



There is conclusive evidence that early initiation of antiretroviral treatment (ART) enhances the long term health outcomes of people living with HIV (PLHIV). Early and sustained ART treatment that leads to viral suppression benefits the health of PLHIV, reduces stigma and prevents the sexual transmission of HIV.

### The New Zealand AIDS Foundation (NZAF) advocates for and promotes:

- Regular testing for the early detection of HIV infection to maximise the health benefits for people with newly acquired HIV
- The prompt offering of ART to any person diagnosed with HIV, regardless of CD4 count, for whom it is deemed appropriate that they begin treatment
- The provision of continued support for ART treatment adherence
- The provision of information and education around the benefits of early treatment, including the health and prevention benefits of undetectable viral load for those for whom this is possible

### Early treatment delivers better long-term health outcomes for people diagnosed with HIV

Strong evidence supports the World Health Organisation (WHO) recommendation of ART for all people living with HIV (PLHIV) as soon as possible after diagnosis, without any restriction on CD4 count.

The HPTN 052 study found that initiating ART, when CD4 count was between 350 and 550 cells/mm<sup>3</sup>, significantly reduced the risk of AIDS, HIV-related illness and death and increased the likelihood of immune recovery. The risk of developing non-AIDS related illness was also greatly reduced.<sup>(1)</sup> The START trial showed that early initiation of ART at any CD4 count, improves quality of life outcomes for all people with HIV. Starting ART immediately, when CD4 count is over 500 cells/mm<sup>3</sup> is significantly more effective in preventing serious infections, non-HIV related illness and death than waiting until CD4 count drops to 350 cells/mm<sup>3</sup> or less.<sup>(2)</sup>

### People diagnosed with HIV should have prompt access to ART

The UNAIDS 90-90-90 targets to end HIV transmissions focus on scaling up universal access to ART for people diagnosed with HIV.<sup>(3)</sup> These targets are critical to improving health outcomes for PLHIV and ending new HIV transmissions.

To enable the 90-90-90 targets, access to ART must be made available promptly following diagnosis. This will ensure PLHIV realise the full benefits of treatment and are not lost from care. Untreated HIV can have detrimental effects at all stages of infection and can result in onward transmission of HIV.

WHO guidelines recommend offering rapid initiation of ART (within seven days) to all PLHIV following a confirmed HIV diagnosis and clinical assessment. For those who are ready to start, ART should be offered on the same day of diagnosis.<sup>(4)</sup>

The 2014 RapIT study from South Africa has shown that offering ART on the day of HIV diagnosis is associated with higher rates of ART initiation, retention, and increased likelihood of viral suppression a year later.<sup>(5)</sup> In 2013,

San Francisco launched the city wide Rapid ART Program for Individuals with an HIV Diagnosis (RAPID). The programme found that common barriers to accessing and initiating ART were reduced by offering ART on the same day as diagnosis.<sup>(6)</sup>

This said, it is important to remember that starting ART is a personal choice that should be made with full information and in consultation with an HIV specialist. A person's ability to take medication every day for the rest of their life, as directed, is critical to the success of ART. Complete adherence may not be possible for all PLHIV due to a number of other factors which must also be considered.

### HIV specialist care services must be resourced to facilitate prompt ART initiation

The New Zealand clinical workforce must be enabled to meet the demands of providing immediate access to ART following diagnosis. Access to and initiation of ART differs across New Zealand and is dependent on the specialist care available in each District Health Board area. NZAF advocates to District Health Boards to prioritise and enable the delivery of immediate ART to PLHIV following diagnosis.

### The benefits of an undetectable viral load for health, prevention and stigma

Aside from the health benefits of early and sustained ART, many PLHIV who are on treatment will be able to reach and maintain an undetectable viral load. An undetectable viral load is reached when the level of HIV in a person's blood is no longer able to be detected by a standard viral load test. An undetectable viral load also prevents the onward transmission of HIV to sexual partners.

Undetectable viral load is an empowering message for people living with HIV, encouraging them to start and stay on treatment, to keep them and their partners healthy. It also challenges how we talk about HIV, challenging HIV stigma by removing the fear and misunderstanding associated with HIV transmission.

## Treatment as Prevention (TasP) as part of a combination HIV prevention approach

The benefits of an undetectable viral load as an effective community level HIV prevention method is also known as Treatment as Prevention (TasP) or Test and Treat and is an important part of a combination HIV prevention approach. The UNAIDS 90-90-90 targets are based on a treatment as prevention approach aimed at increasing rates of testing and treatment initiation to drive down new HIV infections at a population level.

In 2015 Sweden reported a decline in HIV transmissions. This was attributed to the increased number (96%) of PLHIV who had reached an undetectable viral load due to early access to treatment.<sup>(7)</sup> More recently, the United Kingdom is attributing dramatic falls in new HIV diagnoses, at least in part, to increased rates of testing and treatment initiation.

## Data needs to inform efforts to improve ART initiation and community level viral suppression

International research shows that there is often considerable loss of engagement at each step in the 'cascade of care' from HIV diagnosis, linkage to care, provision of treatment, treatment adherence and achieving viral suppression. Ongoing 'cascade of care' research is needed in the New Zealand context so that we can evaluate HIV treatment and care services and identify gaps in provision and patients lost from care. Such data would help inform a more strategic response and would also enable us to report on targets such as the UNAIDS 90-90-90 targets to reduce HIV transmissions and end the AIDS epidemic.

***Increasing the number of PLHIV who are diagnosed early and are on treatment will improve long term health outcomes of PLHIV and reduce onward HIV transmissions, enabling our goal to end HIV transmission in New Zealand by 2025.***

### The New Zealand AIDS Foundation will:

- Advocate for the implementation of immediate initiation of ART following HIV diagnosis
- Advocate for testing, treatment and care policies that address stigma and discrimination and support long-term adherence to ART
- Educate and advocate for the effectiveness of undetectable viral load to reduce stigma and prevent sexual transmission of HIV
- Advocate for the benefits of early treatment as part of a combination HIV prevention approach

### A combination HIV prevention approach includes:

- Maximising condom use for the prevention of HIV and STIs
- Equitable PrEP uptake among those who need an alternative primary prevention intervention to condoms
- Reducing undiagnosed HIV infection through more timely and widespread testing
- Prompt treatment access and adherence support for PLHIV to maximise their health and maximise the chance of sustained viral suppression, subsequently halting the onward sexual transmission of HIV

## References

1. Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. Antiretroviral Therapy for the Prevention of HIV-1 Transmission. *New England Journal of Medicine*. 2016;375(9):830-9.
2. Group ISS. Initiation of antiretroviral therapy in early asymptomatic HIV infection. *N Engl J Med*. 2015;2015(373):795-807.
3. HIV/AIDS JUNPo, HIV/Aids JUNPo. 90-90-90: An ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS. 2014.
4. Organization WH. Guidelines for managing advanced HIV disease and rapid initiation of antiretroviral therapy, July 2017. 2017.
5. Long LC, Maskew M, Brennan AT, Mongwenyana C, Nyoni C, Maletle G, et al. Initiating antiretroviral therapy for HIV at a patient's first clinic visit: a cost-effectiveness analysis of the rapid initiation of treatment randomized controlled trial. *Aids*. 2017;31(11):1611-9.
6. Pilcher CD, Ospina-Norvell C, Dasgupta A, Jones D, Hartogensis W, Torres S, et al. The effect of same-day observed initiation of antiretroviral therapy on HIV viral load and treatment outcomes in a US public health setting. *JAIDS Journal of Acquired Immune Deficiency Syndromes*. 2017;74(1):44-51.
7. Gisslén M, Svedhem V, Lindborg L, Flamholc L, Norrgren H, Wendahl S, et al. Sweden, the first country to achieve the Joint United Nations Programme on HIV/AIDS (UNAIDS)/World Health Organization (WHO) 90-90-90 continuum of HIV care targets. *HIV medicine*. 2017;18(4):305-7.