframe.

Even though ART coverage is not where it is expected to be in the African region, according to the UNAIDS report published in 2019, an estimated 67% of PLHIV were on treatment (up from 53% in 2015), representing 70% of the 21.7 million people accessing ARVs globally.<sup>12</sup> This is the first step toward achieving regional viral suppression but robust adoption of the U=U campaign by country states is lacking.

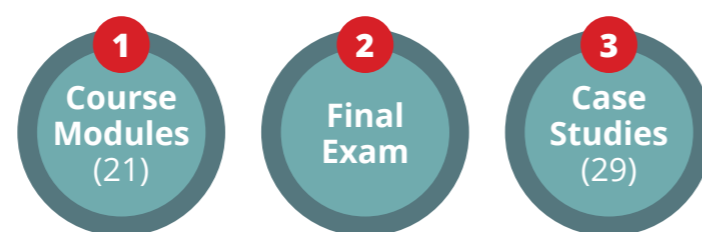
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## Can we bring the U=U messaging to South Africa?

Despite U=U having proven to improve personal health, sexual safety, intimacy and self-image; reduce social stigma; and promote adherence and viral suppression,<sup>13</sup> the U=U message has not been formally endorsed in South Africa and the U=U message has not been spread sufficiently to those who need to hear it the most - PLHIV, especially those newly diagnosed and those struggling with adherence. South African ARV guidelines<sup>8</sup> do not incorporate the U=U messaging, clinicians are not trained in it, and the message is not shared in the media. Currently the message is only shared by individual advocates and a few organisations on social media.

Organisations facilitating adherence clubs and support groups, with discussion topics centred around ARV adherence do not have adequate knowledge about U=U and it would be beneficial if group facilitators could be empowered to share the U=U message thus promoting ARV adherence and viral suppression. Clinicians conducting Provider Initiated Counselling and Testing (PICT) at health facilities and Community Health Workers conducting HIV testing (HTS) in the community should be enabled to confidently share the U=U message to newly diagnosed clients before linking them to treatment. This would allow for retention to start at recruitment.

## U=U awareness campaign is a solution to ending the epidemic!

An organisation led by South African Women Living with HIV has implemented the Positives Leading Prevention Initiative, a project that has successfully proven that a peer led U=U based project can succeed in decreasing a community viral load (VL) and could help the country in ending the HIV epidemic. With the start of the COVID-19 pandemic, the

organisation began a virtual support group which now has over 200 members across the country. When the group first started, members knew nothing about U=U nor the role of ARVs in preventing viral transmission, less than 60% of the members knew their VL, and 45% of members had a detectable VL. Since joining this virtual support group, more than 90% of members have a suppressed

VL, all of them know what VL means and the importance of treatment adherence in preventing HIV transmission.<sup>14</sup>

The question is, does South Africa have the political will to scale up such U=U programs? Only then will the scientific knowledge that viral load suppression prevents HIV transmission translate in to reality.

### U=U in action

The founder of this U=U project has been in a serodiscordant relationship for eighteen years and the couple spent thousands of rands on wanting to safely conceive their first-born daughter in 2009. In 2013, when wanting to conceive their second-born, the husband came across U=U studies and the couple decided to conceive naturally with no condom and no pre-exposure prophylaxis (PrEP), which they successfully did.

Their two daughters are both HIV-free and healthy, the husband remains HIV negative and the couple has since been relying on U=U completely. This shows us that U=U can give women living with HIV an opportunity to practise their sexual and reproductive health rights freely, with no fear of infecting their partner/s. Many serodiscordant couples are unaware of how to plan a healthy pregnancy, but the U=U message can help in reducing this anxiety and providing couples with the confidence to conceive safely.

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